
**THE ROLE OF THE IMPLEMENTATION OF THE REGIONAL GOVERNMENT
INFORMATION SYSTEM (SIPD) IN ACHIEVING REGIONAL FINANCIAL
PERFORMANCE THROUGH THE EFFICIENCY OF REGIONAL FINANCIAL
MANAGEMENT**



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Abstract

Effective regional financial performance reflects efficient financial management supported by an integrated information system. This study aims to examine the effect of regional financial management efficiency on regional financial performance, with the implementation of the Regional Government Information System (SIPD) as a mediating variable. A quantitative approach was employed, involving 229 respondents from Regional Apparatus Organizations (OPD). Data were analyzed using multiple linear regression and moderation tests. The results indicate that regional financial management efficiency significantly affects regional financial performance. Furthermore, the implementation of SIPD was found to moderate the relationship between these variables. These findings highlight the importance of utilizing information technology to enhance accountability and effectiveness in regional financial management. The study is limited by its regional scope and the quantitative method applied. Therefore, future research is recommended to adopt a mixed-method approach and include a broader regional coverage to obtain more comprehensive results.

Keywords: Efficiency of Financial Management, Regional Financial Performance, SIPD

INTRODUCTION

Regional financial performance reflects the ability of local governments to manage public finances effectively, efficiently, transparently, and accountably to support the achievement of development goals. According to (Puspitasari, 2022), financial performance is not only measured by the level of budget realization but also by the extent to which the regional budget can deliver optimal results for the community. Good financial performance indicates harmony between planning, implementation, and accountability in budgeting, which reflects the principles of good governance. One of the key factors influencing regional financial performance is the efficiency of financial management, which refers to the ability of local governments to allocate, utilize, and account for financial resources prudently and in a targeted manner without reducing the quality of public services (Ulya & Astuti, 2018b). Efficiency not only reflects the frugality of budget use but also demonstrates a systematic, measurable workflow capable of minimizing waste. On the other hand, advances in information technology have encouraged local governments to adopt integrated digital systems in financial management. One of these efforts is realized through the implementation of the Regional Government Information System (SIPD), as regulated in Minister of Home Affairs Regulation (Permendagri) Number 70 of 2019. SIPD is an information system used to collect, process, and present regional government data and information to support the processes of planning, implementation, reporting, and evaluation of regional development. This system serves as a strategic instrument to enhance transparency, accountability, and efficiency in regional financial management through the digitalization of administrative processes that were previously conducted manually.

However, the implementation of SIPD in various regions, including Central Sulawesi Province, still faces several challenges. Based on preliminary observations and regional financial audit reports, issues such as delays in financial data input, limited competence of officials in operating the system, and inadequate network infrastructure in several districts have been identified. Some regional work units (OPD) in Central Sulawesi have also not yet fully utilized SIPD optimally in preparing reports and controlling budgets. This condition affects the effectiveness of budget utilization and causes discrepancies between expenditure realization and targeted performance outcomes. Such phenomena indicate that the financial performance of Central Sulawesi has not yet fully reflected its potential, particularly in terms of efficiency and digital-based financial transparency.

Previous studies have shown that efficiency and financial information systems play a crucial role in improving the financial performance of local governments. (Hindriani et al., 2020) stated that digitalization through internal control systems can strengthen the effectiveness of budget planning and implementation. (Vitriana et al., 2022) found that consistent implementation of SIPD enhances regional fiscal accountability and performance. Furthermore, (Marina, 2025) emphasized that the success of online financial information systems depends on the quality of internal management and the readiness of human resources. Nevertheless, most previous studies have focused more on direct relationships between variables without examining how SIPD functions as a moderating variable that can strengthen the influence of efficiency on regional financial performance. In addition, empirical studies focusing on the eastern regions of Indonesia, particularly Central Sulawesi, remain limited, thereby necessitating further research to fill this research gap.

The urgency of this research lies in the importance of understanding how the efficiency of financial management and the implementation of the Regional Government Information System (SIPD) can synergistically enhance regional financial performance amid the growing demands for transparency and public accountability. Moreover, this study is crucial due to the limited empirical investigations that explore the effectiveness of SIPD as a moderating variable in developing regions such as Central Sulawesi Province, which faces challenges related to infrastructure and human resource capacity.

