

TRANSPARENCY MODERATION IN SIPD TOWARDS GOVERNMENT PERFORMANCE IN MEDAN PETISAH DISTRICT

Gloria Natasia Sitompul¹, Ananda Vadhila², M Rafa Alfarizi³, Claudia Nazmal Putri⁴, Irawan^{5,*}

^{1,2,3,4,5} Faculty of Social Sciences, Accounting, Panca Budi Development University Medan, Indonesia

E-mail: ¹gloriasibarani31@gmail.com, ²anandavadhila@gmail.com, ³alfarizirafa894@gmail.com,

⁴claudianazmalputri@gmail.com, ^{5,*}irawan@dosen.pancabudi.ac.id

E-mail Corresponding Author: irawan@dosen.pancabudi.ac.id

Abstract

Government performance plays a crucial role in achieving effective, efficient, and accountable governance. Its implementation still faces various administrative challenges, particularly those related to the utilization of the Regional Government Information System (SIPD) and the level of public information transparency. The quality of local government management is improved through data integration, accountability, and information transparency, designed as strategic instruments within the SIPD. Medan Petisah District has not yet had a significant and optimal impact on improving financial performance. This conceptual article aims to evaluate the role of transparency as a moderating variable and the relationship between SIPD implementation and government performance in Medan Petisah District. The issues evaluated include limited capacity in operating the SIPD, its implications for government performance, and the low level of public information transparency. The method used is a conceptual approach through literature studies on theories, various previous research results, and relevant government and regulatory information, transparency, and public sector performance. The expected results of this article are that transparency is able to moderate and strengthen the influence of the implementation of SIPD on improving the performance of the District Government which is compiled in a conceptual framework, and optimal transparency is expected to encourage the effective use of SIPD so that it has an impact on efficiency, accountability, and quality of public services in Medan Petisah District.

Keywords: *Regional Government Information System (SIPD); Transparency; Government Performance; Governance; Sub-district Government.*

I. INTRODUCTION

Financial performance at the sub-district level plays a crucial role in assessing the effectiveness, efficiency, and accountability of government administration. As the leading government unit, sub-districts play a direct role in implementing regional development programs, providing quality public services, and managing transparent and accountable government administration (Hasanuddin et al., 2024), (Yusman & Noor, 2025). Sub-district officials are required to possess the skills to make decisions and manage data based on information technology to support improved sub-district government performance (Salindeho, 2021), (Farhan et al., 2025).

The development of the Regional Government Information System (SIPD) is essentially a strategic step by the government to transform governance

through data integration and strengthened accountability. SIPD is designed to simplify information management, strengthen inter-agency coordination, and improve the quality of public services (Napitupulu et al., 2024). Along with the development of information technology, SIPD is expected to encourage the creation of more effective, efficient, transparent, and accountable governance, while also supporting data-driven decision-making within local governments, including at the sub-district level (Kalesaran & Sumual, 2025).

In practice, the implementation of SIPD in the field presents various challenges, including in Medan Petisah District (Khairunnisa Pasaribu & Nasution, 2025). SIPD tends to be used only as an administrative reporting tool, while its role as an analytical and strategic decision-making instrument

has not been optimally implemented. Obstacles such as a lack of understanding among officials, low digital literacy, limited human resource competency, and minimal adaptation to information technology are key inhibiting factors in optimizing SIPD utilization. This condition has resulted in SIPD's less than optimal contribution to improving sub-district government performance and the quality of public services. In addition to system and human resource factors, transparency is a key element in optimizing SIPD implementation. The level of public information disclosure can strengthen the relationship between SIPD utilization and government performance, as transparency encourages accountability, minimizes administrative errors, and increases public trust in the government. Although SIPD produces government data and information, open access to information to the public is still limited, resulting in the public oversight function not being optimally implemented. The absence of transparency has the potential to make SIPD merely a passive digital archive that does not encourage increased government accountability and performance (Pituring Sih et al., 2025).

Various studies have examined the role of SIPD and transparency in improving government performance. However, a research gap remains (Dinata et al., 2025). Previous studies have generally focused on the direct influence of SIPD on government performance, without in-depth examination of the role of transparency as a moderating variable, particularly at the sub-district level. Other research specifically examining Padangsidempuan District is still relatively limited, resulting in an inadequate understanding of the interaction between the use of Regional Government Information Systems, information transparency, and government performance in the region (Sabani, 2020).

