



E-Government Maturity of the SIMPEG SIMAKDIHATI Application in Managing Civil Servant Performance in Denpasar

I Wayan Wahyu
Adiatmika*

Universitas Pendidikan Nasional,
Indonesia

Ni Wayan
Widhiasthini

Universitas Pendidikan Nasional,
Indonesia

***Corresponding author:**

I Wayan Wahyu Adiatmika,
Universitas Pendidikan Nasional, Indonesia.
✉ wayanwahyu251099@gmail.com

Article Info:

Article history:

Received: September 17, 2026

Revised: October 14, 2026

Accepted: October 21, 2026

Available Online: October 28, 2026

Keywords:

Civil Servant Performance;
Digital Government Index;
E-Government;
Local Government;
Personnel Information System



This is an open access article under the
CC BY-SA license.

Copyright © 2026 by Author. Published by
Politeknik Siber Cerdika International

Abstract

Background: Digital government is expected to modernize civil service management, yet the implementation of locally developed personnel management applications and the constraints affecting their effectiveness remain insufficiently documented at the municipal level in Indonesia.

Objective: This study examines the implementation of the SIMPEG SIMAKDIHATI application for managing the performance of civil servants (*Aparatur Sipil Negara* [ASN]) in the Denpasar City Government, including implementation barriers and the measures taken to address them.

Methods: A descriptive qualitative research design was employed. Data were collected through semi-structured interviews with 12 purposively selected informants, direct observation, and document review, and were analyzed using the Miles and Huberman interactive model. The six dimensions of OECD Digital Government Index (DGI) were used as the analytical framework.

Results: SIMPEG SIMAKDIHATI exhibits implementation characteristics across the six DGI dimensions through the integration of performance targets and attendance records, the use of personnel data, cross-agency data exchange, controlled information disclosure, user-oriented development, and responsive complaint handling. Implementation remains constrained by limited server capacity, an outdated activity-weighting scheme, incomplete integration with MyASN, restricted disclosure of peer-performance information, technical disruptions, and limited administrator capacity. Measures to address these constraints include database and program optimization, a review of activity-weighting criteria, phased synchronization with MyASN, controlled information disclosure, vendor-coordinated technical troubleshooting, and capacity building to strengthen administrator competencies.

Conclusion: SIMPEG SIMAKDIHATI supports the digitalization of civil service performance management in Denpasar. However, its continued development requires stronger infrastructure, appropriate performance measurement instruments, adequate administrative capacity, and closer integration with national civil service systems.

To cite this article: Adiatmika, I. W. W., & Widhiasthini, N. W. (2026). E-government maturity of the SIMPEG SIMAKDIHATI application in managing civil servant performance in Denpasar. *Journal of Business, Social and Technology*, 7(5), 2672–2689. <https://doi.org/10.59261/bustechno.v7i5.852>

INTRODUCTION

The Fourth Industrial Revolution has brought significant changes to public administration, most visibly through the rapid diffusion of information and communication technology (ICT) into government operations. One institutional response to this shift is e-government, understood as the use of information technology by government agencies to

2672 | Journal of Business, Social and Technology

establish more efficient, transparent, and participatory relationships with citizens, businesses, and other government bodies (Wibawa, 2009; Wongmith, 2025). In Indonesia, this agenda dates back to Presidential Instruction No. 3 of 2003 on the National Policy and Strategy for E-Government Development, which was intended to accelerate national development and strengthen public service delivery through ICT (Amrozi et al., 2022). Indonesia's e-government agenda pursues four strategic objectives: greater efficiency, stronger transparency and accountability, more accessible public services, and enhanced public participation and innovation (Hansiden, 2023). Achieving these objectives depends heavily on the civil servants who constitute the administrative machinery of local government. To ground this broader agenda in a concrete institutional instrument, this study examines Denpasar City's SIMPEG SIMAKDIHATI application, focusing on the day-to-day dynamics of performance management that motivate the present research.

Civil servants (*Aparatur Sipil Negara*, ASN) occupy a strategic position in this agenda because their professionalism and performance directly influence public trust in government (Ramadhani, 2025). Indonesia's civil service framework has undergone substantial regulatory changes, most recently with Law No. 20 of 2023 concerning the State Civil Apparatus, which replaced Law No. 5 of 2014 and further advanced a system-based, digitally supported approach to ASN management. This approach is guided by the BerAKHLAK core values of service orientation, accountability, competence, harmony, loyalty, adaptability, and collaboration (Azizah, 2025). Ministerial Regulation No. 6 of 2022 concerning Performance Management of Civil Servants operationalizes this shift by emphasizing employee development, alignment with leadership expectations, continuous performance dialogue, organizational goal attainment, and the documentation of work results and behavior. This orientation has encouraged local governments to develop dedicated personnel information systems (*Sistem Informasi Manajemen Kepegawaian*, SIMPEG) to plan, implement, monitor, and evaluate ASN performance electronically.