Based on this background, this research aims to analyze the effect of financial management efficiency on regional financial performance, examine the impact of SIPD implementation on regional financial performance, and test the role of SIPD as a moderating variable that can strengthen the relationship between financial management efficiency and local government financial performance in Central Sulawesi Province. The novelty of this study lies in its approach, which integrates the concept of regional financial efficiency and digital governance through the moderating variable of SIPD. Furthermore, the study focuses on developing regions outside Java Island, offering new perspectives on the implementation of financial information systems in areas with different infrastructure and human resource challenges. The results of this study are expected to enrich the literature on digital-based public financial management and provide strategic recommendations for local governments to improve financial performance through the optimization of SIPD implementation.

REVIEW OF LITERATURE

Agency Theory

Jensen & Meckling (1976) explain that the agency relationship is a contract between the principal and the agent, which is prone to information asymmetry and conflicts of interest, resulting in agency costs such as monitoring, bonding, and residual loss. Fama & Jensen (1983) emphasize that agency relationships also occur within governmental institutions due to the separation between decision-making functions and risk accountability. In the context of local government, this theory is used to explain the relationship between the local government as the agent and the community or central government as the principal, particularly in public financial management. Local governments are required to manage public finances efficiently, transparently, and accountably, yet potential conflicts of interest still arise. Therefore, agency theory highlights the importance of reliable control and information systems such as the Regional Government Information System (SIPD) to minimize agency costs and enhance financial performance.

The Effect of Financial Management Efficiency on Local Government Financial Performance

Local government financial performance is significantly influenced by the level of efficiency in planning, implementation, and budget evaluation (Sathierbach et al., 2015; Garcia, 2024; Ruhly et al., 2022; & Anderson et al., 2024), as efficiency reflects the optimization of public resources without waste (Haqiqi et al., 2025). Within the framework of agency theory, efficiency indicates the extent to which the agent carries out the principal's authority responsibly, and when budgets are managed efficiently, financial performance improves (Cicilia et al., 2015). Efficiency measurement includes budget efficiency (Borger & Kerstens, 1996; Afonso & Fernandes, 2006 and Turati et al., 2012), revenue efficiency

(Loikkanen & Susiluoto, 2005; Fan et al., 2008 and Bostan et al., 2018) , operational efficiency (Worthington & Dollery, 2002 and Kumar & Gulati, 2008), as well as public service efficiency (Castro & Rizzo, 2014; Chang & Chu, 2006 & Graycar et al., 2013). Previous studies have shown that efficiency positively affects regional financial performance (Permatasari & Trisnaningsih, 2022; Tatroman et al., 2023; Zelmiyanti, 2016; Nurhidayat et al., 2020 and Muafiq & Chariri, 2023). Thus, financial management efficiency not only reflects technical capability but also the fiscal responsibility of local governments.

H1: The efficiency of local financial management has a positive effect on local government financial performance.

The Effect of SIPD Implementation on Local Government Financial Performance

The implementation of the Regional Government Information System (SIPD), as regulated in the Ministry of Home Affairs Regulation (Permendagri) No. 70 of 2019, represents a strategic step to realize transparent, accountable, and efficient regional financial governance through the integration of planning, budgeting, implementation, and reporting data in real time. The success of SIPD depends on the readiness of infrastructure, human resource competence, and managerial policy support ((Fauziah et al., 2024). According to (Hindriani et al., 2020), an integrated financial information system improves efficiency, reporting accuracy, and public financial supervision. Within the framework of agency theory, SIPD serves as a control mechanism that reduces information asymmetry between local governments and principals. Research by (Vitriana et al., 2022) and (Husan et al., 2025) indicates that SIPD implementation positively affects accountability and fiscal performance. Therefore, the more effectively SIPD is implemented, the better the financial performance of local governments will be.

H2: SIPD implementation has a significant positive effect on local government financial performance.

