

Village Management Information System (SIMDes): A Digital Strategy for Strength-ening Village Governance toward Transparency and Accountability

Galih Supraja

Abstract

This conceptual paper explores the Village Management Information System (SIMDes) as an innovative digital tool to improve the quality of local governance at the village level in Indonesia. Despite being the lowest administrative unit, village governments are responsible for managing increasingly complex development and financial activities. SIMDes is expected to increase transparency, accountability, and administrative efficiency in village management. By integrating theories of good governance and management information systems, this paper provides a theoretical framework for understanding the role of SIMDes in improving village governance. The paper concludes that successful implementation of SIMDes depends on technological readiness, human resources capacity, and policy support at the local and national levels. Recommendations include digital capacity building, infrastructure enhancement, and integrated policy frameworks to support the institutionalization of SIMDes.

Keywords: SIMDes, E-Government, Digital Village, Public Administration, Good Governance, Accountability, Transparency.

Galih Supraja

Management Study Program, Universitas Pembangunan Panca Budi, Indonesia

e-mail: galih@dosen.pancabudi.ac.id

2nd International Conference on the Epicentrum of Economic Global Framework (ICEEGLOF)
Theme: Navigating The Future: Business and Social Paradigms in a Transformative Era.
<https://proceeding.pancabudi.ac.id/index.php/ICEEGLOF>

Introduction

Village government as the leading unit in the national government structure has a strategic role in organizing development, public services, and community empowerment. Along with the demands for increased transparency, accountability, and efficiency in the implementation of village government, there is a need for the use of information technology to support the administration and decision-making process. In this context, the Village Management Information System (SIMDes) is present as an innovative solution to strengthen village governance based on data and technology (Arifin & Nugroho, 2020).

SIMDes is an information technology-based system designed to manage various aspects of village government administration, starting from population data, general administration, village financial management, to development planning and reporting (Setiawan, 2021). The implementation of SIMDes aims to improve the efficiency of village apparatus work, accelerate access to information, and encourage openness in managing village budgets and assets. Furthermore, this system supports the integration of data needed in the preparation of the village medium-term development plan (RPJMDes) and the village government work plan (RKPDDes).

According to the principles of good governance, the use of information systems such as SIMDes can strengthen the values of transparency, accountability, participation, and responsiveness (Wicaksono & Hidayat, 2019). With the availability of valid and up-to-date data, the decision-making process can be more focused and evidence-based (evidence-based policy). In addition, the community also has a greater opportunity to access information about village programs and activities, so that social control over the performance of the village government can run more effectively. However, the effectiveness of SIMDes implementation is not free from various challenges that surround it. Some villages still face limitations in technological infrastructure, inadequate human resource capacity in operating the system, and limited budget availability for system maintenance and development (Prasetyo, 2020). On the other hand, the sustainability of SIMDes use is also influenced by the commitment of village leaders and support from local governments, especially in terms of training, coaching, and system integration with policies at the district/city level.

Thus, SIMDes is not just an administrative tool, but part of a grand strategy in realizing modern, transparent, and participatory village governance (Syamsuddin, 2022). To achieve this goal, synergy is needed between village officials, local governments, and the community in encouraging inclusive and sustainable digital transformation at the village level.

Literature Review

A. Theoretical Framework

Good governance emphasizes principles such as transparency, accountability, participation, effectiveness, efficiency, and rule of law (Smeding, 1997). In the context of village administration, these principles provide a framework for assessing the quality of governance, especially in budget management and public service provision. According to Laudon & Laudon (2016), a management information system is designed to provide information needed by managers in decision-making processes. In the village context, SIMDes represents an application of such systems to provide reliable data and information that support both operational and strategic decision-making.

The concept of good governance emphasizes several core principles: transparency, accountability, effectiveness, efficiency, participation, and rule of law (Keping, 2018). These principles serve as normative benchmarks for public administration reform. Technology—especially digital platforms like SIMDes—can act as enablers of good governance by automating processes, publishing information online, and enabling real-time monitoring of public services (Rotberg, 2014). In the context of village governance, these principles are particularly relevant given the need to empower citizens and strengthen bottom-up accountability mechanisms.

B. SIMDes as a Village Governance Instrument

A Management Information System (MIS) is a set of components that collect, process, store, and disseminate information to support decision-making and coordination within an organization (Yuliana & Santoso, 2021). In the public sector, MIS can facilitate improved planning, control, and service delivery by transforming manual processes into digital workflows. MIS implementation is especially critical in resource-constrained environments such as village administrations, where information asymmetry and bureaucratic inefficiency are often prevalent.

