

## **IMPLEMENTATION AND EFFECTIVENESS OF LOCAL GOVERNMENT INFORMATION SYSTEMS (SIPD) IN INDONESIA: A LITERATURE STUDY**

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### **ABSTRACT**

This research seeks to analyze the implementation and effectiveness of the Local Government Information System (SIPD) in local financial management in Indonesia, using a literature study methodology. The implementation of SIPD is expected to improve transparency, accountability, and efficiency in local financial management. A comprehensive literature study was conducted, covering various scientific sources such as journals, articles, and research reports. The research findings show that the effectiveness of SIPD in improving local financial management depends on the readiness of technological infrastructure, human resource capabilities, and the support and dedication of local government administration. The main barriers encountered include technological limitations in system integration, users' reluctance to change, and the need for continuous training for government staff. This study suggests that to achieve maximum efficiency, it is necessary to invest more in technological infrastructure, implement sustainable HR training programs, and establish policies that encourage the widespread adoption and use of SIPD in various locations. In addition, strategic solutions are suggested to overcome the identified barriers, with the aim of increasing the effectiveness of SIPD implementation and making a substantial contribution to improving local financial management.

**Keywords:** Accountability, Efficiency, Local Financial Management, Local Government Information System (SIPD), Transparency.

### **INTRODUCTION**

With the advancement of information and communication technology, the government is actively improving and adjusting its approach to digital technology transformation. Law Number 23 of 2014 article 391 where the Regional Government is obliged to provide Regional Government Information, which is managed in a Regional Government Information System. The use of SIPD is emphasized through Permendagri Number 70 of 2019 concerning Regional Government Information Systems. And after the issuance of Permendagri No. 77 of 2020 which automatically replaces the previous Permendagri, namely Permendagri NO. 13 of 2006 concerning regional financial management guidelines, then the local government no longer uses the SIMDA application, but for now uses the SIPD (Sistem Informasi Pemerintah Daerah) application. The Local Government Information System (SIPD) is a comprehensive information system that covers

local development planning, local funding, and local government guidance and supervision. The system is specifically designed to be adaptable, responsive, dynamic, inventive and accountable. SIPD functions as a data collector by utilizing information technology to help design, evaluate, and implement regional development programs and activities that are rational, effective, and efficient. This web application is designed to improve and streamline the process of monitoring and evaluating public services provided by local governments. In addition, SIPD also aims to encourage transparent and responsible regional financial management in order to realize good governance. The Local Government Information System (SIPD) was implemented with full support from local governments to improve the efficiency of the planning and budgeting process. However, although SIPD has been widely implemented in various regions, its effectiveness is still debatable. Some regions have seen improvements in accountability, transparency, and efficiency following the implementation of SIPD. However, other regions face various challenges that hinder the optimization of this system. These include factors such as technological infrastructure readiness, human resource skills, and support and commitment from local leaders. The purpose of this study is to thoroughly analyze the implementation and success of the Local Government Information System (SIPD) in local financial management in Indonesia, using a literature review as the methodology. The purpose of this literature review is to assess the level of SIPD implementation in different locations, evaluate its impact on transparency, accountability, and efficiency, and identify the elements that contribute to the success of SIPD implementation. The study also aimed to identify difficulties encountered in SIPD implementation and provide suggestions to overcome these obstacles. This research specifically examines three main issues: (1) the process of SIPD implementation, including the stages and strategies used by local governments, (2) the effectiveness of SIPD in improving transparency and accountability of local financial management, and (3) the challenges faced in the implementation and operationalization of SIPD. Therefore, the findings of this study are expected to improve the formulation of local financial management policies and practices that lead to more effective and efficient SIPD implementation and improved good governance.

## **THEORETICAL FOUNDATION**

### **Van Meter and Van Horn Model of Public Policy Implementation Theory**

(Nasution & M.Si, 2021) A Model of the Policy Implementation (1975) is a model of Van Meter and Van Horn's policy implementation approach. Policy implementation is conceptually carried out in the hope of getting better performance from the policies implemented and is related to various variables (Agostino, 2010). This model explains that the implementation of policy performance is influenced by 6 related variables, namely: Policy standards and objectives / policy measures and objectives, Resources, Characteristics of the implementing organization, Inter-organizational communication, Disposition or attitude of the implementers, Social, political and economic environment.