SIPD Implementation in Mediating the Effect of Local Financial Management Efficiency on Financial Performance

The efficiency of local financial management is the foundation of sound financial performance; however, its effectiveness increases with the support of information systems such as SIPD, which strengthens transparency and accountability. SIPD integrates all financial management processes and functions as a monitoring mechanism to reduce information asymmetry between agents and principals. High efficiency supports the smooth implementation of SIPD, while optimal SIPD enhances financial management quality through transparency and data accuracy (Ulya & Astuti, 2018; Hindriani et al., 2020). Studies by Vitriana et al. (2022) and Paat & Saleh (2023) also demonstrate that SIPD strengthens the relationship between internal efficiency and organizational performance. Thus, SIPD acts as a mediating variable in the relationship between financial management efficiency and local financial performance.

H3: SIPD implementation mediates the effect of local financial management efficiency on local financial performance.

RESEARCH METHOD

This study employs a quantitative method, with the population consisting of 40 Regional Apparatus Organizations (OPD) in Central Sulawesi Province. The research sample

was determined using purposive sampling with specific criteria for institutional employees, including Budget Users, Commitment Making Officials (PPK SKPD), Technical Activity Implementing Officials (PPTK), Revenue Treasurers, Expenditure Treasurers, Authorized Budget Users, Assistant Revenue Treasurers, Assistant Expenditure Treasurers, and SIPD Operators, resulting in a total of 230 respondents. This study utilizes primary data collected through questionnaires. A five-point Likert scale was used to measure respondents' perceptions by expressing agreement or disagreement with a series of statements.

The data analysis method applies descriptive statistics using the SPSS software. Descriptive statistical analysis was used to examine questionnaire data related to respondent information, including gender, age, position, educational background, and length of service. The classical assumption tests consist of normality, multicollinearity, and heteroscedasticity tests. Multiple linear regression analysis was conducted to determine the extent of influence of independent variables on the dependent variable, while Moderation Regression Analysis (MRA) was employed to test whether the addition of the moderating variable—SIPD implementation could strengthen the efficiency of regional financial management, ultimately leading to improved regional financial performance.

RESULTS AND DISCUSSION

Descriptive Analysis

This data was obtained from questionnaire responses by 40 Regional Apparatus Organizations (OPD) in Central Sulawesi Province. The following are the respondent data used in this study:

Table 1.
Respondent Description

Characteristics		Frequency	Percentage
Gender	Male	127	55%
	Female	103	45%
	Total	230	100%
Age	20 - 30 Tahun	20	9%
	31 - 40 Tahun	88	38%
	41 - 50 Tahun	92	40%
	> 50 Tahun	30	13%
	Total	230	100%
Position	Budget User	23	10%
	Commitment-Making Official (PPK SKPD)	36	16%
	Technical Activity Implementation Officer (PPTK)	40	17%
	Revenue Treasurer	30	13%
	Expenditure Treasurer	32	14%
	Proxy of Budget User	29	13%
	Assistant Revenue Treasurer	2	1%
	Assistant Expenditure Treasurer	4	2%
	SIPD Operator	34	15%
	Total	230	100%

Education	SMA	45	20%
	D3/S1	118	51%
	S2	66	29%
	S3	1	0%
	Total	230	100%

Source: *Questionnaire Output (Processed by Researcher, 2025)*

Based on the respondent description results, the majority of OPD employees participating in this study are male (55%), with the dominant age group between 41–50 years (40%), indicating that most respondents are within a productive and experienced age range. In terms of position, the respondents are dominated by technical activity implementation officers (PPTK) at 17%, followed by commitment-making officials (PPK) at 16%, and SIPD operators at 15%, signifying their direct involvement in regional financial management and information system utilization. The respondents' education level is generally high, with the majority holding a Diploma/Bachelor's degree (51%) and a Master's degree (29%), showing adequate academic capacity to understand research instruments related to efficiency and SIPD implementation.

Data Instrument Testing

Validity Test

The validity test aims to ensure that the instrument accurately measures the research variables. The results show that all variables have an *r-count* value > 0.129 and *Sig.* < 0.05 , thus declared valid and suitable for analysis. The validity test results are presented as follows:

Table 2.

Validity Test Results

Variabel	Pearson Correlation	Sig. (2-tailed)	r Tabel (N=230; $\alpha=0,05$)	Information
Financial Management Efficiency (X)	1	–	0,129	Valid
SIPD Implementation (Y)	0,631**	0,000	0,129	Valid
Regional Financial Performance (Z)	0,584**	0,000	0,129	Valid

Source: *SPSS Output (Processed by Researcher, 2025)*

Based on Table 2, all research variables have *r-count* values greater than *r-table* (0.129) with a significance level of $0.000 < 0.05$, indicating that all variables financial management efficiency, SIPD implementation, and regional financial performance are valid and can be used in further analysis.

