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Evaluation of Governance of Local Government Information System in Ministry of Home Affairs of the Republic of Indonesia

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ABSTRACT
The purpose of this research is to identify, analyze, and understand the governance of regional government information systems at the Ministry of Home Affairs, as well as to design an ideal model for the governance of regional government information systems at the Ministry of Home Affairs. This study uses the theory of policy evaluation proposed by Dunn (2000:610). The research method used is qualitative research with a descriptive approach. Data collection techniques are carried out through interview, observation, and documentation. The results of the study indicate that the Regional Government Information System policy is not optimal due to the following reasons: there is no *Steering Committee* specifically assigned to supervise and manage development and implementation. The absence of a special committee causes a lack of cross-echelon coordination in strategic decision-making related to *SIPD* development. Many technical and policy constraints related to *SIPD* that require cross-directorate decision-making are not resolved quickly, resulting in delays in implementation. There is no formal mechanism for monitoring, evaluating, and following up on policies that are integrated into one leadership structure. The appropriate model for optimizing the Regional Government Information System Policy is called the *SIPD Governance Model*. This model refers to four (4) *SIPD* governance components, namely: *SIPD service catalog*, *Service management organization*, *Definition of Level*, and *SIPD Service Operational Support System*.

Keywords: Policy Evaluation, Regional Government Information System, Governance

INTRODUCTION

Law Number 23 of 2014 concerning Regional Government assigns the Ministry of Home Affairs to provide guidance and supervision of local government in a rational manner. In this case, local governments are required to provide government information that includes regional development and financial information managed in the government information system (John Michael, 2019; Kaganova & Telgarsky, 2018; Mansoor, 2021; Razak et al., 2021; Wilson, 2020). Several presidential regulations, such as No. 95 of 2018 concerning *Electronic-Based Government Systems* (*SPBE*) and No. 39 of 2019 concerning *One Data Indonesia*, also aim to strengthen the integration of data and information in government management. The *Regional Government Information System* (*SIPD*) is an implementation of the law, designed to increase transparency and efficiency in the planning and budgeting process at the regional level (AHMAD et al., 2020; Dharmawati et al., 2021; Hilabi et al., 2021; Muda et al., 2017; Wurangian et al., 2024).

SIPD functions to unify planning, finance, and reporting data throughout Indonesia, making it easier to evaluate and supervise government implementation. Although there are about 27 thousand government applications today, only a few are integrated, causing information related to regional financial management to not always be up to date. Responding to this, President Joko

Widodo emphasized the importance of supervising state financial allocation to be on target, especially in programs to handle stunting and alleviate extreme poverty. With the existence of *SIPD*, it is hoped that all regions can use the same application, which will facilitate the identification of programs that contribute to poverty alleviation.

The process of integrating *SIPD* into a general application has started since June 2021 and has now been connected to various applications of ministries and institutions. With *SIPD*, it is hoped that it can reduce the number of existing applications, save costs, and increase supervision from the central to the regions. This data integration is in line with the president's instructions regarding *SPBE*, facilitating better information management, and supporting transparency and accountability in regional financial management. In addition, government digitalization is one of the priority sectors in the *Digital Indonesia Roadmap 2021-2024*, which requires the development of infrastructure and human resources to ensure the successful implementation of this system throughout Indonesia.

Digital transformation in Indonesia still faces challenges, especially related to infrastructure and human resource capacity in disadvantaged areas (Mallisetty, 2023; Saarikko et al., 2020; Zhang et al., 2023). The Ministry of Home Affairs needs to focus on technical training for local government officials and strengthen digital infrastructure to increase public trust in the government. In this context, several legal regulations have been issued to support regional financial management and electronic-based government systems, including Law Number 23 of 2014 and several relevant Presidential Regulations. The *Regional Government Information System* (*SIPD*) aims to manage regional development data and provide information needed for decision-making, as well as improve the performance of local governments through technology-based cooperation (Dharmawati et al., 2021; Nurindahsari et al., 2022; Putra & Simangunsong, 2022; Salindeho, 2021; Wurangian et al., 2024).

SIPD serves to unify planning, finance, and reporting data throughout Indonesia, making the process easier and more integrated. This system is expected to minimize the budget needed for system development, accelerate the electronification of local government transactions, and provide clear information to the public about the administration of government. In the context of good governance, the principles of openness, responsibility, fairness, engagement, and compliance are of paramount importance. Openness ensures transparency of information, while responsibility requires governments to obey the law and act fairly towards all citizens.

In the era of bureaucratic reform, regional financial management can be carried out through a sophisticated management information system, allowing the public to access information related to financial management quickly and transparently. A mature planning strategy is needed to ensure that regional development priorities and needs can be met. The process of preparing planning and budgeting documents at the *Regional Apparatus Work Unit* (*SKPD*) level must be well designed so that the implementation of regional development can run efficiently and in a directed manner. Thus, the use of technology in regional financial management will further support transparency and accountability in government.

Presidential Regulation Number 114 of 2021 regulates the scope of the *Directorate General of Regional Financial Development* in the management of regional financial information systems. In this context, the *Data and Information Systems Center* (*Pusdatin*) plays a key role in the development of the *Electronic Government System* (*SIPD*) in the Ministry of Home Affairs and local governments. The functions of the *Pusdatin* include the preparation of technical policies, substantive support, monitoring, evaluation, information technology development, and administrative management of the state civil apparatus. Thus, *Pusdatin* is responsible for ensuring the management and implementation of an efficient and accountable information system within the ministry.

