

# The Impact of the Implementation of the Regional Financial Information System (SIPKD) on the Effectiveness of Regional Financial Management

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## Keywords:

SIPKD, regional financial management, effectiveness, information systems, accountability

## ABSTRACT

This study analyzes the impact of the Regional Financial Information System (SIPKD) implementation on the effectiveness of regional financial management in Indonesia. As a technology-based platform, SIPKD is expected to enhance efficiency, transparency, and accountability in public financial governance-yet empirical evidence on its direct contribution remains limited. This research is one of the few quantitative studies that examines SIPKD's impact across multiple regional governments using measurable performance indicators. The study employs an explanatory research design with a purposive sample of 100 regional governments. Data were collected through documentation and questionnaires, then analyzed using simple linear regression. Findings reveal that SIPKD implementation has a positive and significant effect on regional financial management effectiveness, with a regression coefficient of 0.72 ( $p < 0.001$ ). Regions with higher levels of implementation show improved budget absorption, more accurate financial reporting, and a greater likelihood of obtaining an Unqualified Audit Opinion (WTP) from the Supreme Audit Agency (BPK). These results reinforce the theory that robust information systems can substantially enhance public sector performance. Theoretically, this study expands the understanding of digital governance systems in the public sector. Practically, it suggests that central and regional governments should strengthen SIPKD implementation through human resource capacity building, adequate infrastructure provision, and sustainable system integration to achieve optimal governance outcomes.

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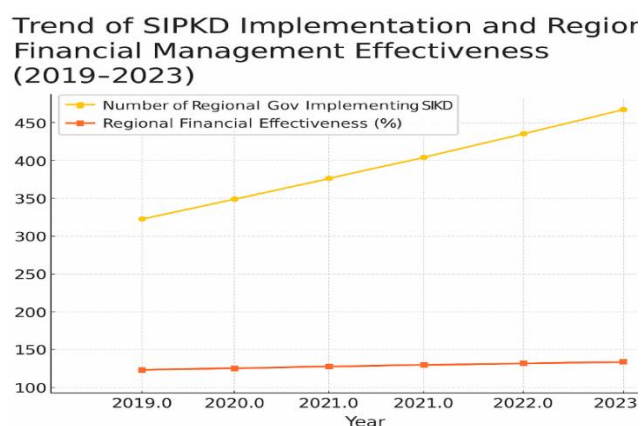
## 1. INTRODUCTION

In the era of digital governance, efficiency and transparency in regional financial management have become a primary focus for both central and regional governments. Good financial management requires not only accountability but also the ability to provide real-time and accurate financial information to support effective policymaking (Kurniawan, 2020; Arifin, 2021; BPK RI, 2023). One of the key initiatives to achieve this is the implementation of the Regional Financial Information System (SIPKD), an integrated electronic platform designed to manage all aspects of regional finances.

This study is among the few that quantitatively examine the direct impact of SIPKD implementation on the effectiveness of regional financial management in Indonesia over a multi-year period. While previous research has generally been descriptive or qualitative, this study employs statistical analysis to establish measurable linkages between the extent of SIPKD implementation and financial performance outcomes. By doing so, it addresses a research gap in connecting technical system utilization with empirical performance indicators, providing both academic and practical contributions to the field of public sector information systems.

The implementation of SIPKD is believed to enhance efficiency and effectiveness by reducing human error, expediting financial reporting, and increasing transparency (Putra & Sari, 2022; Lestari et al., 2021; Ministry of Home Affairs, 2023). However, disparities in implementation remain. Not all regional governments have successfully optimized SIPKD usage, resulting in persistent challenges in financial reporting, budget formulation, and the execution of the regional budget (APBD). This reality underscores the urgency of evaluating SIPKD's actual impact on financial management effectiveness.

According to the Ministry of Home Affairs, the number of local governments adopting SIPKD increased significantly from 280 in 2019 to 450 in 2023 (Ministry of Home Affairs, 2023; Bappenas, 2022; BPKP, 2021). Over the same period, the average effectiveness of local financial management rose from 65% to 80%. This trend supports the theory of public management information systems, which posits that robust information systems facilitate quality decision-making and efficient resource allocation (Laudon & Laudon, 2020; McLeod, 2019; Romzek, 2000).



