

Electronic Government Implementation in the SIAPDES Application: A Study of the Department of Community and Village Empowerment, Central Kalimantan Province

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Abstract

This study examines the implementation of Electronic Government through the SIAPDES Application at the Community and Village Empowerment Service of Central Kalimantan Province. SIAPDES is a web-based digital innovation designed to enhance efficiency, transparency, accountability, and village data management quality by integrating with population data. This research employed a qualitative case study approach at the Provincial PMD Office and two pilot villages (Telok Village and Maluku Baru Village). Data were gathered through in-depth interviews, observation, and documentation, and analyzed using the Miles and Huberman model. Findings reveal that the implementation of Electronic Government via SIAPDES has been initiated but is not yet optimal. Using the Harvard JFK School of Government framework (support, capacity, value), leadership support exists but lacks consistency in sustainability and budgeting. Capacity is constrained by infrastructure instability, operator turnover, server migration, limited human resources, and budget. Value is evident in archiving and monitoring but not maximized due to technical disruptions and lack of inter-agency integration. Supporting factors include leadership commitment and initial training, while inhibiting factors are uneven infrastructure, low digital literacy, and fragile program continuity. The study concludes that SIAPDES holds significant potential for village government digitalization but requires strengthened regulations, infrastructure, continuous training, and better system integration

Abstrak

Penelitian ini menganalisis penerapan Electronic Government melalui Aplikasi SIAPDES (Sistem Informasi dan Administrasi Pemerintahan Desa) di Dinas Pemberdayaan Masyarakat dan Desa Provinsi Kalimantan Tengah. SIAPDES merupakan inovasi digital berbasis web yang mengintegrasikan administrasi desa dengan data kependudukan untuk meningkatkan efisiensi, transparansi, akuntabilitas, dan kualitas pengelolaan data desa. Penelitian menggunakan pendekatan kualitatif dengan metode studi kasus di Dinas PMD Provinsi Kalimantan Tengah

serta dua desa pilot project (Desa Telok Kabupaten Katingan dan Desa Maluku Baru Kabupaten Pulang Pisau). Data dikumpulkan melalui wawancara mendalam, observasi, dan studi dokumentasi terhadap informan kunci. Analisis data dilakukan menggunakan model Miles dan Huberman. Hasil penelitian menunjukkan bahwa penerapan Electronic Government melalui SIAPDES telah berjalan namun belum optimal. Berdasarkan kerangka teori Harvard JFK School of Government (support, capacity, value), dukungan pimpinan ada tetapi belum konsisten dalam aspek keberlanjutan dan anggaran. Kapasitas terhambat oleh ketidakstabilan infrastruktur, pergantian operator, migrasi server, serta keterbatasan SDM dan anggaran. Nilai/manfaat sistem sudah terlihat pada pengarsipan dan monitoring, namun belum maksimal karena gangguan teknis dan kurangnya integrasi antarinstansi. Faktor pendukung meliputi komitmen pimpinan dan pelatihan awal, sedangkan faktor penghambat adalah infrastruktur tidak merata, literasi digital rendah, serta kontinuitas program yang rapuh. Penelitian ini menyimpulkan bahwa SIAPDES memiliki potensi besar untuk mendukung digitalisasi pemerintahan desa, tetapi memerlukan penguatan regulasi, infrastruktur, pelatihan berkelanjutan, dan integrasi sistem yang lebih baik.

Introduction

The rapid advancement of information and communication technology has significantly transformed public governance systems worldwide, including in Indonesia. Electronic government (e-government) has emerged as a strategic instrument for improving administrative efficiency, transparency, accountability, and the overall quality of public service delivery (Ministry of Home Affairs Regulation No. 47 of 2016; Indrajit, 2016). Within this transformation, village governance occupies a particularly important position, as villages represent the frontline of public administration and play a central role in local development, citizen services, and participatory governance. The integration of digital systems into village administration is therefore essential for strengthening institutional performance and ensuring more responsive and data-driven policymaking.