SIPD provides three types of interconnected local government information: regional development information, regional financial information, and other government information. Each type of information has subcategories, such as budget planning, implementation, accounting, and regional financial accountability. The main objective of the *SIPD* is to increase transparency and accountability in the implementation of local government and to provide integrated and electronic-based information services. As of 2023, *SIPD* has been implemented in all local governments in Indonesia, with a number of local governments already using it in various stages of the budget process.

Although *SIPD* has been widely adopted, there are still many obstacles faced by regions regarding its use. Of the total 14,661 reported issues, 9,960 have been resolved, while 4,701 are still in process. This shows the need for better information technology governance to ensure the successful implementation of *SIPD*. In this study, the main focus is to identify and analyze the governance of local government information systems and formulate an ideal model for its implementation. It is hoped that the results of this research can provide insight and contribute to the development of government science and policies related to information systems at the Ministry of Home Affairs.

Previous studies have examined the adoption of digital government systems in various contexts, yet a gap remains regarding the integration and governance of local government information systems, particularly in Indonesia. For instance, a study by Kurniawan and Tan (2021) analyzed the effectiveness of electronic government systems in improving service delivery but did not specifically focus on how these systems, such as *SIPD*, are integrated into regional governance frameworks. This lack of focus on the integration aspect means that the full potential of technology to drive efficient governance in regional contexts remains underexplored. Similarly, research by Fajrin et al. (2022) investigated regional financial management but failed to address the challenges related to the technical implementation of integrated systems like *SIPD*. Both studies fall short in providing a comprehensive model for overcoming the specific obstacles that hinder the full integration of digital platforms in regional governance, such as data integration and infrastructure limitations in remote areas.

This study aims to identify the challenges in implementing *SIPD* across Indonesian local governments and to propose an ideal governance model that enhances its integration and functionality. The findings of this research will contribute to the development of government

policies and improve the governance of local government information systems, ensuring better transparency and accountability in regional financial management.

RESEARCH METHOD

This research adopted the paradigm of post-positivism. Patton explained that people strive to understand the environment in which they live and work. The post-positivism paradigm was chosen in this study because of the complexity in the view and understanding of the meaning of the implementation of local government information systems that aimed to improve regional financial management. Therefore, it was necessary to search for a broader meaning than simply categorizing and limiting its meaning.

Creswell revealed that researchers should consider the participants' perspectives on the situation being studied. This opinion was in line with Sherman and Webb's explanation, quoting Loraine Blaxter, where the qualitative approach focused on direct experiences because they were "lived," "felt," and "experienced." Thus, the paradigm of post-positivism had similarities with the qualitative approach as expressed by Blaxter earlier. Some of the explanations that had been given in the background, subject matter, and research supported what Creswell and Sherman and Webb had stated, so that the paradigm of post-positivism could facilitate this research to achieve its goals. For this reason, the method applied in this study was a qualitative method. In addition, this type of research was descriptive in nature and aimed to describe the evaluation of the management of local government information systems in the Ministry of Home Affairs of the Republic of Indonesia.

RESULTS AND DISCUSSION

Evaluation of Regional Government Information System Governance Policy at the Ministry of Home Affairs

In line with the rapid development of technology, information and communication (ICT) at this time, digital transformation in system management is inevitable. Digital transformation refers to the reality of the change process in the form of forms, properties and functions that have an impact including innovation, acceleration, efficiency, accountability and collaboration.

In order to effectively carry out the duties and functions of the Ministry of Home Affairs in fostering and supervising the general implementation of local government as mandated by Law Number 23 of 2014 7 concerning Regional Government, through the Regulation of the Minister of Home Affairs Number 70 of 2019, the Regional Government Information System (SIPD) has been built and developed as an integrated information system that contains the management of regional development information, Regional financial information, and other government information, including the management of information for guidance and supervision of local governments which aims to encourage more efficient, quality, innovative and integrated government implementation.

At the implementation level, SIPD has currently been used by 539 regions for the preparation of the 2021 planning and 541 regions in the preparation of the 2021 APBD. Along with the increasing number of users and modules that are developed, SIPD begins to have many obstacles

and is considered to be not optimal both from the technical and non-technical aspects due to the concept of SIPD management is still conventional so that it has an impact on the difficulty of system development, module improvements, frequent downtime and other technical problems. In addition, the team's collaboration culture has also not been built, so there are often miscommunication and difficulties in controlling monitoring.

Based on Article 391 of Law Number 23 of 2014 concerning Regional Government emphasizes that Regional Governments are obliged to provide Regional Government information, which is managed in a Regional Government information system, the Ministry of Home Affairs issued Regulation of the Minister of Home Affairs Number 70 of 2019 concerning Regional Government Information Systems which contains 3 regional government information, namely regional development information, Regional financial information and other interconnected regional government information to be used in the implementation of local government.

The SIPD policy was born because of the spirit of the Ministry of Home Affairs seeing the condition of the Regional Government at that time where in the management of development planning and regional finance still used applications that were varied and not interconnected and ran individually. Most of the applications developed by the Regional Government are only used as a tool to compile specific reports or on demand, so that there are many practice malls in carrying out the management process both in planning and regional finance. In addition, with the variety of regional planning and financial management systems, there is a waste in the budgeting process and the realization of the APBD in local governments related to the procurement and development of regional financial planning and management information systems.