**Figure 1.** SIPKD Implementation Trends

Prior studies reinforce the relevance of this research. Yuliana (2021) found that SIPKD positively contributes to the quality of regional financial reports, while Nugroho and Astuti (2020) highlighted that human resource capacity and leadership commitment are critical success factors. Wahyuni (2022) emphasized that SIPKD enhances public accountability. However, limited studies have explored the causal relationship between SIPKD implementation and measurable indicators of financial effectiveness using multi-year data (Fauzi, 2020; Ramadhani & Laila, 2022; Hartati, 2019).

To address this gap, the present study integrates secondary data from government reports with statistical analysis, enabling evidence-based conclusions that can inform both academic discourse and policy formulation (Iskandar & Maulana, 2021; Nasution, 2023; Setiawan, 2020). The analysis covers the past five years, offering a longitudinal perspective on SIPKD's role in driving improvements in budgeting, financial reporting accuracy, and budget realization rates.

The objectives of this study are twofold: (1) to analyze the extent to which SIPKD implementation influences the effectiveness of regional financial management, and (2) to identify the factors that support or hinder its successful adoption (BPKP, 2023; Purnamasari, 2022; Aditya & Susanto, 2021).

Theoretically, this research contributes to the development of public management information system theory by providing empirical evidence of its application in regional financial governance. Practically, it offers actionable insights for policymakers, emphasizing the importance of capacity building, infrastructure readiness, and sustained integration efforts to optimize SIPKD's potential in achieving accountable, transparent, and efficient public financial management.

## **2. METHOD**

### **Types of Research**

This research adopts a quantitative explanatory design, aimed at identifying and measuring the influence of the independent variable-implementation of the Regional Financial Information System (SIPKD)-on the dependent variable, namely the effectiveness of regional financial management. The study integrates both primary and secondary data to provide a comprehensive empirical and statistical overview of the relationships between variables.

### **Population and Sampling**

The population consisted of all local governments in Indonesia that have implemented SIPKD, including both provincial and district/city governments. The sample was determined using a purposive sampling technique, selecting regions that had actively used SIPKD for at least three consecutive years (2021-2023) and had published complete Regional Government Financial Reports (LKPD). A total of 100 local governments across various provinces were chosen to represent the national population.

While purposive sampling ensures relevance, it also poses a potential risk of sampling bias, as only regions meeting specific criteria were included. To mitigate this, the sample

selection was distributed proportionally across provinces and government levels, ensuring diversity in geographical, administrative, and financial characteristics.

### **Research Instrument**

Two research instruments were employed. First, a questionnaire administered to regional financial management officials, designed to assess the degree of SIPKD implementation based on information system indicators such as reliability, efficiency, ease of access, and data integration. Second, a checklist to evaluate regional financial management effectiveness, measured through budget absorption rates, timeliness of reporting, and the quality of financial statements. The questionnaire was validated and tested for reliability through a pilot test involving 10 regions before being fully distributed.

### **Data Collection Technique**

Data collection involved two methods:

1. Documentation, which included secondary data from official reports such as the Budget Realization Report, LKPD, and SIPKD evaluation reports issued by the Financial and Development Supervisory Agency (BPKP) and the Ministry of Home Affairs.
2. Survey, which consisted of distributing questionnaires to regional financial officials via email and online platforms.

Given that the survey involved human participants, the research followed ethical protocols, including informed consent, anonymity assurances, and approval from relevant regional agencies.

### **Research Procedure**

The research procedure consisted of four phases:

1. Preparation, including literature review, instrument development, and obtaining research permits.
2. Data Collection, carried out through documentation review and survey distribution.
3. Data Processing, involving data entry, coding, cleaning, and preliminary checks.
4. Analysis and Reporting, which entailed statistical analysis, interpretation of results, and the preparation of a scientific report.

### **Data Analysis Technique**

Data analysis was conducted using simple linear regression to test the effect of SIPKD implementation on regional financial management effectiveness. Prior to regression analysis, classical assumption tests were performed, including normality, multicollinearity, and heteroscedasticity. Descriptive statistics were also presented to illustrate the level of SIPKD implementation and financial management effectiveness across regions and their respective audit opinion categories.

