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TRANSFORMATION OF PUBLIC SERVANTS THROUGH THE USE OF LOCAL GOVERNMENT INFORMATION SYSTEM APPLICATIONS AT THE BAUBAU CITY DPRD SECRETARIAT OFFICE

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Abstract

This study investigates the transformation of public services through the implementation of the Regional Development Planning Information System (SIPD) application at the Secretariat of the Regional People's Representative Council (DPRD) of Baubau City. Preliminary findings suggest that the adoption of SIPD has driven a shift towards more digital, efficient, and transparent administrative processes, supported by the availability of technology infrastructure, improved human resource competencies, and data security effectiveness. However, realizing the full potential of SIPD for the optimization of public services requires continuous strengthening of these three crucial aspects. Inadequate technological infrastructure, human resource competency gaps, and hybrid data management are critical areas of intervention to ensure the sustainability of digital transformation. The implications of this study confirm the need for technological infrastructure updates, adaptive training programs, and comprehensive integration of data management systems to strengthen security and efficiency. Further studies are recommended to quantify the impact of this transformation as well as explore innovative strategies for hybrid legislative data management to identify best practices and improve comprehensive security.

Keywords: **Public Service Transformation, SIPD, Digitalization, Human Resources, Data Security**

INTRODUCTION

Public services are at the forefront of interaction between the government and the community, reflecting the effectiveness of governance and the level of public trust (Dwiyanto, 2014). In an increasingly digitized global landscape, the demand for the provision of public services that is fast, transparent, efficient, and responsive to the needs of the community is increasing. The Indonesian government, through various strategic policies, seeks to adopt information technology developments to transform the public sector. One of the main pillars in this transformation is the implementation of the Electronic-Based Government System (SPBE), which aims to increase the effectiveness and efficiency of government administration through the use of information technology (KemenPANRB, 2024).

At the regional level, the implementation of SPBE is realized through the implementation of the Regional Government Information System (SIPD). SIPD is designed as an integrated digital platform that covers the entire cycle of local government management, starting from development planning, budgeting, implementation, to performance evaluation (Ministry of Home Affairs Number 70 of 2019, 2019). This policy is supported by a broader regulatory framework, including Presidential Regulation Number 95 of 2018 concerning SPBE, which affirms the importance of data interoperability between government agencies and the implementation of digital-based public services (Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems, 2018). At the local level, the implementation of SIPD is also strengthened by regional regulations, such as the Baubau City Mayor Number 23 of 2024 concerning Data Management of Baubau City's Electronic-Based Government System.

Theoretically, SIPD represents an effort to centralize and standardize local government information systems, which is expected to overcome the fragmentation of local applications and facilitate coordination and supervision of local government performance in real-time (KemenPANRB, 2024). However, in practice, the transition to an integrated system often faces complexity, which includes the gap between the ideals of national regulations and the reality of implementation at the local level. Permendagri No. 70 of 2019, although comprehensive, has not fully presented detailed technical instructions for system adaptation at the local level, thus posing integration challenges with pre-existing applications (Hardiansyah & Jaffisa, 2024). In addition, there is institutional ambiguity in the

management of SIPD, where many relevant ministries (such as PANRB, Finance, Bappenas, BSSN) are involved in the process of integrating regional data without a clear division of authority, which can slow down synchronization. One of the crucial but often overlooked aspects is the role of regional legislative institutions, such as the DPRD Secretariat, in the SIPD ecosystem. Existing regulations tend to focus on the executive realm, leaving a normative void regarding the obligations and mechanisms for implementing SIPD for legislative institutions. In fact, the DPRD Secretariat plays a vital role in supporting the process of legislation, administration, and public services within the council, which should ideally be integrated into the national government information system (Ash-shidiqqi & Indrastuti, 2023). The absence of a clear legal reference can hinder the optimal use of SIPD in the legislature.