SIMDes functions as an information management hub for villages, encompassing modules such as population data, village finance, assets, correspondence, and development monitoring. Its implementation offers several advantages (Mulyadi & Sari, 2020):

- a. Improved administrative efficiency through digital documentation and workflows;
- b. Enhanced accountability by enabling traceability of financial transactions and development programs;
- c. Increased transparency through open access to data for stakeholders and the public;
- d. Greater community participation by providing real-time access to public information.

Research conducted by Susanto (2021) and Nugroho & Rohman (2018) found that villages utilizing SIMDes reported faster service delivery, improved financial reporting, and stronger community trust in village officials. However, challenges such as limited IT infrastructure, lack of trained personnel, and digital literacy barriers remain obstacles to full implementation, particularly in remote or underdeveloped areas.

While existing studies have explored the benefits and technical aspects of SIMDes, there is a lack of integrative frameworks that link **SIMDes implementation with good governance outcomes** (Handayani & Riyanto, 2021). Additionally, most studies have been descriptive, with limited focus on developing conceptual models that can guide policy or further empirical research. This study addresses that gap by proposing a conceptual model that positions SIMDes as a strategic instrument for enhancing transparency, accountability, and data-based decision-making in village governance.

C. Contractor Tendering

Village government serves as the frontline of Indonesia's governance system, especially following the enactment of Law No. 6 of 2014 on Villages. Nevertheless, many villages still face administrative, planning, and reporting challenges that hinder the quality of public service delivery and financial management (Rahman & Fadillah, 2020). In this context, digitalization through the development of the *Village Management Information System* (SIMDes) presents an alternative solution. SIMDes is designed to manage population data, finance, assets, administrative services, and village development in an integrated, technology-based manner. The system is expected to support the development of an efficient, transparent, and accountable village administration.

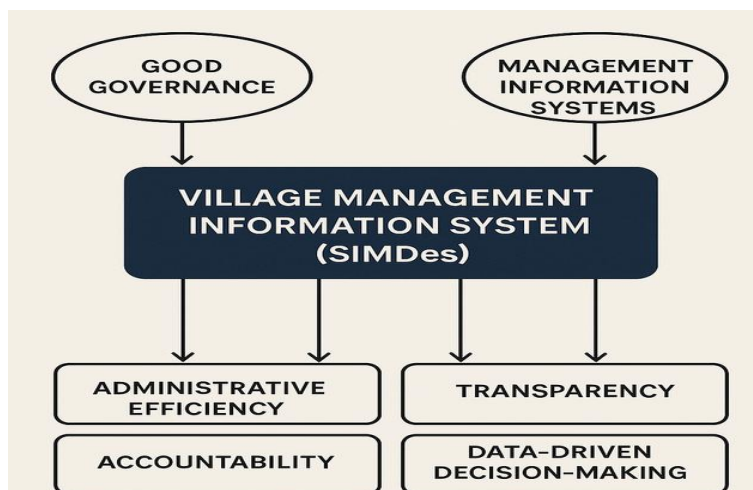


Figure 2. Conceptual Framework

This conceptual framework illustrates the role of the **Village Management Information System (SIMDes)** as a central element in the transformation of village governance. **Good Governance Theory** emphasizes key principles of public administration such as transparency, accountability, participation, effectiveness, and equity (Sari & Hamid, 2019). SIMDes is designed to support the implementation of these principles at the village level. **Management Information Systems (MIS) Theory** highlights the importance of structured, accurate information to support decision-making processes. SIMDes applies MIS principles to create a digital platform that collects, processes, and disseminates village administrative data efficiently (Kurniawan & Fauziah, 2022).

SIMDes functions as a bridge between normative governance theories and practical administrative improvements. It is not merely a technical tool, but a **strategic instrument** for driving village-level bureaucratic reform in the digital era. From the core of SIMDes, the system generates four **primary outputs** in the context of improving village governance. **Administrative Efficiency**, SIMDes streamlines village administrative processes through digitalization, reducing redundancy, expediting services, and minimizing manual errors. **Transparency**, by storing data digitally and making it accessible to stakeholders, SIMDes enhances the openness of public information at the village level (Darmawan, 2020; Galih & Damanik, 2022). **Accountability**, SIMDes enables accurate tracking and documentation of village government and financial activities, thereby strengthening accountability to both the community and external auditors. **Data-Driven Decision-Making**, the data produced by SIMDes serves as a foundation for objective, strategic, and evidence-based decision-making by village officials (Lubis & Fitriani, 2020; Hutagaol & Irawan, 2024).

Research Methodology

This study employs a **qualitative conceptual research design**, which focuses on building a theoretical and conceptual understanding of the Village Management Information System (SIMDes) as a tool for improving village governance. The approach is exploratory in nature and is intended to map the relationship between digital systems and principles of good governance at the village level in Indonesia.