### **Implementation**

In the book *Public Policy Theory and Process* written by Budi Winarno (2007: 145) Ripley and Frangklin in *Bureucracy and Policy Implementation* argue that "Implementation

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is what happens after a law is enacted that gives program authority, policy, benefit, or a type of real output. The term implementation refers to a number of activities that follow a statement of intent about program objectives and desired outcomes by government officials. Implementation includes a series of actions (without action) by many actors that are intended to make the program work." (Nasution & M.Si, 2021).

### **Effectiveness**

Organizational effectiveness in the context of the public sector is defined as the ability of an organization to achieve its goals and objectives through optimal utilization of available resources. This article examines how learning and unlearning affect organizational effectiveness. (Ricciardi, F. Et al., 2021).

### **Local Government Information System (SIPD)**

SIPD is a system that documents, administers, and processes regional development data into information that is presented to the public and decision-making materials in the context of planning, implementing, evaluating local government performance. After the issuance of Permendagri Number 70 of 2019 and Permendagri Number 90 of 2019, all regions in Indonesia must implement a technology-based planning and budgeting system, in this case the SIPD application. Permendagri Number 70 of 2019 concerning Regional Government Information Systems (SIPD) is the management of regional development information, regional financial information, and other interconnected Regional Government information to be utilized in the implementation of regional development. and Permendagri Number 70 of 2019 becomes the implementative basis for the synchronization of development planning and regional development budgeting. For its implementation, a web-based application called the SIPD application was created. (Gitarisdiana et al., 2024). According to (Nasution & M.Si, 2021) The implementation of a national integrated SPBE-based government is very important to be realized towards Good Governance and produce one accurate and integrated Indonesian data from the regions to the center. For this reason, Permendagri Number 70 of 2019 was issued which regulates the types of SIPD that can be developed by the Regional Government into several groups as follows: Regional Development Information, The local government information system is able to manage data and information related to regional development planning by involving various related elements. SIPD is also able to facilitate the preparation of RPJPD, RPJMD, RKPD, RENSTRA PD, and RENJA PD so that analysis and profiles of the implementation of regional development are easily obtained, and are able to become the basis for updating data and information on regional development planning. Regional geography, demography, regional resource potential, regional economy and finance, community welfare, public services, and regional competitiveness are information contained in regional development planning. Regional Financial Information, The local government information system is able to manage local financial data through various related elements more effectively and efficiently while still paying attention to the principles of accountability and transparency. The regional financial management process includes: Regional Budget Planning, Implementation and Administration of Regional Finance, Regional Financial Accounting and

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Reporting, Accountability for Regional Financial Implementation, Regional Property Accountability, Other Regional Financial Information.

The management of regional financial data is very important, especially in preventing the practice of abuse of authority, especially regional finances. Coding and regional budget items will be mapped in detail in the planning process, and implemented appropriately, resulting in more accurate and faster reporting. National coding of activities is also very helpful in integrating regional financial data with the central government information system, especially in submitting accountability reports. Other Local Government Information, SIPD is able to provide other general information related to governance. Such general information can be in the form of a one-year Report on the Implementation of Local Government (LPPD), PERDA, and other general information managed by various related elements. Research studies on the implementation and effectiveness of Local Government Information Systems in regional financial management have been carried out previously by several researchers including the following:

**Table 1. Article Review**

No.	Title	Author	Year	Findings	Results Relevant to Research
1	Implementasi of Local Government Information Systems on the Regional Financial Administration Process at Beppeda Mataram City	Dimas Aldy Wibowo, Elin Erlina Sasanti, Nurabiah	2023	The application of SIPD using the Technology Acceptance Model (TAM) is good, although the use of SIPD from the <b>Perceived Usefulness aspect</b> has not maximally improved the performance and productivity of organizational operations; the <b>Perceived Ease of Use</b> aspect is good because SIPD has a language and menus that can be understood besides that the sequence in carrying out the administration process becomes more structured; <b>Attitude Towards Behavior</b> aspect shows that the previous system, namely SIMDA, is more comfortable to use because SIPD still experiences error problems but has advantages such as being	Factors that influence the success of SIPD Implementation: The existence of SIPD is quite useful in assisting financial administration. The language and menus in SIPD are understandable. The sequence of regional financial administration processes has structured work steps. SIPD is able to reduce the obstacles faced by users. Users continue to try to adapt so that they can utilize SIPD optimally. Barriers: Implementation still requires adaptation and learning time to better understand the application of SIPD. SIPD still often experiences error problems Menus that cannot cover all