The urgency of implementing the Regional Government Information System (SIPD) includes:

1. The implementation of local government is increasingly dynamic, so information is needed for the efficiency and effectiveness of the implementation of coaching and supervision (Binwas) of local government implementation.
2. The need for accountability and transparency of government as a form of Open Government Indonesia (OGI).
3. Changing work patterns by utilizing information technology as a form of adaptation in responding to the demands of the industrial revolution 4.0.
4. High expenditure on information technology that is not yet interconnected (system silos). So it is not efficient and effective (total central and regional ICT expenditure in 2014-2016 = 12.7 trillion, Director General of Treasury of the Ministry of Finance).
5. The codification of programs and activities in the regions still has many variations, making it quite difficult in the process of synchronization and harmonization of central and regional development.

Data accuracy and validation

Data adaptation and validation is a crucial stage in the implementation of SIPD, so that the data inputted, processed, and reported is truly accurate, consistent, and in accordance with the

needs of regional planning and reporting. Data adaptation is the process of adjusting and transforming data from various sources (e.g. financial data, demographics, program planning) to suit the format, structure, and needs of SIPD modules. The objectives of data adaptation and validation are:

a. Synchronization of structures, unifying account code formats, program classifications, and activity nomenclature.
b. Integration between systems, ensures that data from Siskeudes, SIPKD, and other systems can be imported without loss.
c. Regional flexibility, adjusting local nomenclature (e.g. code of affairs, work units) to be relevant to the structure of local government.

The results of the interview regarding the accuracy and validation of Regional Government Information System data at the Ministry of Home Affairs are described as follows:

The results of the author's interview with the Head of the Pusdatin of the Secretariat General of the Ministry of Home Affairs as informant 3 stated that:

Data accuracy and validation are the main foundations of successful SIPD implementation. In this context, there are several main things that are of concern and have been systematically pursued, namely:

a. SIPD has been designed with a standardization mechanism for data input in each module, ranging from planning, budgeting, administration, to reporting. This standardization ensures that all incoming data follows the same standard format across local governments, thus minimizing differences in interpretation and avoiding overlapping data.
b. Each data entry in the SIPD automatically goes through a multi-layered validation process, both at the SKPD operator level and at the level of regional financial verifiers. Built-in rules on the system detect anomalies, duplications, or entry errors before the data can be further processed. In addition, locking data after a certain deadline is implemented to maintain integrity and prevent data manipulation after the budgeting or reporting process.
c. All data change activities in SIPD are recorded digitally through the audit trail feature. This facilitates the tracking, monitoring, and tracing process if discrepancies or suspected data manipulation are found. Trail audits are also an effective internal oversight tool to ensure transparency and accountability.
d. To ensure that SIPD data is truly valid, data synchronization is carried out regularly between local governments, central governments, and external supervisory institutions such as BPK and BPKP. This synchronization is very important to create a single source of data that can be accounted for (single source of truth) in local governance.

The results of the author's interview with the Head of the Sub directorate of Technical Support for Regional Financial Implementation and Accountability of the Directorate General of Regional Financial Development as informant 9, stated that:

The accuracy and validation of data in SIPD is a top priority in transparent and accountable regional financial governance. In the implementation and accountability of regional finances, SIPD acts as a system that connects the entire process from planning, budgeting, implementation, to

reporting, so that the data produced must be reliable, accurate, and in accordance with applicable regulations.

a. SIPD implements data validation in layers and tiers. Every data input by the regional apparatus must be verified at the operator level, then re-verified by the financial administration official, and finally an automatic system check is carried out by the SIPD. With this stage, the possibility of errors, mismatches, or duplicate data can be significantly minimized.
b. SIPD uses uniform national data and coding standards across regions. This ensures that the data that enters the system is consistent, comparable, and easily integrated between regions and with the central government system. This standardization is very important to ensure the accuracy of data and for the purposes of analysis and formulation of national policies.
c. SIPD is equipped with automatic detection features for data anomalies, duplication, and inconsistencies between plans and budget realizations. The system will alert users if potential errors are found before the data is locked and sent to the next stage.
d. The entire process of data input, change, and validation is recorded in a digitally recorded trail audit. Thus, any changes can be easily traced if discrepancies are found during the internal and external audit process.

Based on the results of observations regarding the standardization of input formats and data integration processes in SIPD, it has contributed significantly to improving data accuracy in local governments. Each data entry in the SIPD must follow the provisions of the standard format that apply nationally, so as to minimize the occurrence of differences in interpretation and inconsistency of data between regional apparatus.

a. The data that enters the SIPD goes through a series of layered validations, both at the level of regional device operators, internal verifiers, and automatic validation systems on the SIPD platform itself. This mechanism is effective in detecting entry errors, duplications, or mismatches between planning, budgeting, and realization data.
b. The SIPD system provides a digital trail audit for every data input, change, and validation process. All activities are recorded systematically so that it is easier to trace if anomalies, discrepancies, or suspected data manipulation are found. This feature also increases transparency and accountability in regional financial data management.
c. There is an improvement in data consistency between planning, budgeting, and reporting documents, thanks to the integration of modules in SIPD. The data synchronization process between local governments, central governments, and supervisory institutions (e.g. BPK, BPKP) also runs more efficiently and accurately.
d. Routine monitoring conducted in a number of local governments shows that the error rate and data difference between financial statements tend to decrease, with an average of below 2% for the past few years. This indicates the effectiveness of system validation and the improvement of regional human resource competence in data management.