Conclusion

The Village Management Information System (SIMDes) is a digital innovation that plays a crucial role in improving the quality of village governance. SIMDes can act as a catalyst for building a transparent, accountable, and participatory village administration. However, its success hinges on technological readiness, the competence of human resources, and ongoing regulatory and institutional support from both regional and central governments (Kementerian

Dalam Negeri Republik Indonesia, 2019). In the era of decentralization and regional autonomy, villages hold an increasingly strategic role as the frontline unit of government in delivering development and public services. The enactment of Law Number 6 of 2014 on Villages has granted broad authority to village governments, including financial management, development planning, and administrative services for the community. However, this increase in authority has not always been accompanied by improvements in governance capacity (Nasution, Supraja & Damanik, 2023). Many village governments continue to face challenges such as weak administrative systems, low accountability, and limited public access to information.

A strategic approach to addressing these issues is the use of information technology in the form of a Village Management Information System (SIMDes). SIMDes is a system designed to digitally integrate various administrative and managerial processes of village government, including population data management, village finances, asset records, correspondence services, and development planning and reporting (Puspitasari & Suryadi, 2021; Sari & Irawan, 2021). The system aims to improve administrative efficiency, strengthen transparency, and ensure accountability in village governance.

Within the framework of good governance theory, SIMDes plays a strategic role in supporting key principles such as transparency, accountability, effectiveness, efficiency, and participation. Through the digitalization of administrative processes, SIMDes enables the availability of accurate, real-time data accessible to stakeholders, including the public. This opens space for broader public participation and strengthens social oversight over the performance of village governments (Wahyuni & Pramono, 2020). In addition, based on management information system theory, SIMDes functions as a tool to support data-driven decision-making. The information produced by the system can be used by village heads, officials, and other local institutions to formulate policies, develop plans, and evaluate programs in a more systematic and measurable manner.

Nevertheless, the implementation of SIMDes faces several challenges. These include the limited capacity of human resources at the village level, insufficient information and communication technology (ICT) infrastructure, and low awareness of the importance of digital governance. Therefore, support from regional and central governments is needed, both in terms of regulations, funding, technical training, and the provision of adequate infrastructure (Putra & Nurhalimah, 2018). Thus, strengthening the implementation of SIMDes is a critical step in promoting bureaucratic reform at the village level. SIMDes is not merely an administrative software tool; it is an integral part of the transformation toward a more responsive, inclusive, and service-oriented local government.

Limited human resources in terms of digital literacy among village officials (Badan Pengembangan dan Informasi Desa, 2020);

- a. Inadequate ICT infrastructure in many rural areas;
- b. Restricted budget for system procurement, maintenance, and upgrades;
- c. Lack of policy integration between national, regional, and village-level governments.

To ensure the optimal function of SIMDes and its contribution to improved village governance, several strategic steps are recommended:

- a. Capacity building programs through technical and managerial training for village staff;
- b. Increased funding and infrastructure support from central and local governments;
- c. Strengthened policy integration to align SIMDes with regional information systems;
- d. Development of open-source systems that are adaptable to local needs and foster public participation.

References

- Arifin, Z., & Nugroho, H. A. (2020). *Implementasi Sistem Informasi Manajemen Desa (SIMDes) dalam meningkatkan akuntabilitas pengelolaan keuangan desa*. Jurnal Ilmu Administrasi Publik, 7(2), 113–125. <https://doi.org/10.31289/jiap.v7i2.3572>