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			<p>accessible from various user needs electronic devices at any time without time limits; Behavior <b>Intention</b> aspect where the application of SIPD is supported and will continue to be used in conducting financial information, especially financial administration; <b>Behavior</b> aspect by employees feels quite satisfied in using SIPD compared to the previous system (SIMDA), although employees still need time to adapt in order to use SIPD optimally.</p>	<p>The flow of the financial administration process is longer when compared to the previous system.</p>
2	<p>Implementasi of the Local Government Information System (SIPD) in Regional Financial Management at the Regional Financial and Asset Management Agency (BPKAD) of Semarang City, Central Java Province.</p>	<p>Tumija, 2023 Asep Hendra and Marja Sinurat</p>	<p>The implementation of SIPD in local financial management has been implemented, but on the resource dimension, especially on the indicator of Accounting and Reporting Information System (Aklap) facilities, the menu used already exists but cannot be accessed. The barriers to the implementation of SIPD in local financial management in Semarang City include a) SIPD training from the central government has not been optimal; b) the available server is not strong enough; and c) technical financial management related to Aklap Budget Realization report, the menu is not yet available, so that the report</p>	<p>Stages: Communication; The communication is done by holding socialization and coordination meetings as well as holding SIPD application workshops. BPKAD consistently conducts training with the Ministry of Home Affairs in Jakarta every time it encounters problems when inputting data there is a system error or there are features that cannot be accessed even though the menu exists. Resources; Adequate number of human resources in handling SIPD. Available facilities and budget. Disposition and Attitude of Implementers;</p>

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is not balanced and the LS Bureaucratic appointments General Treasury return is and incentives are in not appropriate. The accordance with applicable strategy in overcoming regulations obstacles uses the SO (Strenght-Opportunity), SC (Strenght-Culture) and AgC (Agility-Culture) strategies. There is a standard operating procedure (SOP).

### Barriers:

- SIPD apparatus/operators are still not familiar with operating the features because training and socialization of SIPD to local governments is still lacking.
- When inputting data, there is often an error because the server is not strong when inputting data at the same time.
- Regarding the Accounting and Reporting (Aklap) of the Budget Realization report, the menu already exists, but it is not yet balanced, because there is no feature yet.

### Strategy:

- SO strategy is to utilize strengths (sufficient budget) to get opportunities (training).
  - The SC (Strenght-Culture) strategy uses strength (mission) to utilize culture (cooperation).
  - AgC (Agility-Culture) strategy, using intelligence by utilizing culture (discipline, professionalism and responsibility).
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3	Application of the SIPD Application (Regional Government Information System) in the Implementati on of Financial Reports at the UPTD of Traditional Medicine Health	Putu Pradiva Putra Salain and Ida Komang Jovan Wedana	2023	The results of the activities that have been carried out show that the UPTD Health Traditional Medicine uses this application for financial reporting, namely: There are still many shortcomings in this local government information system so that many jobs and other input processes are delayed, therefore in order for these problems to be resolved, preparation is needed from each regional and central apparatus both the readiness of competent human resources, and supporting resources in the form of advice and infrastructure.	Stages: Resources Human resources have been fulfilled and are in accordance with their duties and functions. Availability of facilities and infrastructure available both wifi networks, computers and other supporting tools Communication Communication between agencies in realizing information and to achieve this, teamwork is needed from each regional apparatus.
4	The Effect of SIPD Implementati on on the Performance of Financial Managers at the Cimahi City DPRD Secretariat	Malasar i Dewi, Nia Sumiati, Warman Suryam an	2023	Simultaneously, the SIPD implementation variable has a significant influence on the performance of financial managers in financial administration at the Secretariat of the Regional People's Representative Council of Cimahi City, which is 45.1%. While the remaining 54.9% has not been maximized by the Secretariat of the Regional People's Representative Council of Cimahi City.	SIPD implementation has a significant influence on the performance of financial managers in financial administration.
5	Analysis of the Implementati on of the Regional Government	Izzul Muttaqi n, Ulfa Adiranti and Rahayu	2023	In 2021, to be precise in October, Probolinggo City conducted a trial implementation of SIPD, but it turned out that there were several obstacles, such	Influencing factors: Policy standards and objectives / policy measures and objectives; Understanding a standard or policy will lead to success,