Another gap lies in the compatibility between the mandate of the implementation of SIPD and the institutional capacity of the regions. The obligation to implement SIPD nationally is often not in line with the availability of adequate human resources (HR), technological infrastructure, and budget in each region. The lack of a strict coaching mechanism and sanctions for regions that have not been able to fully implement the system creates a normative gap between the principle of "national compulsory" and the reality of "local readiness", which leads to variations in the level of implementation in various regions (Ministry of Home Affairs Number 70 of 2019, 2019).

This condition encourages the urgency of in-depth research to understand how the Baubau City DPRD Secretariat implements SIPD, as well as how the transformation of public services occurs in the midst of these various challenges. Prior to the SIPD era, administrative services at the Baubau City DPRD Secretariat were still dominated by manual and fragmented processes between work units, which had an impact on slow responses, potential recording errors, and coordination difficulties. Post-implementation of SIPD, there is a transformation towards a more integrated, digital, and real-time system, which is expected to speed up processes, improve accuracy, and transparency. However, the success of this transformation is greatly influenced by the readiness of adequate technological infrastructure, such as a stable internet network (Putri et al., 2025), as well as digital literacy and adaptation to changes in the work system by employees (Hardiansyah & Jaffisa, 2024).

Although much research has been done on the implementation of SIPD, most of it has focused on executive agencies. Studies that specifically examine the implementation of SIPD and its impact on the transformation of public services within the DPRD Secretariat are still relatively rare. This creates an empirical gap. From the theoretical side, the existing digital public service transformation theory, such as E-Government Theory or New Public Management (NPM), is often built from the context of executive organizations and has not fully articulated specific dynamics in legislative institutions that have administrative and political characteristics, (Trisantosa, 2022).

Therefore, this study aims to bridge these normative, empirical, and theoretical gaps by examining in depth the transformation of public services through the use of SIPD at the Baubau City DPRD Secretariat Office. The main focus of this study is to analyze the key dimensions that support or hinder this transformation, namely the availability of technological infrastructure, the readiness of human resources (HR), and data security systems. Understanding these three dimensions is crucial to measure the extent to which SIPD contributes to improving the efficiency, accountability, and transparency of public services in the local legislative environment, as well as to formulate relevant recommendations to strengthen digital governance.

Research Methods

This research uses a qualitative approach with a descriptive design. The qualitative approach was chosen because of the need to explore in depth the issues of public service transformation through SIPD, understand the various nuances that occur, and provide opportunities for officials to share their experiences and problems (Sugiyono, 2019). The descriptive method is used to describe systematically, factually, and accurately the process of transforming public services through the use of SIPD at the Baubau City DPRD Secretariat. Researchers interact intensively with the research subjects, observe the phenomenon directly, and analyze relevant documents to get a holistic picture, Erickson in (Sugiyono, 2017).

Researchers play a key role in data collection and analysis. The researcher is responsible for determining the focus of the research, selecting informants, conducting data collection through in-depth interviews, participatory observation, and document analysis. The quality of the data was assessed based on the criteria of credibility, transferability, dependability, and confirmability (Moleong, 2018). The researcher acts as a neutral observer and does not place himself or herself as part of the organization being studied, but remains involved in the dynamics of the field to understand the context in its entirety. The location of the research is the Baubau City DPRD Secretariat Office, chosen because this institution has implemented SIPD and shows efforts to transform the organization's internal services. The selection of this location is based on thematic relevance with a research focus on the application of information systems in the context of local government.

The data sources in this study include primary data and secondary data. Primary data was obtained directly from the field through in-depth interviews with key informants and direct observations. Secondary data is collected from official documents, performance reports, journals, articles, and other related references. Key informants are selected through purposive sampling techniques to ensure that relevant and in-depth information is obtained. The informants include the Secretary of the Regional House of Representatives, the SIPD Operator, a Member of the DPRD, and an Expert Staff of the DPRD. The selection of informants is based on criteria such as direct involvement, a deep understanding of the research object, and a willingness to share information objectively (Spradley, 1980).