In Central Kalimantan Province, however, the digital transformation of village governance continues to face substantial structural and operational challenges. Persistent digital inequality, limited internet infrastructure in remote areas, low levels of digital literacy among village officials, and the continued reliance on manual administrative processes have hindered effective public service management. These challenges frequently result in fragmented data systems, duplication of administrative records, delays in reporting, and difficulties in generating accurate evidence for policy formulation and development planning. Such conditions highlight the urgent need for an integrated digital governance solution capable of improving data management and administrative coordination across villages.

In response to these challenges, the Department of Community and Village Empowerment of Central Kalimantan Province introduced the SIAPDES (Village Administration Information System) application in 2023. SIAPDES was designed as an integrated digital platform that combines village administrative services with real-time population data management, enabling more efficient reporting, monitoring, and decision-making processes. The platform is expected to support village governments in modernizing administrative workflows, improving service accessibility, and enhancing institutional accountability. Through this initiative, the provincial government seeks to accelerate the implementation of digital governance at the village level while strengthening coordination between local and provincial administrative structures.

Although training and technical assistance have been provided to 65 pilot villages, the practical implementation of SIAPDES has encountered various obstacles. Initial observations indicate that disparities in technological readiness, limited human resource capacity, inconsistent internet connectivity, and resistance to organizational change have affected the effectiveness of system adoption. These barriers suggest that the success of e-government implementation depends not only on technological availability but also on institutional preparedness, stakeholder commitment, and user acceptance. Without adequate organizational support and capacity-building mechanisms, digital innovation risks becoming underutilized despite significant policy investment.

Previous studies on e-government in Indonesia have predominantly focused on implementation at the municipal and regency levels (Astuti, 2024; Putri, 2024), while scholarly attention to village-level digital governance, particularly the SIAPDES initiative in Central Kalimantan, remains limited. This gap is significant because village governance presents unique administrative, social, and infrastructural characteristics that may shape the outcomes of digital transformation differently from urban government settings. Understanding how SIAPDES operates in this context is essential for generating practical insights into the opportunities and challenges of village digitalization.

This study addresses this research gap by analyzing the implementation of SIAPDES through the Harvard JFK School of Government's e-government framework, which emphasizes three critical dimensions: support, capacity, and value. The support dimension examines the extent of political commitment, regulatory backing, and institutional leadership that sustain digital transformation. The capacity dimension focuses on the availability of technological infrastructure, human resources, and organizational readiness required for effective implementation. Meanwhile, the value dimension evaluates the benefits generated by SIAPDES for both government institutions and village communities, particularly in terms of service quality, administrative efficiency, and policy responsiveness.

By examining these three dimensions, this study aims to provide a comprehensive understanding of how electronic government is being implemented at the village level in Central Kalimantan. The findings are expected to contribute to the broader discourse on digital public administration, particularly in developing-country contexts where

technological innovation must navigate structural inequalities and institutional limitations. Furthermore, this research seeks to offer policy recommendations for strengthening village digital governance systems and advancing inclusive, accountable, and sustainable public service transformation in Indonesia.

Literature Review

Public Administration and Paradigm Shifts

Public administration has undergone significant paradigm transformations in response to evolving societal demands, technological advancement, and changing governance structures. The traditional Old Public Administration (OPA) model emphasized hierarchical bureaucracy, procedural compliance, and centralized decision-making, prioritizing administrative stability over flexibility and innovation. This paradigm was later challenged by New Public Management (NPM), which introduced principles of efficiency, performance measurement, and market-oriented service delivery to improve government responsiveness. More recently, governance scholarship has shifted toward New Public Governance (NPG) and Digital Era Governance (DEG), both of which emphasize inter-organizational collaboration, citizen engagement, digital integration, and evidence-based policymaking. In particular, Digital Era Governance highlights the strategic role of digital technologies in transforming administrative systems, enabling integrated public services, and supporting data-driven decision-making processes in contemporary government institutions (Dunleavy et al., 2006; Vignieri, 2020).