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<p>Information System (SIPD) in the Treasury and Regional Cash Division of BPPKAD Probolinggo City</p>	<p>Dewi Zakiyah Rf</p>	<p>as in the Treasury and Kasda SIPD Sections not being able to facilitate / provide some of the reports needed. However, BPPKAD Probolinggo City as the implementer of SIPD continues to make adjustments in order to run SIPD optimally. This is proven by coordinating with the central SIPD team, establishing communication and cooperation with other local governments that have fully implemented SIPD. So that slowly SIPD has shown progress, namely gradual updates. So the central government as the maker of systems and rules is expected to immediately make improvements, updates so that the performance of each SKPD can run quickly, optimally, accountably and information both financial or other government needed by SKPD and Government is available.</p>	<p>Resources; The ability of resources is key to the successful implementation of a policy. Characteristics of the implementing organization; In the SIPD implementation process, every party involved has the goal of achieving the creation of a good quality regional planning and financial system, including a system of guidance and supervision of SIPD implementers at the SKPD level so that the integration process runs well. Inter-organizational communication; The importance of communication is crucial in the process of revamping SIPD so that it can run optimally. Disposition or attitude of the implementers; Sort out, analyze and study the implementation of SIPD. Social, political and economic environment; Good environmental conditions make BPPKAD Probolinggo City in carrying out its duties and responsibilities professional and trustworthy as evidenced by the many developments in</p>
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				economic, social and political terms.
6	The Effect of Implementing the Local Government Information System (SIPD) on the Flexibility of Financial Management Patterns at the Regional Public Service Agency (PPK-BLUD) at Asy-Syifa' West Sumbawa Hospital	Bustanu 2023 Ahmad Yamin and Zulkieflimansya	(1). The application of SIPD has not been fully carried out by the Regional General Hospital because the menu in SIPD has not accommodated what BLUD needs, especially in financial reporting and expenditure administration because there is no flexibility in making expenditures, because if there is an error in administration, it will result in a loss of funds. It takes a while to correct the error because the central government is in control of the data base, not the government. area 2. The implementation of the Local Government Information System (SIPD) partially has a positive and significant effect on the Flexibility of Financial Management of Service Agencies. Regional General (PPK-BLUD) at Asy Syifa West Sumbawa Hospital with a t value of t count greater than t table or $2.525 > 1.725$ or with a significance $\alpha$ of $0.021 < 0.05$	Obstacles: the existing menu in SIPD has not accommodated what BLUD needs It takes a long time to correct the error because the central government is in control of the data base, not the local government. Influence: The implementation of the Local Government Information System (SIPD) partially has a positive and significant effect on the Flexibility of Financial Management.
7	Technology Innovation in Government: Implementati	Agustin Maulani Mocha	2024	The results of this literature study show that the implementation of SIPD in some regions has Implementation effectiveness depends on on factors such as:

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<p>on of SIPD as a Tool to Support Optimization of Regional Financial Management</p>	<p>mmad Isa Anshori and Nurita Andrian i</p>	<p>been effective, the implementation in the process of financial management has been running, especially planning and budgeting, as well as the following</p>	<p>Stakeholder support, resources Organizational readiness in the face of change. Effectiveness Indicator Operational efficiency Increased transparency Positive impact on public services</p>
		<p>There are 7 obstacles faced by the regions in implementing SIPD, namely 1). Error; 2). Source power; 3). Limited menu; 4). Lack of training; 5). Internet network; 6). Communication; 7). Leadership style.</p>	<p>SIPD implementation in various regions proved to be effective and made it easier in the financial management process. However in some areas has not been effective due to there are several obstacles faced by each region. Such as:</p> <ul style="list-style-type: none"> <li>• Error</li> <li>• Resources</li> <li>• Limited menu</li> <li>• Lack of training</li> <li>• Internet network</li> <li>• Communication</li> <li>• Leadership style.</li> </ul>
<p>8 Implementati on of the Local Government Information System (SIPD) in Financial Accountabilit y at the Regional Secretariat of Sumenep District</p>	<p>Citra 2024 Gitarisd iana, Wilda Rasaili and Ach. Andiriy anto</p>	<p>Regional Secretariat of Sumenep District, which consists of 9 Section, able to implement the Local Government Information System (SIPD) appropriately and well according to the existing account codes and budget variables, and able to account for financial reports starting from planning, Budget Realization Reports</p>	<p>Strategy: Implementing policy standards and objectives by applying all budgets in accordance with SIPD account codes including in determining budget variables in accordance with the conditions in SIPD, which have been organized with the right target in accordance with the desired conditions. In implementing SIPD, it has been adjusted to the Decree</p>