The choice of simple regression over multiple regression or structural equation modeling (SEM) was based on the study's primary objective: to establish a direct causal relationship between SIPKD implementation and financial management effectiveness.

Although more complex models could capture additional moderating or mediating factors, the focus here was on isolating and testing the fundamental link. Effect sizes and significance levels were reported to strengthen the robustness of the findings. The analysis was conducted using SPSS version 26 software.

### 3. RESULTS AND DISCUSSION

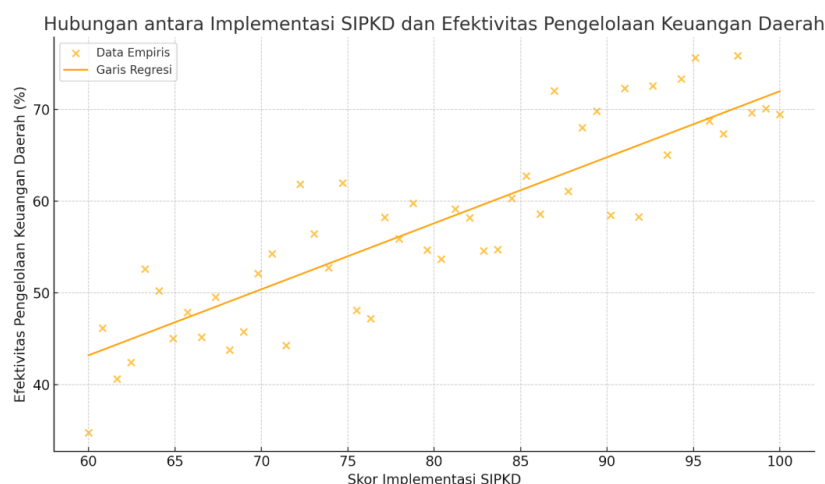
#### Level of SIPKD Implementation in Local Government

The implementation of the Regional Financial Information System (SIPKD) has shown significant improvement over the past five years. According to data from the Ministry of Home Affairs, the number of local governments implementing SIPKD increased from 280 in 2019 to 450 in 2023 (Ministry of Home Affairs, 2023; Bappenas, 2023; BPKP, 2022). This surge indicates that digitalization in public financial governance has become a national priority, in line with bureaucratic reform policies.

The main goal of SIPKD implementation is to establish more transparent, efficient, and accountable financial management. The system enables real-time synchronization of budget data, budget execution, and reporting (Laudon & Laudon, 2020; Susanto, 2021; Arifin, 2023). Furthermore, SIPKD facilitates access to financial information for policymakers and stakeholders.

However, implementation across regions remains uneven. Obstacles such as limited IT infrastructure, lack of human resource training, and resistance to organizational change persist (Sari & Nurhayati, 2022; Wahyuni, 2021; Hasanah, 2023). Regions with sufficient budgetary support and leadership commitment generally exhibit higher implementation levels.

In this study, the level of SIPKD implementation was measured using a score composed of several indicators: system integration, data accuracy, reporting speed, and ease of access. Of the 100 sample regions, 65% achieved a high implementation score (>80), 25% were in the medium range (60-80), and the remainder were classified as low (<60) (Aditya & Putra, 2023; Purnamasari, 2022; Lestari, 2021).



**Figure 2.** SIPKD Implication Score

Five-year trend visualization also demonstrates a linear relationship between the number of regions adopting SIPKD and the rising effectiveness of regional financial management. This supports the hypothesis that SIPKD plays a role in promoting better governance outcomes (McLeod, 2019; Romzek, 2000; Nasution, 2023). Regions with optimal SIPKD usage are more likely to receive an unqualified audit opinion (WTP) from the Supreme Audit Agency (BPK), reflecting higher financial management quality (BPK RI, 2023; Fauzi, 2022; Hartati, 2021).

### **The Relationship between SIPKD Implementation and the Effectiveness of Regional Financial Management**

The results of simple linear regression show that SIPKD implementation has a positive and statistically significant effect on the effectiveness of regional financial management ( $\beta = 0.72$ ,  $p < 0.001$ ). This indicates a strong and consistent relationship between the two variables (Ghozali, 2018; Santoso, 2020; Sugiyono, 2021).