Another problem identified is the ineffectiveness of the government performance accountability system, characterized by incomplete achievement of performance targets, a lack of integration of processes and procedures, and limited adaptation of officials to the use of information technology and human resource capacity building. Although the development of government information systems demonstrates that the effectiveness and utilization of information technology play a significant role in increasing transparency and accountability in government performance, various challenges such as limited technological infrastructure and human resources remain obstacles to its

implementation. The main problems in this study lie in the gap between the conceptual objectives of the SIPD and its practical implementation at the sub-district level, the sub-optimal use of SIPD data for performance analysis and public service improvement, low performance capacity, and the lack of integration of public transparency in strengthening the relationship between SIPD implementation and sub-district government performance. These conditions encourage the need for a more in-depth study of the role of transparency as a moderating variable in the relationship between the implementation of the Regional Government Information System and government performance in Medan Petisah District.

II. RESEARCH METHODOLOGY

A. TAM Regional Government Information System (SIPD)

The application of information technology in government is a strategic effort to improve the effectiveness and accountability of regional government administration. One form of this technology implementation is the Regional Government Information System (SIPD), developed by the Ministry of Home Affairs as an integrated system to support the planning, budgeting, implementation, reporting, and monitoring of regional development and finance. The success of SIPD implementation is greatly influenced by the level of acceptance and use of the system by regional government officials. The Technology Acceptance Model (TAM) is a theoretical model widely used to explain user acceptance behavior towards information technology. This model was developed by Davis (1989) and emphasizes two main constructs: Perceived Usefulness and Perceived Ease of Use. Perceived Usefulness is defined as the level of user confidence that using a system will improve their job performance, while Perceived Ease of Use refers to the extent to which users believe the system is easy to use and does not require significant effort.

In the context of SIPD, Perceived Usefulness relates to the benefits perceived by local government officials in carrying out administrative and financial management tasks. SIPD helps improve data accuracy, accelerates the reporting process, and supports transparency and accountability in regional financial management. If users perceive that SIPD can improve work performance and efficiency, then positive attitudes towards system use will increase.

Perceived Ease of Use also relates to the ease with which officials can understand and operate SIPD. A system with a clear interface, systematic workflow, and adequate technical support will facilitate users in operating the system. This ease of use is a crucial factor, especially for officials with limited mastery of information technology.

Previous studies have shown that TAM is relevant for assessing the acceptance of information systems in the public sector, including SIPD. Perceived usefulness and ease of use have been shown to significantly influence system usage intentions and behavior. Therefore, TAM can be used as a conceptual framework to analyze factors influencing the success of SIPD implementation in local governments.

B. Government Performance

Government performance in implementing the Regional Government Information System is the result of the integration of e-government performance theory, information system success model, and good governance theory. The Regional Government Information System not only functions as an administrative tool, but also as a lever for regional government performance through efficiency, accountability, and transparency of government data. The ability of government officials to achieve organizational goals, fulfill public services, and apply the principles of efficiency and accountability can be defined as government performance. In the theory of public organization performance, stated that performance is influenced by structural and procedural factors, as well as technological capabilities and human resources in carrying out government functions. In terms of responsiveness, village government officials are considered quite good at responding to community needs, complaints, and input. This indicates that officials are aware of the need to respond to community aspirations, although this has not been accompanied by overall performance improvements.

Public service fairness, states that services have generally been implemented fairly, although some indications of injustice were still found, such as in the process of allocating health cards. Based on these findings, it can be concluded that the implementation of the principle of accountability for the performance of village government officials still requires improvement, especially in the aspects of efficiency and effectiveness, so that the implementation of

public services can run more accountably and in accordance with community expectations.