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				and Notes to Financial Statements.	of Permendagri Number 77 of 2020 concerning regional financial management guidelines, and Permendagri Number 12 of 2019 concerning Technical Guidelines for Regional Financial Management, so that SIPD is implemented appropriately and in accordance with the account code in SIPD.
					<ul style="list-style-type: none"> <li>• Highly competent performance in implementing SIPD</li> <li>• There is a good procedural mechanism to achieve program goals and objectives in accordance with the budget code and clature number in SIPD.</li> <li>• Democratic, enthusiastic and responsive attitude in conducting SIPD</li> </ul>
9	The Effect of Financial Management and Understanding of Local Government Information Systems (SIPD) on the Quality of Financial Statements	Ni Kadek Novi Puspita Dewi, Elin Erlina Sasanti and Nungki Kartikas ari	2023	Financial management has positive relationship but no significant effect on quality finance and understanding of SIPD have a positive and significant effect to the quality of financial statements.	Factors that influence: Compliance with established policies and regulations. Understanding of local government information systems (SIPD)
10	Analysis of the Determination of the Local Government	Muhamad Irfan Nasution,	2021	BPKAD Medan City has used the Local Government Information System (SIPD) application to carry out the	Success factors: <ul style="list-style-type: none"> <li>• Has used this web-based application to carry out the policies needed to carry out various activities that are</li> </ul>

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Information System (SIPD) at the Regional Financial and Asset Management Agency (BPKAD) of Medan City	Nurwan i	policies needed to carry out various activities that are part of the program. medan city government.	programs of the medan city government. <ul style="list-style-type: none"> <li>▸ Ability to utilize available resources</li> <li>▸ Cooperation</li> <li>▸ Communication</li> <li>▸ Good character of the policy implementer, has an honest attitude and commitment in carrying out a responsibility given.</li> <li>▸ Social, political and economic conditions are harmonious and developing accordingly</li> </ul>
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### METHODS

This study uses a literature review research methodology to analyze the implementation and effectiveness of the Local Government Information System (SIPD) in local financial management in Indonesia. The selection of this method is based on its ability to allow researchers to collect, examine, and integrate information from various relevant previous studies related to the problem under study. The author analyzes the data based on the evaluation of scientific articles, journals, and laws and regulations. The next section outlines the various stages of the approach used in this research: Data Collection techniques in this literature review study were carried out using a series of systematic procedures, namely: Source identification, The researcher found various literature materials related to the research problem, which included scientific publications, academic articles, and government documents related to the implementation and effectiveness of SIPD. These sources were obtained from academic databases such as Google Scholar and Publish or Perish. Selection criteria, To ensure the excellence and relevance of the literature studied, the researchers applied specific criteria for selection. The criteria included recent publications over the past 5 years, with a clear focus on SIPD topics, written by reputable institutions or authors. Data Analysis, After the data collection process, the next step is to analyze the data in the following way: Taxonomy and grouping, The literature was categorized based on key themes related to the research objectives, including difficulties associated with SIPD implementation, the effect of SIPD on transparency and accountability, and factors affecting the success of SIPD. Systematization of Analysis, The researcher used content analysis methodology to review and consolidate the findings obtained from the collected literature. This methodology involves thorough reading, discerning significant patterns and themes, and formulating informed conclusions. Presentation of Results, The findings of this study are organized into several categories, which include: Overview of SIPD Implementation, This section provides an overview of SIPD implementation in different locations, including the rules, procedures, and infrastructure used. SIPD Effectiveness Assessment, Evaluate the effect of SIPD on

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transparency, accountability, and local financial performance, using conclusions drawn from the reviewed literature. Difficulty Analysis and Proposed Solution, Identify key barriers faced during SIPD implementation and provide strategic suggestions to overcome these challenges and improve SIPD utilization.