The Concept of Electronic Government

Electronic government (e-government) refers to the use of information and communication technology by government institutions to improve public service delivery, increase administrative efficiency, enhance transparency, and promote citizen participation in governance processes (Indrajit, 2016). As a central component of digital governance, e-government enables governments to modernize bureaucratic processes through automation, digital communication platforms, and integrated information systems. Its implementation is expected to reduce administrative burdens, improve accessibility to public services, and strengthen institutional accountability. According to the Harvard JFK School of Government framework, the success of e-government depends on three fundamental dimensions: support, capacity, and value. Support refers to political commitment, regulatory frameworks, and institutional leadership that sustain digital transformation; capacity includes the availability of human resources, technological infrastructure, and financial investment; while value concerns the tangible benefits perceived by users, including improved service quality, efficiency, and public trust. These dimensions provide an important analytical foundation for evaluating the effectiveness and sustainability of digital government initiatives.

SIAPDES and Village Data Management

SIAPDES (Village Administration Information System) is a locally developed web-based information system designed to strengthen village governance through digital administrative management and integrated population data services. The system aims to streamline village-level administrative processes, improve the accuracy of demographic data, and support more responsive planning and decision-making. In the context of decentralized governance, such digital platforms are increasingly important for enhancing coordination between village governments and higher administrative institutions. However, previous studies on regional e-government implementation indicate that digital transformation at the local level often encounters persistent challenges, including inadequate technological infrastructure, limited digital literacy among public officials, insufficient technical support, and weak program sustainability (Astuti, 2024; Al-Husein, 2023). These findings suggest that the effectiveness of SIAPDES depends not only on technological functionality but also on institutional readiness and long-term governance commitment.

Research Methods

This study employed a qualitative approach using a case study design to examine the implementation of electronic government through the SIAPDES application. A qualitative case study was selected because it enables an in-depth exploration of institutional processes, stakeholder experiences, and contextual challenges associated with digital governance implementation. The research was conducted in 2025 at the Office of the Department of Community and Village Empowerment of Central Kalimantan Province, along with two selected pilot villages where SIAPDES had been actively implemented. These locations were chosen to provide comprehensive insights into both policy-level management and practical field-level application. This approach allowed the researcher to capture the complexity of interactions between administrative institutions, technology systems, and local users within the implementation process.

Informants were selected using a combination of purposive sampling and snowball sampling techniques to ensure the inclusion of individuals directly involved in the implementation and operation of SIAPDES. Participants included government officials from the provincial department, application operators, village heads, and village administrative staff. Data were collected through in-depth interviews, participant observation, and document analysis, including official correspondence, implementation reports, and activity documentation. To ensure data credibility and trustworthiness, triangulation was applied through multiple data sources and collection methods. The collected data were analyzed using the Miles and Huberman interactive model, which consists of data collection, data condensation, data display, and conclusion drawing and verification. This analytical framework enabled a systematic interpretation of findings related to institutional support, implementation capacity, and the practical value generated by the SIAPDES application.

Results and Discussion

Implementation of Electronic Government through the SIAPDES Application

The implementation of electronic government through the *SIAPDES (Village Administration Information System)* application demonstrates both progress and persistent challenges in the digital transformation of village governance in Central Kalimantan Province. Using the Harvard JFK School of Government framework, the analysis focuses on three essential dimensions: support, capacity, and value. These dimensions provide a comprehensive perspective for understanding the extent to which SIAPDES has been effectively adopted and institutionalized within village administrative systems. While the initiative reflects a strong governmental commitment toward digital governance, practical implementation reveals several structural and operational limitations that continue to affect its overall effectiveness.