C. Regional Government Information System (SIPD)

Conceptually, SIPD is the application of a management information system in the public sector that functions as a decision-making tool for local governments. Through SIPD, financial and non-financial data can be systematically processed to produce accurate, relevant, and timely information. This information serves as the basis for regional leaders in formulating policies and evaluating the performance of regional apparatus organizations. SIPD implementation also plays a crucial role in supporting the principles of good governance, particularly transparency and accountability. With SIPD, planning and budgeting processes can be conducted openly and well-documented, thereby minimizing the potential for irregularities and increasing public trust. Furthermore, SIPD helps create alignment between planning, budgeting, and reporting of local government performance. The success of SIPD implementation is not only determined by technological aspects, but also influenced by the readiness of human resources, management support, and adequate information technology infrastructure. Local government officials are required to have the ability to operate the system and understand applicable regulations. Therefore, SIPD is not only seen as a technological tool, but also as part of bureaucratic reform efforts to improve the performance and governance of local government.

D. Transparency as a Moderating Variable

Public transparency is not just about opening data, but also about creating an oversight mechanism that allows the public and internal parties to evaluate the running of government. The public accountability framework from Romzek, BS, & Dubnick, MJ (1987), states that transparency serves to strengthen the link between resources (input) and work results (output). This study places transparency as a moderating variable, the reason being that the sophistication of Regional Government Information System technology will not contribute optimally to performance if it is not accompanied by a culture of openness, without transparency, data in the Regional Government Information System risks becoming only a passive digital archive.

A well-designed information system can increase data transparency and accelerate decision-making processes in public sector organizations. Implementing such a system serves not only as an administrative tool but also as a control mechanism that ensures all financial activities are publicly accountable. The articulation between Information technology and the apparatus' commitment to the principle of transparency are determining factors in realizing effective governance. Therefore, strengthening government information systems such as SIPD can be considered a strategic step to improve efficiency, public trust, and overall bureaucratic performance.

Digitalization of governance enables administrative processes to be more efficient, accurate, and auditable in real time. The Regional Government Information System (SIPD) plays a crucial role in ensuring that all budgetary activities can be transparently monitored by various stakeholders, within the context of regional financial management, a digital system. The successful implementation of this system is heavily influenced by the readiness of human resources and an organizational culture that supports information transparency. Transparency is a key prerequisite for realizing accountable and performance-oriented regional governance through strengthening the capacity of the apparatus and commitment.

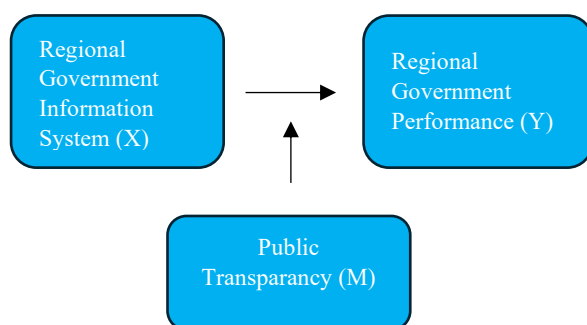


Figure 1. Conceptual Framework

Figure 1 shows:

Moderating Variable: Public Transparency
Independent Variable (X): Implementation of SIPD
Dependent Variable (Y): Regional Government Performance
Conceptual Hypothesis

Based on the results of the synthesis of theory and findings from previous research, the conceptual hypothesis proposed in this research is as follows:

H1:The implementation of the Regional Government Information System (X1) has a positive effect on public transparency (X2).

H2:Public transparency (X2) has a positive effect on local government performance (Y).

H3:The implementation of the Regional Government Information System (X1) has a positive effect on regional government performance (Y) through public transparency (X2) as a mediating variable.

III. RESULTS AND DISCUSSION

This study uses a quantitative approach that aims to empirically test the effect of the implementation of the Regional Government Information System on the performance of the Medan Petisah District government with public transparency as a moderating variable. The quantitative approach was chosen because this study focuses on testing the causal relationship between variables objectively and measurably through statistical analysis, in line with the research problem which shows that the implementation of the Regional Government Information System has not fully provided an optimal impact on improving the performance of the district government and there is still a need to strengthen transparency in the administration of government.

This research is explanatory in nature, designed to explain the causal relationship between the implementation of the Regional Government Information System, public transparency, and sub-district government performance. The focus of the research is directed at examining the extent to which the implementation of the Regional Government Information System can improve government performance and how public transparency influences the strength of this relationship. Therefore, this research design is systematically structured to answer the research problem and achieve the research objectives as outlined in Chapter I.