### RESULTS AND DISCUSSION

#### SIPD Implementation Process

The use of the Local Government Information System (SIPD) in local financial management is an important step that aims to improve transparency, accountability, and efficiency in financial management. The Local Government Information System (SIPD) is very effective because it can store data related to regional development planning, regional financial information, and local government guidance and supervision. The system was specifically developed to incorporate various aspects of financial management, covering activities such as planning, budgeting, implementation, and reporting. SIPD implementation progresses through various stages of development, as determined by analysis and observation. Testing and refinement stage, Initial trials of SIPD were conducted in various local governments as pilot projects, including in West Java Province, Central Java Province, West Sumatra Province, Surabaya City, and Makassar City. By implementing these pilot programs, the government was able to identify and address the problems and needs of each region, allowing them to make the necessary refinements and modifications before full implementation. With high dedication from both central and local governments, SIPD has enormous capacity to substantially improve local financial control. System Development and Modification, After the limited pilot was completed, a comprehensive study was conducted to determine areas for improvement. Findings from the limited pilot showed that SIPD can provide great benefits in terms of transparency and effectiveness of local financial management. However, the pilot also revealed several constraints, such as the need for additional training, regulatory modifications, and technical infrastructure improvements. Currently, the SIPD system is in the process of being developed and refined for regional financial management. Once this stage is completed, the adoption of SIPD will be expanded to other local governments. Growth and Consolidation, After an initial successful pilot, the adoption of SIPD will be expanded to other local governments. This approach requires the provision of comprehensive technology infrastructure and training. SIPD is integrated with other existing information systems in local government, including the Regional Management Information System (SIMDA) and the Regional Financial Information System (SIKD), to ensure data integration and consistency. Improve system resilience and make necessary policy modifications, The central government improved information technology infrastructure to facilitate SIPD operations, including improving server and network capabilities. In addition, policy modifications were also made to support the implementation of SIPD, including the establishment of regulations governing the procedures for using the system and reporting obligations. Implementation and Supervision, After a successful pilot, the implementation of SIPD was expanded to more regions, while continuing to conduct monitoring and assessment. Local governments are making efforts to facilitate the implementation and effective utilization of the SIPD system. This is evidenced by various efforts made by the government, including communicating through socialization and

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coordination meetings, organizing SIPD application workshops, and consistently attending training from the Ministry of Home Affairs whenever experiencing problems such as system errors or features that cannot be accessed even though they are available in the menu. To maximize the efficiency of the Local Government Information System (SIPD), it is crucial to have sufficient human resources dedicated to managing the system. In addition, it is imperative to ensure that adequate financial resources and allocations are available to facilitate the smooth operation of SIPD. Efficiency and accountability can be ensured by complying with relevant laws and regulations while making bureaucratic appointments and providing incentives. Equally important is the existence of clear and user-friendly standard operating procedures (SOPs), to ensure that each stage of the implementation process is carried out consistently and accurately. The existence of adequate facilities and infrastructure, including wifi networks, computers, and other necessary equipment, is essential for the efficient functioning of SIPD. By hiring skilled personnel, ensuring adequate resources, and establishing clear standard operating procedures, SIPD implementation is expected to run smoothly and provide maximum benefits to local governments.

Local governments should carefully plan strategies for implementing the Local Financial Management Information System (SIPD), particularly in financial administration, to ensure successful implementation and utilization of the system. Local governments can improve the efficiency of local financial management by effectively creating and implementing the following methods, namely by incorporating SIPD into financial administration. The following are some ways to improve the implementation of the Local Government Information System (SIPD). First, standard policies and objectives are implemented by allocating the entire budget according to the SIPD account code. This includes determining budget variables that are adjusted to the conditions in SIPD, ensuring that the budget is prepared effectively to meet the desired needs. Second, the implementation of SIPD is adjusted to the Decree of Permendagri Number 77 of 2020 concerning regional financial management guidelines, as well as Permendagri Number 12 of 2019 concerning Technical Guidelines for Regional Financial Management, so that the implementation of SIPD is carried out appropriately and in accordance with existing account codes. Third, proper implementation of SIPD relies heavily on the presence of highly skilled workers. In addition, it is critical to establish an effective procedural framework to achieve program goals and objectives by adhering to the budget codes and nomenclature numbers outlined in SIPD. Furthermore, successful implementation of SIPD requires a democratic, energetic and responsive approach. In addition, there are different strategies, including the SO Strategy, which leverages strengths (such as sufficient budget) to seize opportunities (such as training), the SC Strategy (Strength-Culture), which leverages strengths (such as a clear mission) to leverage culture (such as cooperation), and the AgC Strategy (Agility-Culture), which uses intelligence to improve culture (such as discipline, professionalism, and responsibility). By applying these tactics, the implementation of SIPD is expected to run smoothly and efficiently, so that it can provide optimal benefits for regional financial management.

**Challenges and Barriers in SIPD Implementation**

Local governments face various challenges and obstacles when implementing and operationalizing the Regional Financial Management Information System (SIPD), especially in the area of regional financial administration. These challenges must be overcome for the process to work well. Initially, the implementation of SIPD requires a period of adjustment and knowledge acquisition for users to fully understand and use it effectively. In addition, SIPD often experiences technological issues, including errors, system outages and slow response times. Technical glitches can impede financial administration processes, causing delays and requiring prompt technical involvement to resolve. In addition, the menus within SIPD have proven inadequate in meeting all user needs, resulting in some critical functions not being performed properly. In addition, the financial administration process has experienced extended time, in contrast to the previous system, resulting in decreased work efficiency and additional workload for users. To overcome these problems, it is important for all relevant parties to show high dedication and collaborate effectively to improve and streamline the use of SIPD, so as to achieve the desired goals.