Reliability Test

Based on SPSS output, the reliability test results show a Cronbach's Alpha value of 0.859 with 34 questionnaire items. Since Cronbach's Alpha exceeds 0.70, the research instrument is declared reliable, meaning that all question items possess good internal consistency and are trustworthy for subsequent analysis, as shown in the following table:

Table 3.
Reliability Test Results

Description	Value
Number of Respondents (N)	230
Number of Items	34
Cronbach's Alpha	0.859
Reliability Criterion	≥ 0.70
Conclusion	Reliable

Source: SPSS Output (Processed by Researcher, 2025)

Classical Assumption Tests

Normality Test

The purpose of the normality test is to ensure that the residual data are normally distributed so that the regression analysis results can be interpreted validly and reliably.

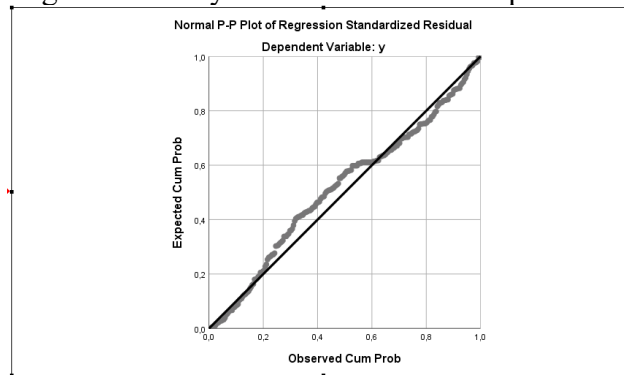


Figure 1.

Normality Test Result (Normal P–P Plot)

Based on the Normal P–P Plot graph, the residual points are distributed around and follow the diagonal line, indicating that the residual data are normally distributed. This means the regression model meets the normality assumption, making the regression analysis results reliable.

Multicollinearity Test

The following table presents the multicollinearity test results:

Table 4.

Multicollinearity Test Results

Variable	Tolerance	VIF	Criteria	Description
x	0,659	1,518	Tolerance > 0,10 dan VIF < 10	No multicollinearity
z	0,659	1,518	Tolerance > 0,10 dan VIF < 10	No multicollinearity

Source: SPSS Output (Processed by Researcher, 2025)

The Tolerance values for both variables are greater than 0.10, and the VIF values are below 10, indicating no multicollinearity between the independent variables in the regression model.

Heteroscedasticity Test

Table 8.
Heteroscedasticity Test Result

Variable	Sig.	Criterion	Description
X	> 0.05	No heteroscedasticity	Homoscedastic
Z	> 0.05	No heteroscedasticity	Homoscedastic

Source: SPSS Output (Processed by Researcher, 2025)

Based on the heteroscedasticity test results (both scatterplot and Glejser test), the significance values of all variables are above 0.05, and the scatterplot points are randomly distributed above and below the zero axis. This indicates that no heteroscedasticity occurred, and thus, the regression model fulfills classical assumptions and is suitable for analysis.

Hypothesis Testing

Hypothesis testing aims to determine the relationship and influence among variables in the research model regional financial management efficiency (X), SIPD implementation (Y), and regional financial performance (Z). The tests were conducted using multiple linear regression and moderation analysis with SPSS assistance.

Table 9.
Multiple Linear Regression Results

Independent Variable	Unstandardized Coefficients	Std. Error	Coefficients	t	Sig.	Description
(Constant)	3.708	1.704	–	2.175	0.031	–
Financial Management Efficiency (X)	0.378	0.048	0.480	7.854	0.000	Significant
SIPD Implementation (Z)	0.207	0.049	0.259	4.247	0.000	Significant

Source: SPSS Output (Processed by Researcher, 2025)

The regression results show a coefficient value (B) of 0.378, t-count = 7.854, and significance (Sig.) = 0.000 < 0.05. The positive coefficient indicates that higher financial management efficiency leads to better regional financial performance. Since the significance value is below 0.05, the first hypothesis (H1) is accepted. Thus, financial management efficiency positively and significantly affects regional financial performance, suggesting that efficient budget management contributes substantially to improving local government financial outcomes.