The analytical method used in this study is Moderated Regression Analysis. This method was chosen based on the research need to examine the role of public transparency as a variable capable of strengthening or weakening the influence of the implementation of the Regional Government Information System on sub-district government performance. Through this approach, the study not only examines the direct effect of the implementation of the Regional Government Information System on government performance but also examines the interaction effect between the implementation of the Regional Government Information System and public transparency on sub-district government performance.

This research was conducted at the Medan Petisah District Government, Medan City, which has

implemented a Regional Government Information System to support government administration processes. The research population included all sub-district government officials involved in the planning, budgeting, administration, and government reporting processes related to the use of the Regional Government Information System. The sample selection was conducted using a purposive sampling technique, with the consideration that respondents were officials who directly used the Regional Government Information System and had an understanding of the mechanisms of public information disclosure within the sub-district government.

The data used in this study are primary data obtained directly from respondents through questionnaire distribution. The research instrument was compiled based on variable indicators referring to e-government theory, the information system success model, the principles of good governance, and public sector performance theory as described in Chapter II. The questionnaire was constructed using a five-level Likert scale to measure respondents' perceptions of the implementation of the Regional Government Information System, the level of public transparency, and the performance of the sub-district government.

Prior to hypothesis testing, the research data was first quality-checked through validity and reliability tests to ensure that the research instruments accurately and consistently measured the research variables. Descriptive statistical analysis was then performed to provide a general overview of the respondents' characteristics and the tendencies of their responses to each research variable. To meet the requirements of regression analysis, the data were also tested using classical assumption tests, including normality, multicollinearity, and heteroscedasticity.

Hypothesis testing was conducted using Moderated Regression Analysis by including the interaction variable between the implementation of the Regional Government Information System and public transparency into the regression model. The analytical model used in this study is formulated as follows:

$$Y = \alpha + \beta_1 X + \beta_2 Z + \beta_3 (XZ) + \varepsilon \quad (1)$$

In this model, sub-district government performance is positioned as the dependent variable, the implementation of the Regional Government Information System as the independent variable, public transparency as the moderating variable, and the interaction between the implementation of the Regional Government Information System and public transparency as the interaction variable. Public transparency is declared to play a role as a moderating variable if the regression coefficient of the interaction variable shows statistically significant results. The

results of this analysis are expected to be able to provide empirical evidence regarding the role of public transparency in strengthening the influence of the implementation of the Regional Government Information System on sub-district government performance, in accordance with the research objectives formulated in Chapter I.

To ensure uniformity and clarity in measuring research variables, operational definitions of the variables are presented in the following table.

Table 1. Definition of Operational Research Variables

VARIABLES	OPERATIONAL DEFINITION	INDICATORS	SCALE
Implementation of Regional Government Information System (X)	The level of utilization of the Regional Government Information System by Medan Petisah District officials in supporting the planning, budgeting, administration and government reporting processes.	System quality, information quality, ease of use, data integration, system support	Likert
Public transparency (M)	The level of openness of the sub-district government in providing and conveying government information to the public.	Access to information, clarity of information, completeness of information, budget transparency, ease of obtaining information	Likert
District government performance (Y)	The level of performance achievement of Medan Petisah	Work efficiency, program effectiveness, accountability	Likert

District apparatus in carrying out government duties and public services.	lity, service quality, responsive ness
---	--

IV. CONCLUSION

A. Implementation of SIPD in Medan Petisah District

The implementation of the Regional Government Information System (SIPD) in Medan Petisah District is part of bureaucratic reform and the digitalization of regional governance. The Regional Government Information System is designed to integrate planning, budgeting, administration, and performance reporting processes into a single integrated system. This integration aims to improve administrative efficiency, data accuracy, and the quality of decision-making based on reliable information. Based on a review of the literature and related regulations, the implementation of the Regional Government Information System at the sub-district level still faces several obstacles. Limited apparatus competency, adaptation to technology, and low utilization of Regional Government Information System data as a basis for program evaluation and planning have resulted in this system being used only for fulfilling administrative and reporting obligations. In Medan Petisah District, these conditions have resulted in the Regional Government Information System's impact on improving sub-district government performance being less than optimal, particularly in aspects of data-driven planning and program performance evaluation. Based on the Information System Success Model, the success of the Regional Government Information System is determined by the quality of the system, the quality of information, and the quality of service. These three aspects are interrelated and will only provide maximum benefits if supported by adequate human resource capacity. Thus, the success of implementing the Regional Government Information System is not only technical, but also depends on the ability of the apparatus to utilize the system as a strategic decision-making tool.