- Badan Pengembangan dan Informasi Desa (BPID). (2020). *Laporan Tahunan: Evaluasi Nasional Implementasi SIMDes*. Jakarta: Kementerian Desa, Pembangunan Daerah Tertinggal, dan Transmigrasi.
- Darmawan, R. (2020). *Penerapan teknologi informasi dalam tata kelola pemerintahan desa di era digital*. Jurnal Ilmu Pemerintahan, 12(2), 77–88.
- Galih Supraja, S. E., & Damanik, A. F (2022). *Monograf Peningkatan Manajemen Sektor Publik untuk Kesejahteraan Masyarakat Desa di Kabupaten Deli Serdang melalui Pengukuran Efektivitas Pengelolaan Barang Milik Daerah pada Dinas Perumahan dan Kawasan Permukiman Kabupaten Deli Serdang*. uwa is inspirasi Indonesia.
- Hutagaol, J., & Irawan, I. (2024). Analysis of Financial Statements in Assessing the Financial Performance of the North Sumatra Provincial Government. *International Journal of Business, Law, and Education*, 5(2), 2625-2639.
- Handayani, S., & Riyanto, B. (2021). *Peran SIMDes dalam mendukung perencanaan pembangunan desa berbasis data*. Jurnal Pembangunan dan Pemerintahan Desa, 3(1), 14–26.
- Kementerian Dalam Negeri Republik Indonesia. (2019). *Petunjuk Teknis Penggunaan Aplikasi SIMDes*. Direktorat Jenderal Bina Pemerintahan Desa.
- Keping, Y. (2018). Governance and good governance: A new framework for political analysis. *Fudan Journal of the Humanities and Social Sciences*, 11, 1-8.
- Kurniawan, A., & Fauziah, L. (2022). *Integrasi SIMDes dengan sistem keuangan desa (Siskeudes): Studi pada desa di Kabupaten Sleman*. Jurnal Akuntansi dan Teknologi Informasi, 6(1), 55–68.
- Laudon, H., Kuglerová, L., Sponseller, R. A., Futter, M., Nordin, A., Bishop, K., ... & Ågren, A. M. (2016). The role of biogeochemical hotspots, landscape heterogeneity, and hydrological connectivity for minimizing forestry effects on water quality. *Ambio*, 45, 152-162.
- Lubis, M., & Fitriani, D. (2021). *Tantangan implementasi SIMDes: Studi kasus di Sumatera Utara*. Jurnal Administrasi dan Kebijakan Publik, 10(3), 143–155.
- Mulyadi, M., & Sari, R. (2020). *Sistem informasi manajemen dan transparansi pengelolaan keuangan desa*. Jurnal Akuntabilitas, 13(2), 67–75.
- Nugroho, Y., & Rohman, A. (2018). *Model penerapan SIMDes berbasis web untuk penguatan kapasitas tata kelola desa*. Jurnal Teknologi dan Masyarakat, 4(2), 51–60.
- Nasution, D. A. D., Supraja, G., & Damanik, A. F. (2023, April). Policy Analysis of Collection of Land and Building Tax in Pematang Serai Village, Langkat Regency. In *Proceeding of The International Conference on Business and Economics* (Vol. 1, No. 2, pp. 12-30).
- Prasetyo, H. (2020). *Pemanfaatan SIMDes dalam mendukung transparansi dan pelayanan publik di desa*. Jurnal Administrasi Negara, 15(1), 23–34.
- Puspitasari, E., & Suryadi, T. (2021). *Evaluating SIMDes using the Technology Acceptance Model (TAM)*. Journal of Public Sector IT, 5(2), 20–32.
- Putra, R. A., & Nurhalimah, S. (2018). *Good governance dan penggunaan SIMDes: Studi empiris di desa wisata*. Jurnal Administrasi Publik, 10(1), 35–44.
- Rahman, T., & Fadillah, N. (2020). *Pengaruh sistem informasi desa terhadap transparansi laporan keuangan pemerintah desa*. Jurnal Ilmu Akuntansi, 8(2), 89–97.
- Rotberg, R. I. (2014). Good governance means performance and results. *Governance*, 27(3), 511-518.
- Sari, I. P., & Hamid, H. (2019). *Analisis kesiapan teknologi informasi dalam implementasi SIMDes di daerah tertinggal*. Jurnal Ilmu Komputer dan Sistem Informasi, 7(2), 101–110.

- Sari, D. S., & Irawan, I. (2021). Empowering community in creating business opportunities in Pahlawan Village, Batu Bara Regency. *Journal of Community Service and Empowerment*, 2(2), 83-88.
- Setiawan, D. (2021). *Digital governance in village administration: A case study of SIMDes implementation in Banyuwangi Regency*. Jurnal Pemerintahan dan Politik Digital, 4(1), 45–58.
- Smeeding, T. M. (1997). *Financial poverty in developed countries: The evidence from LIS: Final report to the UNDP* (No. 155). LIS Working Paper Series.
- Susanto, E. (2021). *Digitalisasi pemerintahan desa: Peluang dan tantangan dalam implementasi SIMDes*. Jurnal Transformasi Pemerintahan, 5(1), 30–42.
- Syamsuddin, A. (2022). *The impact of SIMDes on financial accountability in village government*. Journal of Public Administration and Local Governance, 6(1), 88–97.
- Wahyuni, L., & Pramono, B. (2020). *Sistem informasi desa sebagai strategi penguatan partisipasi masyarakat dalam pembangunan*. Jurnal Sosial dan Pemerintahan, 4(1), 59–70.
- Wicaksono, A. P., & Hidayat, R. R. (2019). *Kendala implementasi SIMDes di desa tertinggal*. Jurnal Teknologi dan Informasi, 11(3), 201–212.
- Yuliana, N., & Santoso, D. (2021). *Evaluasi keberhasilan penerapan sistem informasi manajemen desa dengan pendekatan DeLone dan McLean*. Jurnal Sistem Informasi, 9(1), 12–22. <https://doi.org/10.14710/jsi.v9i1.3456>
- Yustisia, T. V. (2015). *Undang-Undang Nomor 6 Tahun 2014 Tentang Desa dan Peraturan Terkait*. Visimedia.