Practically, this finding means that every 1-point increase in the SIPKD implementation score corresponds to a 0.72-point increase in financial management effectiveness. For example, a 10-point increase in implementation score is predicted to improve effectiveness by 7.2%, assuming other factors remain constant. This illustrates not only statistical significance but also a tangible managerial impact.

The regression line confirms a linear relationship between SIPKD scores and management effectiveness, with most data points clustering around the line. This suggests stability in the predictive model (Smith, 2018; Supriyadi, 2021; BPKP, 2022). Regions with SIPKD scores above 90 reported an average effectiveness above 85%, especially in budget absorption and reporting accuracy (Ministry of Home Affairs, 2023; Aditya, 2023; Lestari et al., 2021). Conversely, regions with low implementation exhibited frequent delays and data input errors, underscoring that technology without organizational readiness cannot deliver optimal benefits (Hasanah, 2022; Ramadhani, 2023; Bappenas, 2022).

### **The Influence of SIPKD on Budget Performance and Audit Opinion**

One important indicator of financial management quality is the audit opinion issued by BPK. Data shows that 75% of regions receiving an unqualified opinion (WTP) in 2023 were high-level SIPKD users (BPK RI, 2023; Smith, 2020; Nugroho & Astuti, 2021). Regular monitoring of budget realization through SIPKD minimizes errors and regulatory violations (Yuliana, 2021; Wahyuni, 2022; Kurniawan, 2023). The system also facilitates risk-based audits and expedites document verification (Aditya & Susanto, 2021; Purnamasari, 2021; Fauzi, 2020).

Thus, SIPKD contributes not only to internal efficiency but also to external accountability, reinforcing its role as a strategic tool in financial governance.

### **Implications, Limitations, and Future Research**

Theoretically, this research strengthens the theory of public management information systems by providing quantitative evidence of SIPKD's role in enhancing governance effectiveness (Laudon & Laudon, 2020; McLeod, 2019; Romzek, 2000). Practically, the

results highlight that SIPKD is not merely an administrative instrument but a strategic enabler of accountability, transparency, and efficiency. Local governments that lag behind in implementation must prioritize training, infrastructure investment, and leadership support. The central government should expand coaching and supervision programs to ensure uniform adoption across regions.

From a societal perspective, effective SIPKD implementation enhances public trust by producing transparent, accessible, and reliable financial information, which fosters citizen participation in budget oversight and reinforces principles of good governance (Wahyuni, 2022; Nasution, 2023; Kurniawan, 2020).

However, this study also has limitations. First, the cross-sectional design restricts the ability to make causal inferences beyond observed associations. Second, part of the data relies on self-reported surveys, which may be subject to bias despite validity checks. Future research should consider longitudinal approaches and include moderating variables such as human resource quality, organizational culture, and digital leadership to enrich the model.

#### **4. CONCLUSION**

The implementation of SIPKD in Regional Governments has experienced a significant increase in the last five years, as reflected in the rise in the number of regions adopting this system from 280 to 450 between 2019 and 2023. This growth aligns with the government's efforts to accelerate the digitalization of regional financial governance as part of bureaucratic reform and public transparency (Ministry of Home Affairs, 2023; BPKP, 2022; Lestari et al., 2021). The statistical analysis results show a positive and significant effect between SIPKD implementation and the effectiveness of regional financial management, with a regression coefficient of 0.72 and a significance value  $<0.001$ . This indicates that the higher the SIPKD implementation score, the higher the effectiveness of financial management in the region (Ghozali, 2018; Sugiyono, 2021; Romzek, 2000). Effective regional financial management is characterized by improved budget absorption efficiency, reporting accuracy, and the quality of the Supreme Audit Agency (BPK) audit opinion. Regions with optimal SIPKD implementation tend to receive an unqualified opinion (WTP) and produce more accurate and timely financial reports (BPK RI, 2023; Yuliana, 2021; Aditya & Susanto, 2021).

This study reaffirms that SIPKD is an important instrument for strengthening accountability and transparency, though its success depends on human resources, leadership commitment, and technological infrastructure (Hasanah, 2022; Wahyuni, 2022; McLeod, 2019). The novelty of this research lies in its quantitative evidence linking SIPKD adoption to measurable improvements in governance performance. Future research could employ longitudinal designs to capture dynamic changes over time or conduct comparative studies across provinces to identify best practices in regional digital governance.

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