B. District Government Performance from the SIPD Perspective

In this study, sub-district government performance is understood as the ability of the apparatus to achieve organizational goals, provide quality public services, and manage resources efficiently, effectively, and accountably. Based on the theory of public organization performance (Van Dooren, Bouckaert, & Halligan, 2015), performance is influenced by structural, procedural, technological, and human resource factors. Conceptually, the implementation of the Regional Government Information System contributes to increased efficiency by accelerating administrative processes, reducing data duplication, and simplifying performance reporting. In terms of effectiveness, the Regional Government Information System provides integrated and real-time data that should be utilized in program planning and policy evaluation. However, the literature shows that the availability of this data has not been fully followed by the analytical ability of the apparatus in utilizing the information for strategic decision-making at the sub-district level.

Government performance is also reflected in responsiveness and fairness in public services. Public Government Information Systems have the potential to increase the responsiveness of government officials by providing prompt and accurate information related to public needs. However, without adequate information transparency, this potential tends to be limited to the internal scope of the organization, thus not fully impacting public satisfaction and trust.

C. Transparency as a Moderating Variable in the Relationship between SIPD and Government Performance

Public transparency is positioned as a moderating variable that influences the strength of the relationship between the implementation of Public Government Information Systems and sub-district government performance. Based on Romzek and Dubnick's (1987) public accountability framework, transparency functions as a monitoring mechanism that connects government input, process, and output. Ensure that the data and information generated by the Regional Government Information System is not only available internally, but can also be accessed and monitored by the public.

Through this mechanism, transparency strengthens the influence of the Regional

Government Information System on government performance by increasing pressure on apparatus accountability, encouraging work discipline, and strengthening results-orientedness. When budget information, programs, and performance achievements are published openly, apparatus are encouraged to utilize the Regional Government Information System more optimally and responsibly. In the context of Medan Petisah District, a high level of transparency is a determining factor in whether the implementation of the Regional Government Information System truly contributes to improved performance or merely serves as a digital administrative tool.

D. Hypothesis Discussion

The first hypothesis (H1) states that the implementation of the Regional Government Information System has a positive effect on the performance of local governments in Medan Petisah District. Theoretically, this hypothesis is supported by e-government theory and the Information System Success Model, which emphasizes that integrated information systems can improve the efficiency and effectiveness of government administration. Who stated that the Public Government Information System has a significant positive effect on the effectiveness and accountability of sub-district performance, especially in the reporting and budget planning processes.

The second hypothesis (H2) states that public transparency moderates the effect of the implementation of the Regional Government Information System on local government performance. Transparency strengthens this relationship by creating a public oversight and control mechanism that encourages official accountability. Without transparency, the effectiveness of the SIPD tends to be limited to meeting administrative needs and has not significantly impacted substantive performance improvements.

The third hypothesis (H3) states that the simultaneous implementation of the Regional Government Information System and public transparency significantly impact local government performance in Medan Petisah District. Synergy between information technology and information transparency is a key prerequisite for improving government performance at the sub-district level, where the Regional Government Information System provides data infrastructure, and transparency ensures the accountable and public-interest utilization of that

data.

E. Implications for Sub-district Governance

The results of this conceptual analysis confirm that improving sub-district government performance cannot be achieved solely through the application of information technology. The Regional Government Information System requires enhanced transparency, increased human resource capacity, and leadership commitment to building a data-driven and accountable work culture.

For Medan Petisah District, optimizing the Regional Government Information System as a strategic instrument in policy planning and evaluation, coupled with public information transparency, is crucial for improving administrative efficiency, public service quality, and public trust. However, this study is conceptual in nature; further empirical research is needed to quantitatively test the relationship between the implementation of the Regional Government Information System, public transparency, and sub-district government performance.