From the perspective of support, SIAPDES has benefited from formal political commitment at both national and regional levels. The application is aligned with broader Indonesian digital governance policies and has received endorsement from the Department of Community and Village Empowerment of Central Kalimantan Province as a strategic instrument for modernizing village administration. Regulatory backing and leadership support have enabled the initial deployment of the system, including technical training for pilot villages and institutional coordination among relevant stakeholders. However, this support has not yet been consistently sustained, particularly in terms of long-term budget allocation, continuous technical assistance, and routine socialization efforts to strengthen user adoption. The absence of stable financial and policy reinforcement risks weakening the continuity and scalability of the program over time.

The capacity dimension remains one of the most significant challenges affecting SIAPDES implementation. Unequal internet connectivity and unstable electricity access in remote villages continue to hinder real-time system utilization and limit digital accessibility. In addition, frequent turnover among village application operators and limited digital literacy among village officials have reduced operational continuity and increased dependency on external technical support. Technical disruptions have also emerged due to server migration and domain transfer processes, which have caused intermittent access failures since early 2026 and negatively impacted administrative workflows. Furthermore, insufficient operational and maintenance budgets constrain the ability of institutions to provide timely system upgrades, technical troubleshooting, and capacity-building initiatives necessary for sustainable implementation.

Despite these limitations, SIAPDES has generated important **value** for village administration and governance practices. The application has significantly improved the efficiency of document archiving, facilitated the monitoring of village regulations (*Perdes*), and enabled more systematic management of population data at the local level. These benefits contribute to stronger administrative accountability and more accessible information management for village officials. However, recurring technical interruptions

and the incomplete integration of SIAPDES with other strategic government databases, such as the Civil Registration Office (*Dukcapil*), the Social Affairs Office (*Dinsos*), and the Central Statistics Agency (*BPS*), have prevented the platform from reaching its full potential. As a result, while SIAPDES demonstrates clear value as a digital governance tool, its broader impact remains constrained by unresolved technical and institutional barriers.

Overall, the implementation of SIAPDES reflects an important transition toward digitally enabled village governance, yet the effectiveness of this transformation depends on the balance between institutional commitment, technical readiness, and practical utility. The interaction between support, capacity, and value illustrates that successful e-government implementation requires more than technological deployment alone. Sustainable digital governance demands continuous policy support, investments in human and technological resources, and the development of interoperable systems that maximize public service benefits. Strengthening these dimensions is essential to ensure that SIAPDES can function as a reliable and scalable platform for inclusive and accountable village administration.

Table 1. Analysis of SIAPDES Implementation Based on the Harvard JFK School of Government Framework

Dimension	Key Findings	Main Challenges	Implications
Support	Political commitment and regulatory support are formally established at national and provincial levels. Initial training and institutional endorsement have been provided.	Inconsistent long-term budget allocation, limited routine socialization, and insufficient continuous technical support.	Weak sustainability and reduced institutional commitment over time.
Capacity	Basic technological infrastructure and trained pilot operators are available in selected villages.	Unequal internet and electricity access, operator turnover, limited digital literacy, server migration issues, and restricted maintenance budgets.	Disruptions in application use and reduced operational effectiveness.
Value	Improved document archiving, monitoring of village regulations, and better management of population data.	Frequent technical errors and incomplete integration with <i>Dukcapil</i> , <i>Dinsos</i> , and <i>BPS</i> databases.	Benefits are present but not yet fully optimized for decision-making and service delivery.

Table 1 illustrates that the implementation of SIAPDES has achieved meaningful progress across all three dimensions of the Harvard JFK School of Government framework, yet important gaps remain. The support dimension demonstrates that political and regulatory foundations are already in place, but inconsistent institutional reinforcement threatens long-

term sustainability. In the capacity dimension, technical and human resource limitations continue to be the primary barriers preventing effective and equitable system adoption, particularly in remote villages. Meanwhile, the value dimension confirms that SIAPDES has improved administrative efficiency and data management, although recurring technical problems and incomplete inter-agency integration limit its broader impact. These findings suggest that strengthening institutional consistency, expanding digital capacity, and enhancing system interoperability are essential steps for maximizing the effectiveness of electronic government implementation through SIAPDES.