Although positive achievements have been achieved, there are still challenges in the form of: Limited human resources who master SIPD deeply in several regions, especially in the 3T area. Limited information technology infrastructure that causes obstacles during the data input and

validation process. Differences in understanding of data input procedures between regional apparatus sometimes cause inconsistencies in the early stages.

Based on the description above, it can be concluded that the accuracy and validation of SIPD data has significantly improved thanks to standardization, multi-layered validation, and a robust trail audit system. However, strengthening human resources and infrastructure is still needed to ensure that data quality remains high and equitable across all local governments in Indonesia.

Ease of use

Usability is a crucial aspect in the adoption and effectiveness of SIPD. If the system's interface and workflow are intuitive, then users, especially planners and budget managers, can work faster, make fewer mistakes, and be more motivated to maintain data quality.

Based on the ISO 9241-11 standard and Nielsen principles, the ease of use of SIPD can be measured through the following five dimensions:

Table 1. Dimensions of Ease of Use of SIPD

Dimension	Definition
Learnability	How quickly new users can understand and operate basic SIPD modules.
Efficiency	The speed and productivity of the user after getting used to it, for example the time to prepare the RKPD via SIPD.
Memorability	Ease of remembering system flows and functions if users have not accessed SIPD within a certain time.
Error Rate	The frequency and severity of input or navigation errors, as well as their ease of recovery.
Satisfaction	User satisfaction levels with the interface, menu layout, and system response.

Source: ISO 9241-11 and Nielsen principles

The results of the interview regarding the ease of use of the Local Government Information System at the Ministry of Home Affairs are described as follows:

The results of the author's interview with the Head of the Regional Revenue and Financial Management Agency of Papua Mountainous Province as informant 13 stated that: The SIPD interface is quite clean and uses easy-to-understand icons. Key menus such as e-Planning, e-Budgeting, and e-Reporting are logically arranged, allowing our unit to navigate the modules without having to consult the technical team repeatedly. The tooltips and short guides in each form are helpful. When we encounter problems, we can immediately see the instructions without leaving the work page. However, in the implementation there is still a need for improvements regarding the offline-sync feature is still highly anticipated; Some work units in our district are experiencing difficulties when the signal is low. It would be better if users could set the widget as needed, for example displaying a summary of regional tax realization directly. The regional facilitator team was very helpful, but the frequency of visits needed to be increased during the first quarter of implementation.

The results of the author's interview with the Head of BPKAD Berau Regency as informant 15, stated that: The main menu of SIPD is arranged hierarchically and logically. We can switch between planning, budgeting, and reporting modules with minimal search time. The auto-fill feature based on the previous year's data is helpful. Simply call the historical data reference, and

then adjust the latest realization value. The step-by-step guide (wizard) on each module guides new users to complete key tasks, such as performance indicator inputs and budget allocation. The challenges that are still faced in the field are: the offline synchronization feature is an urgent need. The basic reporting module is sufficient, but the ability to create custom reports based on local variables will be even more useful. The regional assistance team is currently focusing on the sub-district capital; It would be more efficient if there was a 24/7 virtual helpdesk for urgent questions.

The results of the author's interview with the Head of BPKAD Padang City as informant 16, stated that: The layout of the SIPD menu is very user-friendly. The planning, budgeting, and reporting menus are organized in a consistent structure, minimizing feature search time. The previous year's data auto-fill feature and standard budget templates make it easy for our staff to make initial input, especially for routine programs. Significant ease of use through intuitive navigation, historical data auto-fill, and interactive guides. With improved custom reporting features, planned module scheduling, and offline synchronization support, SIPD will be more optimal in supporting the planning and budgeting process in all Padang City OPDs.

Based on the results of observations regarding the ease of use of SIPD, the level of ease of use of SIPD can be maintained and even improved.

a. Learnability, most users (88%) were able to complete basic tasks without written documentation after 1 hour of onboarding. There are still 12% who need more detailed guidance for advanced features (e.g. performance indicator settings).
b. Efficiency, historical data auto-fill features and templates speed up input by up to 30%, consistently confirmed by informants. Some users suggest an "Undo" button to correct erroneous entries without having to start over.
c. Error rate and recovery, the majority of errors (≥ 70%) occur due to missing the mandatory field of performance indicators or funding sources. The in-app validation mechanism (red alert) helps users fix immediately, so that the recovery rate reaches 95%.
d. Satisfied, 92% rated the interface as "clean" and "not cluttered." 80% found in-app documentation (tooltips, wizards) helpful; The rest want a short tutorial video.

The challenges faced in the field are: Internet connection at the sub-district office still affects the loading time; 20% of reports are hampered during peak hours. The lack of offline features is considered a major bottleneck, especially for users in areas with weak signals.

Based on the description above, it can be concluded that the ease of use of SIPD with an intuitive interface, reliable validation mechanisms, and training support and contextual documentation, SIPD has achieved a good level of ease of use. To increase ease of use, it is necessary to add offline features, customization capabilities, and undo/redo functions that will further improve usability, strengthen adoption, and encourage productivity of regional apparatus.