The data collection techniques used include:

1. In-Depth Interview: Conducted face-to-face using interview guidelines to explore information related to the implementation of SIPD, its impact on services, and challenges faced. Assistive devices such as voice recorders (HP) and notes devices are used to accurately document the results of the interview. Interviews are conducted on an ongoing basis until the data obtained is considered adequate and valid (Creswell, 2014).
2. Participatory Observation: The researcher conducts direct observation at the research site to observe the process of service transformation through the use of SIPD. Researchers place themselves as participants as well as observers to gain a more contextual understanding (Creswell, 2014).
3. Documentation: Data collection is carried out through the analysis of related documents, such as performance reports, internal regulations, and other administrative evidence related to the use of SIPD. This document is obtained after the interview to ensure its relevance to the information that has been collected (Creswell, 2014).

The data analysis technique refers to the model (Miles et al., 2020), which includes three main stages:

a. Data Reduction: The process of selecting, focusing, simplifying, abstracting, and transforming raw data obtained from the field. Researchers encode the data and summarize it to draw preliminary conclusions.
b. Data Presentation: Organizing information that has been reduced into a structured form, such as a narrative, chart, or matrix, making it easier to understand and draw conclusions.
c. Drawing Conclusions and Verifying The process of extracting meaning from the data presented. The conclusions drawn are temporary and will be re-validated as the data collection process progresses, until a credible and verified conclusion is reached.

The technique of examining the validity of the data is carried out through the extension of observation, increased diligence, triangulation (sources, methods, researchers), discussion with peers, and analysis of negative cases (Moleong, 2018). Credibility is achieved through intensive and continuous observation, discussion of findings with informants, and checking the collected data. Transferability is achieved by providing a detailed description of the research context so that others can apply these findings in similar contexts. Dependability is ensured through careful data tracking and consistency in methodology. Confirmability is verified through confirmation of findings with the informant and consultation with the supervisor to ensure objectivity.

Results and discussion

1. Availability of Technology Infrastructure

The findings of the study show that the technology infrastructure supporting the SIPD application at the Baubau City DPRD Secretariat is generally available, but it is not fully adequate to support the operation of an integrated and *real-time-based* system. The main obstacles identified are the limited capacity and stability of the internet network, as well as hardware specifications that are not yet optimal to support modern digital application workloads.

In the context of e-government theory, the availability of technological infrastructure is a crucial foundation for the successful implementation of public information systems (Heeks, 2006). The mismatch between system demands and technological capacity can create a design-reality gap, which is the gap between the ideal system design and the reality of implementation in the field. The limitations of the internet network, both in terms of speed and stability, directly hinder the process of input, access, and reporting of data in SIPD, which in turn reduces the work efficiency of employees. This phenomenon is in line with findings (Putri et al., 2025) that identify similar obstacles in unstable internet networks, as well as research (Fatmawati, 2024) that emphasizes infrastructure limitations as the main obstacle. Limited bandwidth is a significant inhibiting factor, indicating that the current network capacity is not able to keep up with the increasingly complex needs of the system.

In addition to the network, hardware limitations are also a significant obstacle. Low-spec computers are not able to run SIPD applications optimally, causing process slowdowns and decreased productivity. In information technology theory, hardware is the physical element that supports the operation of a system (Laudon, 2022). Inconsistencies in device specifications with system needs can hinder the overall performance of the organization.

These findings are also strengthened by an analysis (Widiyanti & Rachmawati, 2022) that shows a significant influence of technological infrastructure, including hardware, on the success of SIPD implementation. However, this study also found that there are adaptive efforts from organizations in overcoming infrastructure limitations. Strategies such as scheduling bandwidth usage and adjusting working hours demonstrate the organization's ability to adapt to existing conditions, in line with the principles of adaptive governance (Folke et al., 2010). However, these adaptive efforts are temporary and have not been able to address the root of the problem. Therefore, it is necessary to strengthen infrastructure comprehensively through network capacity enhancement (including bandwidth and stability), hardware rejuvenation, and adequate policy and budget support from local governments. These findings are also in line with research (Zosadak, 2025) which emphasizes infrastructure readiness and organizational adaptability as determining factors for the effectiveness of SIPD.