Furthermore, the analysis shows a coefficient value (B) of 0.207, t-count = 4.247, and Sig. = 0.000 < 0.05, indicating that SIPD implementation has a positive and significant effect on regional financial performance. The more optimal the SIPD implementation, the better the financial performance achieved. Therefore, the second hypothesis (H2) is accepted.

Table 10.
Moderation Regression Analysis (MRA)

Variable	B	Std. Error	Beta	t	Sig.	Description
(Constant)	32.620	8.451	–	3.860	0.000	–

Financial Management Efficiency (X)	-0.333	0.209	-0.422	-1.591	0.113	Not Significant
SIPD Implementation (Z)	-0.523	0.214	-0.656	-2.438	0.016	Significant
Interaction X*Z	0.018	0.005	1.625	3.489	0.001	Significant (Moderation Occurs)

Source: SPSS Output (Processed by Researcher, 2025)

The moderation test results show that SIPD implementation moderates the relationship between financial management efficiency and regional financial performance. This is evidenced by the interaction term (X*Z) with a significance value of $0.001 < 0.05$, indicating a significant moderation effect. The positive coefficient ($B = 0.018$) implies that higher SIPD implementation strengthens the influence of financial management efficiency on regional financial performance. Hence, SIPD enhances the relationship between efficiency and financial outcomes, demonstrating that an integrated information system improves financial management effectiveness and accountability within OPDs.

The findings reveal that regional financial management efficiency positively and significantly influences regional financial performance, implying that the more efficiently local governments manage budgets, the better their financial performance. Efficiency in public resource utilization reflects the government’s ability to fulfill fiscal responsibilities effectively and accountably, as explained by agency theory (Ulya & Astuti, 2018). These results align with the studies of (Permatasari & Trisnaningsih, 2022) and (Tatroman et al., 2023), which demonstrated that financial efficiency is a key determinant in improving local government financial performance.

Additionally, the study found that SIPD implementation positively and significantly affects regional financial performance. This means that better SIPD application leads to higher quality in financial management. SIPD plays a crucial role in ensuring transparency and accountability through integrated digitalized financial processes, as mandated by Ministry of Home Affairs Regulation No. 70 of 2019. This finding supports (Hindriani et al., 2020); (Vitriana et al., 2022) and Paat & Saleh (2023), who asserted that online financial information systems improve reporting accuracy and bureaucratic efficiency, thereby enhancing regional financial performance.

Moreover, the moderation test results indicate that SIPD implementation strengthens the relationship between financial management efficiency and regional financial performance. The significant interaction effect demonstrates that when SIPD is optimally applied, the impact of efficiency on financial performance becomes stronger. This finding reinforces agency theory, emphasizing the importance of internal control systems in reducing information asymmetry between local governments and the public. The results are consistent with the studies of Fauziah et al. (2024) and Paat & Saleh (2023), which stated that effective financial information systems strengthen the link between efficiency and organizational performance. Therefore, SIPD not only directly influences financial performance but also acts as a moderating factor that enhances the effectiveness of efficiency in improving regional financial outcomes.

CONCLUSION

Based on the results of the analysis, it can be concluded that the efficiency of regional financial management and the implementation of the Regional Government Information System (SIPD) have a positive and significant effect on regional financial performance. The implementation of SIPD also strengthens the relationship between financial management efficiency and financial performance, emphasizing the importance of information technology in achieving efficient, transparent, and accountable regional financial governance. The practical implications of this study indicate that local governments need to enhance efficiency in budget planning and implementation through the optimization of SIPD and improvement of staff competencies, while policymakers can use these findings as a basis for expanding public financial digitalization. Academically, this study contributes to the literature on the role of information systems in improving public sector financial performance. However, this research is limited to the geographical scope of Central Sulawesi Province, relies solely on a quantitative approach, and employs a cross-sectional analysis that does not capture changes over time. Therefore, future research is recommended to expand the regional scope, adopt mixed methods to explore non-technical factors such as organizational culture and leadership, and encourage local governments to continuously enhance capacity and oversight in SIPD implementation so that the system serves not only administrative purposes but also as a strategic instrument in regional financial decision-making.

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