Adequacy

The Local Government Information System (SIPD) developed by the Ministry of Home Affairs aims to increase efficiency, transparency, and accountability in the management of local government in Indonesia. The adequacy of SIPD can be judged from several key factors related to

functionality, coverage, ease of access, and support for better data-driven decision-making.

One aspect of the adequacy of SIPD is its ability to provide complete and integrated data. SIPD enables the collection and management of various types of data, including budget data, development planning, activity execution, and evaluation. This system combines various previously dispersed data sources, making it easier to make decisions at the local and central government levels. SIPD provides very useful information in regional financial planning and management, as well as monitoring ongoing development projects. The existence of accurate data that can be accessed directly by local governments and the community makes SIPD quite adequate in terms of providing transparent and accountable information.

SIPD helps in the management of the regional budget more efficiently, transparently, and accountably. With this system, budget allocation can be monitored more clearly, and there is an integration between planning, budgeting, implementation, and financial reporting. This answers the need to increase efficiency in regional budget management, as well as facilitate supervision both by the central government and by the community. SIPD allows for real-time monitoring of budget use and program implementation. Thus, the adequacy of this system can be seen from the extent to which it supports faster and more accurate reporting to supervisory agencies, as well as allows for better evaluation of the use of public funds.

The adequacy of SIPD is also measured by its ability to support data-driven decision-making at the regional level. By providing well-integrated and structured data, SIPD enables local governments to make more targeted decisions, both in development planning, budget allocation, and regional policy determination. SIPD provides tools for analysis and reporting that can be used by local governments to evaluate development performance and policy effectiveness. This feature provides the sufficiency of the system in presenting information that is not only descriptive, but also analytical, to support better decisions.

SIPD allows for more integrated development planning, where all planned development activities can be monitored and ensured in accordance with national and regional priorities. The existence of SIPD makes it easier to prepare regional development plans (RPJMD and RKPD) based on valid and measurable data.

This system provides a clearer picture of the budget allocation for each sector, as well as the progress of the ongoing projects. This supports the adequacy of the system in terms of managing development programs that are more planned, efficient, and more targeted.

To achieve optimal adequacy, SIPD needs to provide an interface that is easy to understand and use by various groups, including local government officials who are not familiar with digital systems. The existence of a simple and intuitive interface will go a long way in increasing the adequacy of this system in its use. The adequacy of SIPD is also reflected in the ease of access to the data available in the system. With a system that can be accessed in real-time by local governments, supervisory agencies, and the public, SIPD provides better transparency and accelerates the decision-making process.

Each region has different characteristics and needs in terms of development planning and management. Therefore, the adequacy of SIPD can be assessed from the extent to which this

system is flexible and can be adjusted to the specific needs of each region, both in terms of budget allocation, development priorities, and regional resource management. SIPD should be flexible enough to adapt to specific regional policies, so that regions can leverage the system's features to support their development plans without difficulty. The formulation of data-based policies that are more relevant and in accordance with regional characteristics is one of the measures of the adequacy of this system.

One of the main goals of SIPD is to increase the transparency and accountability of local governments in budget and development management. SIPD provides sufficient tools to track the use of funds, evaluate projects, and ensure that all activities are running according to the plan that has been prepared. SIPD is also quite adequate in supporting supervisory agencies to monitor budget use and sustainability of development projects, as well as conduct periodic evaluations to ensure that development goals are achieved as expected.

Adequacy of human resources

The success of SIPD implementation is highly dependent on the availability and quality of human resources who manage applications ranging from development, technical maintenance, to end users in OPDs. Human resource adequacy includes quantity (number of personnel) and capability (technical and functional competence).

Adequacy of the responsible structure/work unit

In its implementation, SIPD requires clear and adequate support for organizational structures or work units as the person in charge of implementation at the central and regional levels. At the central level, the Ministry of Home Affairs has established several strategic work units, such as:

a. The Data and Information Center (Pusdatin) of the Secretariat General of the Ministry of Home Affairs which acts as the main coordinator for the management, development, and integration of the SIPD system.
b. The Directorate General of Regional Financial Development and the Directorate General of Regional Development as technical units responsible for financial aspects, planning, implementation, and evaluation of regional governance through SIPD.
c. The Planning Bureau, the Organization Bureau, and other supporting units that play a role in cross-field coordination, policy adjustment, and human resource and information technology management.

Adequacy of management and development budget

The budget is the backbone for the operational continuity, maintenance, and development of the Regional Government Information System (SIPD). Budget adequacy includes allocations at the central level (Ministry of Home Affairs) and regional contributions (provinces/districts/cities), which must be adequate to cover the costs of licensing, infrastructure, human resources, training, and innovation.

Alignment

The Leveling of the Regional Government Information System (SIPD) is a process that aims to ensure that all regions, both those with advanced technological infrastructure and those that are less developed, can make equal and optimal use of the Regional Government Information System (SIPD). The Ministry of Home Affairs has developed the SIPD to improve efficiency, transparency, and accountability in local government management. However, achieving SIPD equalization in all regions of Indonesia requires great efforts so that this technology can be accessed and utilized in an equitable manner in all regions.

Many areas, especially in remote areas or with limited access to technology, face barriers in accessing and utilizing SIPD. The limitations of the technological infrastructure, such as unstable internet connections and outdated hardware, are a major barrier to the flattening of these systems. To achieve leveling, the central government needs to work with local governments to improve technology infrastructure, including improving internet connectivity, providing adequate computer devices, and building secure and centralized data storage facilities. In addition, efforts are needed to increase access to technology in areas that are not well reached.