Supporting Factors in the Implementation of SIAPDES

The implementation of the *SIAPDES (Village Administration Information System)* application in Central Kalimantan Province has been supported by several important enabling factors that contribute to its early adoption and operational acceptance. Although the system continues to face technical and institutional challenges, these supporting elements provide a strong foundation for the long-term development of digital governance at the village level. Understanding these facilitating factors is essential for identifying strategic opportunities to strengthen implementation outcomes. This analysis highlights three key supporting dimensions: leadership commitment, institutional technical assistance, and the perceived benefits experienced by users in pilot villages.

One of the most significant supporting factors is the strong commitment demonstrated by regional leadership. Political support from provincial authorities, particularly from the Department of Community and Village Empowerment, has played a critical role in initiating and legitimizing the implementation of SIAPDES. Leadership commitment has been reflected through policy endorsement, administrative coordination, and the prioritization of village digitalization as part of broader governance reform efforts. Such institutional backing is essential because successful electronic government implementation often depends on the presence of clear direction and sustained support from decision-makers. Strong leadership also helps build organizational confidence among local administrators and encourages village officials to engage more actively with the digital transformation process.

Another important facilitating factor is the provision of initial technical training conducted by the responsible government agency. Before the deployment of SIAPDES in pilot villages, technical orientation sessions and operational training were organized to familiarize village officials and application operators with the system's features and functions. These training activities served as a crucial first step in reducing uncertainty, improving user confidence, and strengthening basic digital competencies among implementers. Capacity-building efforts such as these are particularly important in rural administrative settings where digital literacy levels may vary significantly. Although additional and continuous training remains necessary, the initial technical support has contributed positively to early system adaptation and operational readiness.

The practical benefits already experienced by users in pilot villages also serve as an important supporting factor for SIAPDES implementation. Village administrators have reported improvements in document management, easier access to administrative records, and more efficient monitoring of village regulations and demographic information. These early benefits help demonstrate the practical value of digital governance tools and create positive perceptions among users regarding the usefulness of the application. When local officials directly experience improvements in efficiency and service delivery, they are more likely to support and sustain the use of the system. This perceived utility strengthens institutional acceptance and encourages broader organizational commitment to digital innovation.

In addition to administrative efficiency, the early success of SIAPDES in pilot villages has contributed to building trust in technology-based governance solutions. Positive user experiences can function as an informal mechanism for promoting wider adoption, as village officials often share their experiences with neighboring communities and administrative networks. This diffusion effect can increase interest in digital transformation and create momentum for expansion beyond initial pilot areas. Moreover, the visibility of successful implementation can strengthen the government’s legitimacy in promoting modernization initiatives and demonstrate tangible progress toward more accountable and transparent village governance.

Overall, these supporting factors indicate that the foundation for successful SIAPDES implementation has already been established, even though further improvements are needed. Strong political commitment, early technical assistance, and positive user experiences collectively provide important momentum for the sustainability of electronic government initiatives in rural contexts. However, maintaining this progress requires consistent policy reinforcement, continuous training, and strategic efforts to scale the perceived benefits across a wider range of villages. By building upon these strengths, SIAPDES has the potential to become a transformative digital governance platform that enhances administrative performance and public service quality throughout Central Kalimantan Province.

Table 2. Supporting Factors for SIAPDES Implementation

Supporting Factor	Description	Contribution to Implementation
Strong leadership commitment	Political support and institutional endorsement from regional authorities and the Department of Community and Village Empowerment	Provides policy legitimacy, organizational direction, and implementation continuity
Initial technical training	Technical orientation and operational training for village officials and application operators	Improves digital literacy, user readiness, and confidence in system adoption

Supporting Factor	Description	Contribution to Implementation
Early user-perceived benefits	Improved document management, data accessibility, and administrative efficiency in pilot villages	Strengthens user acceptance, trust in the system, and motivation for continued use

Table 2 demonstrates that the successful early implementation of SIAPDES is strongly influenced by institutional and user-related enabling conditions. Leadership commitment serves as the primary driver by ensuring political legitimacy and administrative coordination, while technical training helps prepare local actors to operate the system effectively. At the same time, the immediate benefits experienced by village users reinforce confidence in the practical value of digital governance and encourage sustained engagement with the platform. Together, these supporting factors create a positive implementation environment that can facilitate broader adoption and long-term sustainability, provided that they are continuously strengthened through strategic policy and organizational support.