2. Human Resources (HR) Readiness

The readiness of human resources in the implementation of SIPD at the Baubau City DPRD Secretariat shows positive developments, characterized by increased competence, adaptability, and acceptance of the digital system. Employees have shown progress in adapting to technology-based work patterns, which reflect the shift towards digital governance. According to the Technology Acceptance Model (TAM) theory, the acceptance of technology is influenced by the perception of ease of use and perceived benefits (Davis, 1989). The increase in employee confidence in the benefits of SIPD in supporting their work is a positive indicator. Developing adaptability also indicates a dynamic organizational learning process, where employees learn through daily work experience. This transformation includes not only technical aspects, but also changes in attitudes and behaviors towards technological innovation, leading to a change in work culture. This is in line with the findings (Hasanah, Adelia, Musyrifah, 2025) regarding the gradual improvement in human resource competencies related to SIPD.

However, the readiness of human resources is not yet fully optimal. There is a competency gap between employees in operating the SIPD application. This inequality shows differences in the level of digital literacy and technical competence among the apparatus, which has the potential to hinder the equitable distribution of work and overall work efficiency. In human capital theory, individual competence is the main factor in improving organizational performance (Becker, 1993). These gaps can lead to dependency on specific individuals and hinder the sustainability of the system if not managed properly. These findings are consistent with research (Fatmawati, 2024) that identifies human resource limitations as the main obstacle to the implementation of SIPD.

In addition, the limitations of adaptive training are also a challenge. The training conducted has not fully accommodated the dynamics of changing features and practical needs in dynamic SIPD applications. Training that is static is no longer relevant in the context of an ever-evolving system. Organizational learning theory emphasizes the importance of continuous and adaptive training to change (Senge, 1990). Mismatches between training materials and field needs can hinder effective competency improvement. This is also reinforced by research (Maulani et al., 2024) which emphasizes the importance of human resource readiness supported by adequate training. Technical barriers, such as system outages and changes in application features, also affect HR readiness. This shows that there is an interdependent relationship between system quality and user readiness. Technical glitches can lower user confidence in the system, as described in the model (DeLone & McLean, 2003) related to system quality. On the contrary, these findings also highlight the adaptability of employees who are quite good, even able to learn independently through work experience. This shows the potential for a learning culture in organizations that is an important capital in digital transformation (Lebel et al., 2006). The practical implications of these findings are the need to strengthen sustainable and adaptive training programs, intensive technical assistance, and efforts to equalize human resource competencies through more inclusive and needs-based training methods.

3. Data Security System

The data security system in the implementation of SIPD at the Baubau City DPRD Secretariat has been running effectively, characterized by the implementation of a layered approach that includes centralized system security, user access control, and administrative document management. The absence of significant incidents of data leaks or loss indicates that the existing security mechanisms have been well functioning in protecting the integrity, confidentiality, and availability of government data. This layered security approach reflects the principle of defense in depth in information security, which aims to minimize the risk of data leakage through multiple layers of protection. This implementation is in accordance with the CIA triad (Confidentiality, Integrity, Availability) in information security (Whitman & Mattord, 2018). The absence of major incidents can be interpreted as an indicator of the effectiveness of internal controls, although organizations still need to be aware of potential risks that may go undetected or unreported.

Data management procedures have followed adequate information security standards, although they are still hybrid, i.e. a combination of manual and digital systems. Information security standards, as set forth in ISO/IEC 27001, include security policies, access control, and risk management (ISO, 2013). The existence of strict access arrangements, data backup systems, and systematic document management indicates that the organization has adopted information security principles. These hybrid characteristics of data management, while still transitional, require special attention to minimize the risk of data duplication and ensure overall data integrity. This finding has similarities with research (Hasanah, Adelia, Musyrifah, 2025) which states that data security in BPKAD Jember needs to be strengthened, but in the context of the Baubau DPRD Secretariat, its effectiveness looks better. This suggests that the effectiveness of data security can vary between organizational units.