One of the biggest obstacles in the leveling of SIPD is the unpreparedness of human resources (HR) in certain regions. Local governments with lower levels of digital literacy will find it difficult to operate SIPD, even if the infrastructure and systems are adequate. To evenly distribute the use of SIPD, intensive and continuous training for local government officials is needed. This training program should include technical skills in the use of SIPD, as well as an understanding of the importance of digital systems in supporting transparency, accountability, and efficiency of regional financial management. Training must be tailored to the skill level and needs of the region, including for more developed and more remote areas.

To achieve effective leveling, policies that support the implementation of SIPD as a whole are needed. Some regions have difficulty integrating this system into their policies due to differences in priorities or limited resources. The central government must ensure that policies and regulations related to the implementation of SIPD are implemented consistently across the region. This includes providing adequate budgets for infrastructure procurement and HR training in areas in need, as well as creating policies that support the equitable spread of information technology. This policy support should include adjustments to the system so that it can be adapted to the specific needs of the region.

Uneven supervision at the regional level can lead to ineffectiveness in the implementation of SIPD. Some regions do not have adequate oversight capacity to monitor the use of SIPD, which hinders transparency and accountability. To level out supervision, there needs to be a mechanism that allows for uniform and effective surveillance across regions. The central government can provide training and tools for supervision according to the level of capability of each region. Evaluations of the use of SIPD should also be conducted on a regular basis to ensure that each region can make good use of the system and provide useful feedback for improvement.

Equitable implementation of SIPD requires support from various stakeholders at the regional level, including local governments, educational institutions, and the community. Lack of

collaboration between stakeholders can hinder the leveling of the use of SIPD. Increasing collaboration between central and local governments, as well as between local governments and educational institutions and the private sector, is an important effort to support the flattening of SIPD. This can include socialization, counseling, and workshops involving various parties to increase understanding and acceptance of SIPD in less developed areas.

Responsiveness

Responsiveness in the context of the Regional Government Information System (SIPD) refers to the system's ability to respond to user needs quickly and effectively, both in terms of data collection, information processing, and the presentation of relevant results. The Ministry of Home Affairs (Kemendagri), through SIPD, strives to create a system that can respond quickly to policy changes, dynamics in the regions, and the needs of local governments in managing finances and development planning.

One of the important elements in the responsiveness of a SIPD is its ability to respond to changes in policies or regulations issued by the central or local government. SIPD should be flexible enough to accommodate new policies and update systems to stay relevant to those policies. If the central government issues policies related to budget allocation for a particular program, the SIPD must be able to update budget data quickly and ensure that all local agencies comply with the new policy. A responsive system ensures that policy changes can be implemented immediately without waiting for a long time.

SIPD is designed to facilitate the collection of relevant data from various local government agencies and process it centrally. The speed of collecting and processing data allows local governments to immediately obtain the information needed in planning, budgeting, and monitoring development. When there is an urgent need, such as reporting on budget usage or the status of a development project, SIPD must be able to generate data quickly, accurately, and relevantly, enabling decision-makers at the regional level to take immediate necessary action.

The responsiveness of SIPD can also be seen from its ability to present reports in real-time. With an integrated system, the collected data can be directly analyzed and presented in the form of reports that are easy to understand by various stakeholders, including local governments, supervisory agencies, and the community. If there is an urgent request to report on the progress of the implementation of a development program or budget allocation, the SIPD must be able to produce a prompt and accurate report. This is very important to ensure transparency and accountability in regional financial management.

SIPD should be designed with a responsive user interface that is easy to use by various parties, including local government employees with varying levels of technological skills. The responsive system allows users to quickly get the information they need without technical barriers. SIPD users who need quick access to budget data or project status should be able to easily access information through an intuitive interface. This responsiveness refers not only to the speed of the system, but also to the ease of navigation and the presentation of clear information.

The responsiveness of SIPD can also be seen from its ability to support fast and appropriate

decision-making at the local government level. When a situation requires an urgent decision, such as budget adjustments or development priorities, the SIPD must provide complete and up-to-date data to support the decision. For example, in emergency or crisis situations, such as natural disasters, local governments need quick information regarding the allocation of aid funds and the status of ongoing projects. SIPD must be able to present relevant information quickly to ensure informed decision-making.

SIPD must have the ability to respond quickly to technical issues that arise, whether they are related to infrastructure, hardware, or errors in data processing. A responsive system allows detected issues to be fixed immediately to ensure smooth operation. If there is a technical issue in any of the areas that hinders access to data or reports, the SIPD technical support team should be able to respond immediately and resolve the issue, so that regional management and planning activities are not disrupted.

Accuracy

Accuracy in the context of the Regional Government Information System (SIPD) refers to the ability of the system to produce data and information that is accurate, relevant, and in accordance with the needs of local government management. System accuracy is very important in supporting planning, budgeting, implementation, and policy supervision at the regional level. The Ministry of Home Affairs (MoH) through SIPD strives to ensure that this system can provide the right information at the right time, to support better and more data-driven decision-making.