V. RECOMMENDATIONS

The results of this study indicate that improving sub-district government performance is not only determined by the existence of an information system, but is also greatly influenced by the capacity of the apparatus in managing and utilizing the information generated by the SIPD. Limited human resource competency and low adaptability to information technology are the main factors hindering the optimization of SIPD implementation. The implementation of the Regional Government Information System (SIPD) conceptually has a strategic role in improving sub-district government performance, particularly in supporting administrative efficiency, planning and reporting effectiveness, and accountability in regional financial management. Therefore, strengthening the capacity of the apparatus through continuous training and increasing digital literacy are important prerequisites for the effective use of government information systems.

This study confirms that public transparency acts as a moderating variable, strengthening the relationship between SIPD implementation and government performance. Transparency encourages increased accountability, strengthens public oversight, and motivates officials to utilize SIPD more optimally and responsibly. Without

transparency, SIPD has the potential to become a passive digital archive that does not significantly contribute to improving government performance. Thus, the synergy between the implementation of SIPD, public transparency, increased capacity of the apparatus, and the commitment of regional leaders is a key prerequisite for realizing good governance. Further research is recommended to conduct empirical testing, using both quantitative and mixed methods approaches, to directly test the effect of SIPD implementation on government performance with transparency as a moderating variable, so that the conceptual findings in this study can be strengthened with more comprehensive empirical evidence.

VI. REFERENCES

- Dinata, R. R., Achmad, M., Maryani, D., & Sartika, I. (2025). Evaluation Of Governance Of Local Government Information System In Ministry Of Home Affairs Of The Republic Of Indonesia. *Jurnal Syntax Transformation*, 6(6), 110–127. <https://doi.org/10.46799/jst.v6i6.1081>
- Farhan, M., Hutagalung, S. M. H. S. M., Rasyid, M. A. R. M. A., Shafa, D. I. S. D. I., & Supiyandi, S. (2025). Real-Time Object Color Detection Using the HSV Method in Python. *Prosiding Nasional Ilmu Komputer, Sosial Sains, Teknik Dan Multi-Disiplin Ilmu (IKOSSTEMI)*, 1, 1–5. <https://proceeding.raskhamedia.or.id/index.php/ikosstemi/article/view/32>
- Hasanuddin, M., Khodijah, S., & Rizki, C. A. (2024). Analysis of the Role of Social Media in Shaping Public Opinion on Social Issues. *Journal of Computer Science Artificial Intelligence and Communications*, 1(1), 7–11.
- Kalesaran, R. J., & Sumual, S. D. (2025). Local Government and Educational Leadership: A SWOT Approach to Sub-District Educational Management in Manado City. *International Journal of Information Technology and Education*, 4(2), 98–104.
- Khairunnisa Pasaribu, S., & Nasution, J. (2025). the Influence of E-Commerce, Sharia Financial Inclusion, and Halal Certification on the Development of Culinary Msmes in Medan City. *International Journal Of Economics Social And Technology*, 20(2), 2685–6441.
- Napitupulu, D. L., Bacin, M. R. H., Lubis, T. A., Juanda, R. A., & Sari, E. N. (2024). Implementation And Effectiveness Of Local Government Information Systems (SIPD) In Indonesia: A Literature Study. *Medan International Economics and Business*, 2(1), 1901–1919.
- Pituringasih, E., Sokarina, A., & Asmony, T. (2025). *New Applied Studies in Management*, Economics & Accounting Implementation of local government information systems as a mediator determinant of financial reporting quality in regional organizations. *New Applied Studies in Management, Economics & Accounting*, 8(1), 81–96.
- Sabani, A. (2020). Investigating the influence of transparency on the adoption of e-Government in Indonesia. *Journal of Science and Technology Policy Management*, 12(2), 236–255. <https://doi.org/10.1108/JSTPM-03-2020-0046>
- Salindeho, A. (2021). The Role of Regional Government Information System (SIPD) on the Sub-District of Aertembaga's Financial Accountability. *Indonesian Journal of Multidisciplinary Science*, 1(3), 150–153. <https://doi.org/10.55324/ijoms.v1i3.26>
- Yusman, Y., & Noor, N. A. Z. M. (2025). Understanding Adolescent Online Sexual Patterns Through Big Data Analysis. *Proceedings of The International Conference on Computer Science, Engineering, Social Science, and Multi-Disciplinary Studies*, 1, 1–7.