**Effectiveness of SIPD in Improving Transparency, Accountability and Efficiency**

The Regional Financial Management Information System (SIPD) is a system specifically designed to improve the efficiency of local government financial management in Indonesia. Successful implementation is highly dependent on several important aspects that significantly affect the process. Stakeholders' involvement and commitment play an important role in determining the effectiveness of the adopted program or policy. In addition, adequate resources, including personnel, funding, and technology, are essential to support the smooth implementation process. Organizational readiness to deal with change is another important element, as businesses that are flexible and ready to adapt will be better able to overcome hurdles and obstacles that arise during the implementation process. Implementation effectiveness will be easier to achieve and targeted objectives can be better met if there is strong support from stakeholders, adequate resources, and good organizational readiness. The main objective of SIPD implementation, particularly in financial administration, is to improve the efficiency of budget management and financial reporting, and facilitate more informed decision-making. Below are key factors related to SIPD implementation outcomes: Improved Financial Transparency, The Local Financial Management System (SIPD) enables local governments to improve transparency by providing public access to financial information and facilitating efficient monitoring and oversight of local financial management. Accountability, SIPD enables local governments to produce highly accurate financial reports that comply with government accounting rules. The system records every transaction and data change, simplifying the audit process and increasing accountability. Efficiency and effectiveness of financial management, SIPD can automate time-consuming manual procedures, such as recording and reporting, thereby minimizing the potential for human error and increasing productivity. Improved Budget Efficiency, SIPD enables more efficient budget management. Local governments can improve their budget management by effectively managing financial resources, allocating them strategically, and closely monitoring spending, thereby minimizing the possibility of financial inefficiency or misappropriation of funds. SIPD assists local governments in

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improving their ability to monitor and manage budgets more efficiently. SIPD facilitates quick discovery and correction of budget irregularities. Data Integration, Consolidated financial data enables budgetary scrutiny and planning. Decisions made based on sound facts are generally more efficient. SIPD offers predictive techniques to anticipate future financial conditions, thus assisting local governments in developing more focused programs and initiatives. Improved Service Quality SIPD improves the quality of services offered by local governments to the community by implementing more efficient and responsive financial management. Compliance with Regulations, The use of SIPD can assist local governments in complying with relevant financial management standards, such as Government Accounting Standards (SAP) or provisions set by the Supreme Audit Agency (BPK).

The success of a Local Government Information System (SIPD) depends on many elements. Several key elements influence the successful implementation of a Local Government Information System (SIPD). First, it is important to comply with established policies and regulations to ensure that all procedures are carried out in accordance with the applicable provisions. In addition, a comprehensive understanding of SIPD by all relevant parties will accelerate the implementation process. Furthermore, the effectiveness of SIPD in supporting local financial management must be sufficient to ensure tangible benefits. In addition, the language and menu interface of SIPD should be easily understood by users to ensure effective use. In addition, SIPD should also have clear procedures for local financial administration activities to prevent potential confusion or errors. In addition, SIPD should have the ability to reduce barriers faced by users, thereby increasing work productivity. In addition, the capacity to effectively utilize existing resources is also very important. Furthermore, effective communication during the SIPD overhaul process will ensure that all stakeholders can collaborate harmoniously. Moreover, successful implementation requires collaboration with multiple stakeholders. In addition, honesty and dedication in carrying out assigned tasks will enhance integrity and foster trust. Ultimately, successful SIPD implementation will be facilitated by the presence of supportive social, political, and economic factors that work as expected.