One of the key aspects of the accuracy of SIPD is the system's ability to collect precise and accurate data from various sources in local governments. SIPD must be able to capture relevant information about budgets, development planning, project implementation, and policy evaluations carried out by various agencies at the regional level. In order for the data collected to be precise and accurate, SIPD must be well integrated into the administrative and planning processes in each local government agency or agency. Incomplete or inaccurate data will hinder the effectiveness of local government management.

The accuracy of SIPD is also seen in its ability to process data appropriately and present it in a format that is easy to understand and relevant to decision-makers. Proper data processing allows the information to be presented according to the needs of users, such as local governments, supervisory agencies, and the community. The processing of data in SIPD must be carried out systematically with algorithms that can identify and correct errors or inconsistencies in the data. In addition, the use of the right technology to process big data is also very important to ensure the accuracy of the results.

One of the key features of SIPD is its ability to present timely and accurate financial reports and development planning. The reports produced must be able to reflect the financial reality and status of the development project with a high level of accuracy. To achieve this accuracy, SIPD must be able to integrate data from a variety of related sources, including budgets, expenditures, and ongoing projects, as well as ensure that the reports produced are in accordance with established standards. Inappropriate reporting can lead to wrong decision-making, so there needs to be a data

validation mechanism and regular audits.

SIPD is designed to support data-driven decision-making, enabling local governments to make informed and relevant decisions based on accurate information. Accuracy in this case includes the presentation of data that can be accounted for for planning, budgeting, and supervision. Local governments need to ensure that they have access to the right data when making important decisions, such as budget adjustments or development priorities. A system that does not present the right data can lead to ineffective decisions, so there needs to be a mechanism to ensure that the data used in decision-making is completely accurate.

SIPD assists local governments in monitoring and evaluating the progress of development projects with high accuracy. This system allows oversight of budget implementation and project progress to ensure that things are going according to plan. SIPD must be able to accurately monitor the status of each project, including budget realization and achievement of results. The use of proper indicators to measure project performance is critical to ensure that the evaluation conducted provides a correct picture of the project's progress and effectiveness.

The accuracy of SIPD is also reflected in its ability to prepare budgets and regional development plans that are right on target, based on accurate data and proper analysis. In this case, SIPD serves as a tool that allows local governments to allocate budgets more efficiently and in accordance with development priorities. In order for budget planning to be precise, SIPD must be able to provide accurate data on regional development needs and priorities, as well as allow simulation of budget allocation based on different scenarios. Inappropriate budget preparation or based on incorrect data will hinder the achievement of regional development goals.

The accuracy of SIPD can also be measured by its ability to respond quickly and appropriately to changes in the situation and regional needs. The system must be flexible enough to accommodate changes in policies, regulations, or emergency situations that affect budget management and development. The system must have the ability to update data and reports quickly, according to changes in policies or conditions in the field. In addition, SIPD must be able to integrate new data emerging from various sources to provide a more accurate picture of the current situation.

Governance Model of Local Government Information Systems at the Ministry of Home Affairs

This study formulates a model for strengthening SIPD governance in the future. This model is generated based on the theory used and empirical findings in the field. The SIPD policy was born to realize the alignment of national development programs based on the digital transformation policy (government electronification) and the One Data Indonesia policy

The SIPD governance model is expected to be a solution in transforming SIPD into a reliable system with better performance in order to increase the value and trust of local governments so that accountable, effective and efficient local government information services are realized.

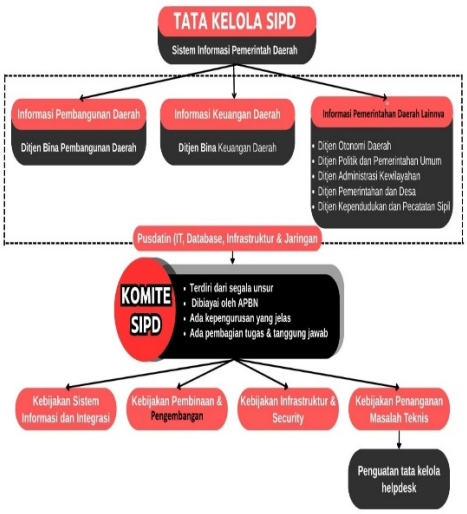

Figure 1. SIPD Governance Model
Source: processed by researcher, 2025

Based on the image above, it can be explained that SIPD has 3 (three) main functions, namely:

1. Regional Development Function

Regional Development Information is used for data and information management, preparation, monitoring and evaluation of regional development plan documents. In SIPD, the business process of regional development planning produces regional development planning products and information which then produces development analysis and profiles. In regional development planning information, there are regional development planning conditions, regional resource potential, regional economy and finance, demographics, community welfare aspects, regional competitiveness aspects, and public service aspects. While the products are RPJPD, RPTD, RKPD, PRJMD, RSTRA PD. The Ministry of Home Affairs stakeholders who have roles and responsibilities for regional development planning are the Directorate General of Regional Development.

2. Regional Finance Function

Regional Financial Information is a process that documents, administers, and processes regional financial management data and other related data into information that is presented to the community and as decision-making material in the context of planning, implementing, and reporting local government accountability. The processes contained in Regional Financial Information include Regional Financial Implementation and Administration, Regional Accounting and Financial Reporting Information, Regional Plans, Regional Financial Implementation Accountability Information. The Ministry of Home Affairs stakeholders who have roles and responsibilities for regional development planning are the Directorate General of Regional Financial Development.