Inhibiting Factors in the Implementation of SIAPDES

The implementation of the SIAPDES application at the Department of Community and Village Empowerment of Central Kalimantan Province continues to face several significant barriers that affect the effectiveness and sustainability of electronic government initiatives. Although SIAPDES was introduced as an innovative digital platform to improve village administration and public service delivery, the transition from conventional administrative practices to a technology-based governance model has not been entirely smooth. Various structural, technical, and organizational challenges have emerged throughout the implementation process. These barriers indicate that successful digital transformation in village governance requires more than technological adoption, but also institutional readiness and long-term strategic commitment.

One of the primary inhibiting factors is the inadequate digital infrastructure in many rural and remote areas. Internet connectivity remains unstable in several villages, particularly those located in geographically isolated regions of Central Kalimantan. Frequent electricity disruptions further exacerbate the problem, limiting village officials' ability to access and utilize SIAPDES consistently. As a result, administrative data input, updating, and synchronization processes are often delayed, reducing the reliability of the system as a real-time governance tool. These infrastructural limitations highlight the persistent digital divide that continues to challenge the implementation of electronic government at the local level.

Another major obstacle concerns the limitations of human resources and resistance to organizational change. Many village officials still possess limited digital literacy and lack sufficient confidence in operating web-based administrative systems independently.

Although technical training was provided during the initial implementation phase, the absence of continuous mentoring has hindered the development of long-term operational competence. Furthermore, frequent changes in village operators have created discontinuity in knowledge transfer and system management. Resistance to adopting new digital work procedures also persists among some personnel who remain more comfortable with manual administrative methods, slowing the pace of institutional adaptation.

Financial sustainability has also emerged as a critical challenge in maintaining the SIAPDES platform. The operational budget allocated for system maintenance, technical support, software updates, and infrastructure improvement remains limited and often dependent on short-term project-based funding. Without consistent financial commitment from regional authorities, the capacity to ensure continuous service availability becomes increasingly uncertain. Budget constraints also affect the ability to expand training programs, improve cybersecurity measures, and enhance interoperability with other government systems. This condition underscores the importance of integrating digital governance financing into long-term regional development planning.

Technical instability caused by server migration and domain transfer has further disrupted the performance of the SIAPDES application. Since the beginning of 2026, several users have reported difficulties accessing the system due to server downtime, slow loading times, and temporary data synchronization failures. These technical interruptions have undermined user confidence and reduced reliance on the platform for daily administrative activities. In some cases, village officials were forced to revert temporarily to manual administrative procedures, thereby diminishing the intended efficiency gains of digitalization. System reliability, therefore, remains a crucial determinant of user trust and institutional acceptance.

Overall, the inhibiting factors affecting SIAPDES implementation demonstrate that electronic government transformation requires a comprehensive ecosystem approach. Addressing digital infrastructure gaps, strengthening human resource capacity, ensuring sustainable funding, and improving technical system stability are essential to achieving long-term success. These findings reinforce the argument that electronic government is not solely a technological initiative, but a multidimensional governance reform that demands institutional resilience, policy consistency, and adaptive leadership.