### CONCLUSION

Based on the literature analysis, it can be concluded that the implementation and effectiveness of the Local Government Information System (SIPD) in local financial management in Indonesia has made significant progress in recent years. The SIPD implementation process consists of several development phases, including piloting and customization, system development and customization, expansion and integration, system strengthening and policy modification, and implementation and monitoring. This phase includes building technological infrastructure, creating specialized software, and training human resources for the purpose of system utilization and maintenance. Local governments face various challenges and obstacles in implementing and operationalizing the Regional Financial Management Information System (SIPD), especially in the field of regional financial administration. These challenges must be faced and overcome. Initially, the implementation of SIPD requires an adjustment period and knowledge acquisition process for users to fully understand the ideal utilization. In addition, SIPD often experiences technological issues such as disruptions, system outages or slow response times. Technical

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glitches can impede financial administration processes, resulting in delays and requiring prompt technical involvement to resolve. In addition, the menus in SIPD proved insufficient to meet all user needs, resulting in incomplete implementation of crucial services. In addition, the financial administration procedures in the current system have a longer flow, resulting in decreased work efficiency and additional workload for users. To overcome these problems, it is important for all relevant parties to show high dedication and collaborate effectively in order to improve and streamline the use of SIPD, so as to ensure the achievement of the desired goals. The government's approach to adopting the Local Financial Management Information System (SIPD), particularly in financial administration, is as follows: First, policy standards and objectives are implemented by allocating the entire budget according to SIPD account codes. This includes determining budget variables that are adjusted to the conditions in SIPD, ensuring that the budget is prepared effectively to meet the desired needs. Second, the implementation of SIPD is adjusted to the Decree of Permendagri Number 77 of 2020 concerning regional financial management guidelines, as well as Permendagri Number 12 of 2019 concerning Technical Guidelines for Regional Financial Management, so that the implementation of SIPD is carried out appropriately and in accordance with existing account codes. Third, the proper implementation of SIPD is highly dependent on the presence of highly skilled workers. Fourth, it is critical to establish an effective procedural framework for achieving program goals and objectives by adhering to the budget codes and nomenclature numbers specified in SIPD. Fifth, successful implementation of SIPD requires a democratic, energetic and responsive approach. In addition, there are a variety of different strategies, including the SO Strategy that leverages strengths (such as sufficient budget) to seize opportunities (such as training), the SC Strategy (Strength-Culture) that leverages strengths (such as mission) to capitalize on culture (such as cooperation), and the AgC Strategy (Agility-Culture) that uses agility to enhance culture (such as discipline, professionalism, and responsibility). By using these tactics, it is expected that the implementation of SIPD can run smoothly and efficiently, so that it can provide optimal benefits for regional financial management. The success of implementation is greatly influenced by several crucial aspects that have a significant impact on the process. The involvement and commitment of stakeholders play an important role in determining the effectiveness of the implemented program or policy. In addition, adequate resources, including personnel, funds, and technological capabilities, are also very important to support the smooth functioning of all implementation components. Organizational readiness to deal with change is another important component, as adaptable and prepared businesses will be better able to overcome obstacles and barriers that arise during the implementation process. Implementation effectiveness can be more easily achieved and targeted objectives can be better met if there is strong support from stakeholders, adequate resources, and good organizational readiness. Effective implementation of a Local Government Information System (SIPD) is influenced by many factors. Several key elements can influence the successful implementation of a Local Government Information System (SIPD). First, it is important to comply with established policies and regulations to ensure that all procedures are carried out in accordance with applicable provisions. In addition, a comprehensive understanding of SIPD by all relevant parties will accelerate the implementation process. Furthermore, the effectiveness of SIPD in supporting local financial management must be

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sufficient to ensure tangible benefits. In addition, the language and menus within SIPD should be easily understood by users to ensure effective use. Furthermore, it is critical to have a clear set of procedures for local financial administration activities to prevent potential confusion or errors. In addition, SIPD should also have the ability to mitigate challenges faced by users, so as to increase work productivity. In addition, the capacity to effectively utilize existing resources is also very important. Moreover, effective communication during the SIPD overhaul process will ensure that all stakeholders can collaborate harmoniously. Moreover, successful implementation requires collaboration with multiple stakeholders. In addition, honesty and dedication in carrying out assigned tasks will enhance integrity and foster trust. Ultimately, the success of SIPD implementation depends on the existence of conducive social, political, and economic conditions that are aligned and working as intended. Various studies have shown that the success of SIPD can improve transparency, accountability, and efficiency of local financial management. The implementation of SIPD enables faster and more precise monitoring and evaluation of local budgets, thereby facilitating decision-making. By integrating financial data available in real-time, local governments can produce financial reports that are more accurate and in accordance with government accounting principles. Automation of the recording and reporting process minimizes human error and improves budget control efficiency. In addition, the inclusion of transaction monitoring tools allows for easier auditing and promotes greater accountability. Furthermore, SIPD's compatibility with other systems enhances inter-agency collaboration and facilitates more effective planning. SIPD also ensures regulatory compliance and improves the quality of data-driven decision-making.

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