3. Local Government Information Function

This function consists of several functions, namely:

Other Local Government Information is something that documents, administers, and

processes data on the management of other local government activities and other related data into information that is presented to the community and as decision-making material in the context of planning, implementing, and reporting local government accountability. Other Local Government Information includes the Preparation of LPPD Information, the Preparation of PPD Evaluations, and the Preparation of Regional Regulations. Stakeholders of the Ministry of Home Affairs who have a role in other local government information include: the Directorate General of Regional Autonomy, the Directorate General of Politics and General Government, the Directorate General of Regional Administration Development, the Directorate General of Village Government and the Directorate General of Population and Civil Registration.

CONCLUSION

SIPD governance has demonstrated strong performance in effectiveness, efficiency, responsiveness, and data accuracy; however, several challenges remain, including suboptimal functioning of administration and accounting modules, limited interoperability hindering data synchronization, uneven adoption across local governments, and inconsistent data quality for evaluation and decision-making. The absence of a dedicated SIPD steering committee and cross-echelon forums has resulted in fragmented strategic decision-making and delayed resolution of integration and development issues, while inadequate helpdesk support and the lack of an integrated ticketing system have further disrupted local government operations. To address these issues, the proposed SIPD Governance Model recommends forming a SIPD Committee—chaired by the Minister of Home Affairs and comprising leaders from all relevant work units—and establishing a dedicated SIPD Helpdesk under its structure. For future research, it is suggested to investigate the impact of committee-led governance and integrated support services on the long-term effectiveness and scalability of SIPD implementation across diverse regional contexts.

REFERENCES

Ahmad, J., Ekayanti, A., Nonci, N., & Ramadhan, M. R. (2020). Government Agility and Management Information Systems: Study of Regional Government Financial Reports. *The Journal of Asian Finance, Economics and Business*, *7*(10). https://doi.org/10.13106/jafeb.2020.vol7.n10.315

Dharmawati, T., Hasbudin, H., & Dewa, M. J. (2021). Evaluation the implementation of the regional government accounting information system. *JPPI (Jurnal Penelitian Pendidikan Indonesia)*, *7*(4). https://doi.org/10.29210/020211227

Hilabi, S. S., Gaol, F. L., & Matsuo, T. (2021). Enterprise architecture design for regional parliament information systems using the standard government and architecture application (SAGA) framework. *ICIC Express Letters*, *15*(2). https://doi.org/10.24507/icicel.15.02.173

John Michael, I. (2019). *Procurement practices and service delivery in local governments*. Kampala International University.

Kaganova, O., & Telgarsky, J. (2018). Management of capital assets by local governments: An assessment and benchmarking survey. *International Journal of Strategic Property Management*, *22*(2). https://doi.org/10.3846/ijspm.2018.445

Mallisetty, M. S. (2023). *Digital transformation: advancements in business*. Book Saga Publications.
Mansoor, M. (2021). Citizens' trust in government as a function of good governance and government agency's provision of quality information on social media during COVID-19. *Government Information Quarterly*, *38*(4), 101597.
Muda, I., Wardani, D. Y., Erlina, Maksum, A., Lubis, A. F., Bukit, R., & Abubakar, E. (2017). The influence of human resources competency and the use of information technology on the quality of local government financial report with regional accounting system as an intervening. *Journal of Theoretical and Applied Information Technology*, *95*(20).
Nurindahsari, R., Akuntansi, J., & Bandung, P. N. (2022). The Influence of Implementation E-Government Information System on Transparency and Accountability of Regional Financial Management (Case Study on Bandung City Government) Rendra Trisyanto. *Indonesian Accounting Research Journal*, *2*(3).
Putra, F. D., & Simangunsong, F. (2022). Implementation of the Minister of Home Affairs Regulation Number 70 of 2019 regarding the Regional Government Information System in Pangkalpinang City, Bangka Belitung Province. *Journal of Research in Social Science and Humanities*, *2*(2). https://doi.org/10.47679/jrssh.v2i2.28
Razak, M. I. M., Hasan, A., & Azmi, F. R. (2021). Impact of information technology on government bureaucracy and public service efficiency. *Journal of Public Administration*, *15*(2), 44–58.
Saarikko, T., Westergren, U. H., & Blomquist, T. (2020). Digital transformation: Five recommendations for the digitally conscious firm. *Business Horizons*, *63*(6), 825–839.
Salindeho, A. (2021). The Role of Regional Government Information System (SIPD) on the Sub-District of Aertembaga's Financial Accountability. *Indonesian Journal of Multidisciplinary Science*, *1*(3). https://doi.org/10.55324/ijoms.v1i3.26
Wilson, C. (2020). The socialization of civic participation norms in government?: Assessing the effect of the Open Government Partnership on countries' e-participation. *Government Information Quarterly*, *37*(4). https://doi.org/10.1016/j.giq.2020.101476
Wurangian, A., Wawointana, T., & Mamonto, F. H. (2024). Financial Administration of Information Systems Regional Government at The Regional Secretariat of Minahasa Regency. *Technium Social Sciences Journal*, *53*. https://doi.org/10.47577/tssj.v53i1.10351
Zhang, X., Xu, Y. Y., & Ma, L. (2023). Information technology investment and digital transformation: the roles of digital transformation strategy and top management. *Business Process Management Journal*, *29*(2). https://doi.org/10.1108/BPMJ-06-2022-0254