Awareness of potential risks remains important, including risks derived from human factors (Whitman & Mattord, 2018). Undisciplined users or a lack of security awareness can be a potential security loophole. Therefore, increasing user awareness through cybersecurity training is crucial. Research (Lumintang et al., 2025) also underscores that security flaws often come from users. The practical implications of these findings are the need to strengthen system integration between manual and digital to create a fully integrated system, as well as increase user awareness and competence through ongoing data security training programs. This is important to maintain the sustainability of data security and ensure trust in the SIPD system.

Conclusion

This research succeeded in describing the transformation of public services through the use of the Regional Development Planning Information System (SIPD) application at the Secretariat of the Regional House of Representatives (DPRD) of Baubau City. The use of SIPD in general has driven a shift towards more digital, efficient, and transparent administrative services. This transformation is indicated by the availability of supporting technology infrastructure, increased competence and adaptation of human resources, and the effectiveness of data security systems.

However, this study also confirms that the full potential of SIPD in supporting the optimization of public services can only be achieved through sustainable strengthening of these three crucial aspects. Insufficient technological infrastructure, human resource competency gaps, and hybrid data management are areas that require further intervention to ensure the sustainability and effectiveness of digital transformation.

Suggestions

1. For practitioners at the Baubau City DPRD Secretariat, it is recommended to prioritize improving the quality of technological infrastructure, especially on internet network stability and hardware updates, as well as designing more adaptive training programs to overcome the competency gap in human resources. In addition, it is necessary to make efforts to integrate the data management system as a whole to strengthen security and efficiency.
2. For academics, further research can explore the specific impact of infrastructure improvement, human resource training, and data security integration on the quantitative improvement of public service efficiency and transparency. Comparative studies with other regional DPRD secretariats that also implement SIPD can also provide broader insights.
3. It also recommends further research exploring innovative strategies in hybrid legislative data management, to identify best practices that can optimize the integration of digital and manual data, and comprehensively strengthen security.

REFERENCES

Ash-shidiqqi, E. A., & Indrastuti, L. (2023). Pelayanan Publik Berbasis Digital Indonesia. In *Al Qalam: Jurnal Ilmiah Keagamaan dan Kemasyarakatan* (Vol. 17, Nomor 4). Deepublish. https://doi.org/10.35931/aq.v17i4.2348

Becker, G. S. (1993). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education* (3rd ed.). University of Chicago Press.

Creswell, J. W. (2014). *Penelitian Kualitatif & Desain Riset.* (Ketiga.). Pustaka Pelajar, Terjemahan.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, *13*(3), 319–340. https://doi.org/10.2307/249008

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*, *19*(4), 9–30. https://doi.org/10.1080/07421222.2003.11045748

Dwiyanto, A. (2014). *Mewujudkan Good Governance Melalui Pelayanan Publik*. Gajah Mada University Press.

Fatmawati, F. T. & Y. (2024). Analisis Tantangan Dan Hambatan Dalam Implementasi Sistem Informasi Pemerintah Daerah Republik Indonesia (Sipd Ri) Untuk Penatausahaan Keuangan Di Dinas Cipta Karya, Tata Ruang Dan Pertanahan Kabupaten Kotawaringin Timur. *Nusantara Hasana Journal*, *4*(5), 58–71.

Folke, C., Carpenter, S., Walker, B., Scheffer, M., & Rockstrom, J. (2010). Resilience thinking: integrating resilience. *Adapt Transform Ecol Soc*, *15*.

Hardiansyah, R., & Jaffisa, T. (2024). Peran Sistem Informasi Pemerintahan Daerah (SIPD) dalam Meningkatkan Pelayanan Publik yang Efektif dan Transparan (Studi Kasus Pada Kantor Badan Perencanaan Pembangunan Daerah Kota Medan). *Innovative: Journal Of Social Science Research*, *4*(4 SE-Articles), 5194–5206. https://doi.org/10.31004/innovative.v4i4.13709

Hasanah, Adelia, Musyrifah, R. (2025). Peran Sistem Informasi Pemerintahan Daerah (SIPD) Pada Badan Pengelolaan Keuangan Dan Aset Daerah (BPKAD) Kabupaten Jember. *Jurnal Penelitian Nusantara*, *1*, 155–162.