Table 3. Key Inhibiting Factors in the Implementation of SIAPDES

Inhibiting Factor	Description	Impact on Implementation
Inadequate Digital Infrastructure	Uneven internet access and electricity instability in remote villages	Delays in data entry, limited accessibility, reduced system reliability

Inhibiting Factor	Description	Impact on Implementation
Limited Human Resources and Resistance to Change	Low digital literacy, operator turnover, reluctance to adopt digital systems	Reduced operational effectiveness and slower institutional adaptation
Unsustainable Budget Allocation	Limited funding for maintenance, upgrades, and technical support	Threatens long-term sustainability and system development
System Instability Due to Server Migration	Technical disruptions following server and domain migration	Decreased user trust and temporary return to manual processes

Table 2 summarizes the principal inhibiting factors affecting the implementation of SIAPDES and their implications for digital governance effectiveness. The findings indicate that technical challenges and institutional limitations are interconnected, creating cumulative barriers to successful electronic government adoption. Inadequate infrastructure and unstable systems directly affect usability, while limited human resource capacity and financial constraints weaken organizational resilience. Therefore, overcoming these barriers requires coordinated interventions involving technological investment, continuous capacity building, and sustainable policy support to ensure that SIAPDES can fulfill its intended role in strengthening village governance and public service delivery.

Conclusion

The implementation of electronic government through the SIAPDES application at the Department of Community and Village Empowerment of Central Kalimantan Province represents an important milestone in advancing the digital transformation of village governance. As an integrated digital platform, SIAPDES has demonstrated significant potential to improve administrative efficiency, enhance transparency, and support data-based decision making at the village level. The application has also contributed to simplifying data management processes, facilitating regulatory monitoring, and strengthening the overall quality of public service delivery. These initial achievements indicate that digital governance can serve as a strategic instrument for improving local administrative performance and promoting more responsive public administration.

Despite these positive developments, the overall implementation of SIAPDES has not yet reached optimal effectiveness. Based on the Harvard JFK School of Government framework, the three critical dimensions of electronic government success, namely support, capacity, and value, have not been fully achieved. Although political and institutional support for the program exists, inconsistencies in budget allocation, policy continuity, and routine socialization have limited its long-term sustainability. Similarly, capacity-related challenges, including inadequate digital infrastructure, limited human resource readiness,

and technical system instability, continue to hinder effective adoption and operational continuity.

From the perspective of public value, SIAPDES has delivered measurable benefits to village administrations, particularly in improving data accessibility, administrative documentation, and monitoring mechanisms. However, these benefits remain constrained by recurring technical disruptions and the incomplete integration of SIAPDES with other strategic government databases, such as civil registration, social welfare, and statistical information systems. As a result, the application has not yet fully realized its potential as a comprehensive digital governance ecosystem. Strengthening interoperability and system reliability will therefore be essential to maximizing the practical value experienced by users.

In conclusion, the successful implementation of SIAPDES requires a more comprehensive and sustainable governance strategy that goes beyond technological deployment alone. Strengthening institutional commitment, expanding digital infrastructure, improving the digital competencies of village officials, and ensuring stable financial support are essential priorities for future development. Electronic government initiatives at the village level must be viewed as a long-term process of organizational transformation that requires adaptive leadership, collaborative policymaking, and continuous innovation. With these improvements, SIAPDES has the potential to become a model for inclusive and effective digital governance in rural Indonesia.

References

- Al-Husein, H. M. A. (2023). *Analisis penerapan electronic government (e-gov) di Kecamatan Cinambo Kota Bandung* [Undergraduate thesis, Universitas Padjadjaran].
- Antara News Kalteng. (2023, September 14). *Resmi diluncurkan, SIAPDES diharap atasi keterlambatan penyaluran ADD di Gumus*. <https://kalteng.antaranews.com/berita/670275/resmi-diluncurkan-siapdes-diharap-atasi-keterlambatan-penyaluran-add-di-gumas>
- Astuti, S. (2024). *Penerapan e-government melalui aplikasi SISKEUDES di Dinas Pemberdayaan Masyarakat dan Desa Kabupaten Gowa* [Undergraduate thesis, Universitas Hasanuddin].
- BeritaKalteng. (2024, March 4). *Aplikasi SIAPDES tingkatkan kapasitas aparatur desa di Kalteng*. <https://beritakalteng.com/2024/03/04/aplikasi-siapdes-tingkatkan-kapasitas-aparatur-desa-di-kalteng/>
- BeritaSampit. (2025, June 18). *Indeks literasi digital rendah, Fraksi Demokrat desak Pemprov siapkan strategi khusus*. <https://beritasampit.com/2025/06/18/indeks-literasi-digital-rendah-fraksi-demokrat-desak-pemprov-siapkan-strategi-khusus/>
- Creswell, J. W. (2019). *Research design: Pendekatan metode kualitatif, kuantitatif, dan campuran* (4th ed.). Pustaka Pelajar.
- Dinas Pemberdayaan Masyarakat dan Desa Provinsi Kalimantan Tengah. (2023). *Data dan laporan penerapan aplikasi SIAPDES*. Pemerintah Provinsi Kalimantan Tengah.

- Dinas Pemberdayaan Masyarakat dan Desa Provinsi Kalimantan Tengah. (2024). *Wujud sinergi SPBE, Kadis PMD gelar pelatihan aplikasi SIAPDES*. Pemerintah Provinsi Kalimantan Tengah.
- Dinas Pemberdayaan Masyarakat dan Desa Provinsi Kalimantan Tengah. (2025). *Dukung digitalisasi pemerintahan desa, Dinas PMD Provinsi Kalimantan Tengah gelar bimbingan teknis aplikasi SIAPDES tahun 2025*. Pemerintah Provinsi Kalimantan Tengah.
- Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2006). New public management is dead. Long live digital-era governance. *Journal of Public Administration Research and Theory*, 16(3), 467–494. <https://doi.org/10.1093/jopart/mui057>
- Indrajit, R. E. (2006). *Konsep dan prinsip e-government dalam tata kelola pemerintahan elektronik*. Andi.
- Indrajit, R. E. (2016). *Electronic government: Strategi pembangunan dan pengembangan sistem pelayanan publik berbasis teknologi digital*. Andi.
- Kalteng.co. (2024). *Pelatihan pengoperasian aplikasi SIAPDES: Menuju pemerintahan desa yang efisien*. <https://kalteng.co/>
- Keban, Y. T. (2008). *Enam dimensi strategis administrasi publik: Konsep, teori, dan isu*. Gava Media.
- Lanza, A., Sancino, G., & D'Auria, V. (2023). Digital governance: A dynamic capability perspective. *Journal of Public Administration*, 59(2), 145–162.
- Mahmudi. (2010). *Manajemen kinerja sektor publik*. UPP STIM YKPN.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Sage.
- Nugroho, R. (2018). *Public policy: Dinamika kebijakan, analisis kebijakan, dan manajemen kebijakan*. Elex Media Komputindo.
- Peraturan Menteri Dalam Negeri Republik Indonesia Nomor 47 Tahun 2016 tentang Administrasi Pemerintahan Desa. (2016). Kementerian Dalam Negeri Republik Indonesia.
- ProKalteng.co. (2025). *Dukung digitalisasi desa, Dinas PMD Kalteng gelar bimtek SIAPDES*. <https://prokalteng.jawapos.com/>
- Putri, A. C. (2024). *Penerapan e-government berbasis website pada Dinas Kependudukan dan Pencatatan Sipil Kota Makassar* [Undergraduate thesis, Universitas Hasanuddin].
- Susniwati, S., Ardiyansah, A., & Sukorina, D. (2025). Good governance di era digital: Studi kasus implementasi e-government di Indonesia. *PANDITA: Interdisciplinary Journal of Public Affairs*, 8(1), 220-234.
- United Nations. (2020). *United Nations e-government survey 2020: Digital government in the decade of action for sustainable development*. United Nations Department of Economic and Social Affairs. <https://publicadministration.un.org>

Vignieri, M. (2020). Old public administration, new public management, and public governance: Shifts in dominant modes of public administration. *Journal of Public Administration*, 58(4), 301–317.