Heeks, R. (2006). *Implementing and managing e-government: An international text*. SAGE Publications.

Kemendagri Nomor 70 Tahun 2019. (2019). Peraturan Menteri Dalam Negeri Republik Indonesia Nomor 70 Tahun 2019 tentang Sistem Informasi Pemerintah Daerah. *Permendagri Republik Nomor 70*, *Nomor 65*(879), 2004–2006.

KemenPANRB. (2024). Peraturan Menteri Koordinator Bidang Kemaritiman Dan Investasi Republik Indonesia Nomor 2 Tahun 2024 Tentang Sistem Pemerintahan Berbasis Elektronik Di Kementerian Koordinator Bidang Kemaritiman Dan Investasi (Vol. 4, Nomor 1, hal. 9–15).

Laudon, K. C. . J. P. L. (2022). *Management Information Systems (Managing the Digital Firm)*. Pearson Education Limited.

Lebel, L., Anderies, J. M., Campbell, B., Folke, C., Hatfield-dodds, S., Hughes, T. P., & Wilson, J. (2006). *Governance and the Capacity to Manage Resilience in Regional Social-Ecological Systems*. *11*(1).

Lumintang, R., Morasa, J., & Kindangen, W. D. (2025). *Penerapan Sistem Informasi Pemerintah Daerah pada Badan Perencanaan Penelitian dan Pengembangan Daerah Kota Kotamobagu*. *3*, 387–397. https://doi.org/10.58784/rapi.356

Maulani, A., Anshori, M. I., & Andriani, N. (2024). Inovasi Teknologi dalam Pemerintahan: Implementasi SIPD sebagai Alat untuk Mendukung Optimalisasi Pengelolaan Keuangan Daerah. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, *7*(2), 1415–1422. https://doi.org/10.54371/jiip.v7i2.3451

Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative Data Analysis: A Methods Sourcebook* (4 ed.). SAGE Publications.

Moleong, L. J. (2018). *Metodologi Penelitian Kualitatif*. Remaja Rosdakarya.

Peraturan Presiden Nomor 95 Tahun 2018 tentang Sistem Pemerintahan Berbasis Elektronik, Menteri Hukum Dan Hak Asasi Manusia Republik Indonesia 110 (2018).

Putri, D. A., Alifah, T. N., & Purwaningrum, T. (2025). Evaluasi Penerapan Sistem Informasi Pemerintahan Daerah (Sipd) Dalam Pelaksanaan Laporan Keuangan Pada Dinas Kesehatan Kabupaten Ponorogo Della. *Journal of Community Dedication*, *5*(1), 110–118.

Senge, P. M. (1990). *The Fifth Discipline: The Art & Practice of The Learning Organization*. Doubleday.

Spradley, J. P. (1980). *Ethnographic Interviu*. Holt, Rinehart and Winston.

Sugiyono. (2017). *Metode Penelitian Kebijakan (pendekatan Kuantitatif, Kualitatif, kombinasi, R&D dan Evaluasi*. Alfabeta.

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. PT Alfabet.

Trisantosa, D. K. & H. M. H. (2022). Pelayanan Publik Berbasis Digital. In *Grup Penerbitan CV BUDI UTAMA* (Vol. 16, Nomor 2).

Whitman, M. E., & Mattord, H. J. (2018). *Principles of Information Security* (6th ed.). Cengage Learning.

Widiyanti, S., & Rachmawati, A. (2022). Analisis Kesiapan SDM dan Infrastruktur Teknologi terhadap Keberhasilan Implementasi SIPD di Pemerintah Kabupaten Sleman. *Jurnal Akuntansi dan Keuangan Indonesia*, *X*(Y), pp-pp.

Zosadak, J. (2025). Analisis Efektivitas dan Efisiensi Sistem Informasi Pemerintah Daerah (SIPD) pada Pemerintah Kabupaten Kaimana Papua Barat. *Blantika: Multidisciplinary Journal*, *3*(7), 934–951. https://doi.org/10.57096/blantika.v3i7.372