The Denpasar City Government, the capital of Bali Province, has pursued this digitalization agenda through its SIMPEG SIMAKDIHATI application (*Sistem Informasi Manajemen Administrasi Kepegawaian untuk Database Akurat, Tertib, dan Informatif*), established under Denpasar Mayor Regulation No. 28 of 2021 on the Implementation of the Electronic-Based Government System and further supported by Mayoral Decree No. 188.45/1126/HK/2019. As Bali's provincial capital and the island's principal administrative, economic, and educational center, Denpasar administers a comparatively large and socioeconomically diverse municipal bureaucracy, making it a demanding yet instructive setting in which to examine digital civil service reform in practice. The application is intended to establish effective and efficient work processes, optimize employee and organizational performance, and strengthen employee discipline across a workforce of more than 12,000 ASN spanning three generational cohorts, from Generation X civil servants who transitioned from analog to digital work environments to Generation Z digital natives (Choudhary & Bansal, 2024). Since its broader rollout in 2023, SIMPEG SIMAKDIHATI has integrated daily performance reporting, Employee Performance Targets (*Sasaran Kinerja Pegawai*, SKP), and attendance records into a single platform, positioning the application as a central operational component of the city's digital human resource management. Nevertheless, routine monitoring data accessed by the researcher indicate that many employees still fall short of the mandated monthly workload of 6,750 minutes. Furthermore, 1,555 attendance-related complaints were recorded between January and November 2025 alone, suggesting that formal digitalization has not automatically resolved underlying performance management challenges.

E-government scholarship offers a useful, although incomplete, explanation of why such gaps persist. The OECD's Digital Government Index (DGI) conceptualizes digital government maturity through six dimensions: digital by design, a data-driven public sector, government as a platform, open by default, user-driven design, and proactiveness. These dimensions describe the extent to which digital technology is embedded in policymaking, governance, management, and service delivery rather than treated merely as an additional technological tool (OECD, 2024). This framework builds on a broader body of literature demonstrating that digital transformation in government involves organizational and process changes as much as technological adoption (Fandi Prasetya et al., 2025; Gil-Garcia et al., 2018; Gong et al., 2020). Personnel information systems, meanwhile, constitute a form of human resource information system that supports

workforce planning, performance appraisal, and administrative efficiency while reducing reliance on manual processes (Baidya et al., 2025; Dessler, 2020; Laudon & Laudon, 2020; Mathis et al., 2016). In the Indonesian civil service context, these systems are also positioned as instruments of merit-based bureaucratic reform (MacLean & Titah, 2022; Sinambela, 2021; Weigl et al., 2024). Performance management is similarly conceptualized as a continuous cycle of planning, monitoring, development, appraisal, and feedback intended to align individual contributions with organizational goals (Armstrong, 2022). This process is closely connected to work discipline, which is an important determinant of sustained employee performance (Hasibuan, 2019; Pratama, 2022; Rivai & Sagala, 2018).

Previous empirical studies, however, have tended to examine these elements in relative isolation, primarily at the macro, cross-national, or policy level. A critical comparison of the available literature reveals two predominant approaches: cross-national or cross-city indices that assess digital government maturity at a level far removed from individual applications, and single-agency implementation studies that evaluate specific systems without reference to a broader maturity framework. Consequently, the meso-level question of how an individual, operational municipal application performs against an established digital government maturity framework remains largely unanswered. Comparative and index-based studies have examined e-government development and digital transformation across countries or large numbers of cities. Osman & Zablith (2021) and Yanto et al. (2024), for example, reassessed e-government development indices in relation to the Sustainable Development Goals across multiple national contexts. Wongmith (2025) conducted a SWOT-informed national assessment of e-government service utilization in Thailand, while Huang et al. (2025) examined the effects of intelligent e-government programs on total factor energy efficiency across 282 Chinese cities. Aswin and Sofyan (2022) adopted a broader domestic perspective, describing Indonesian local e-government as generally constrained by gaps in network infrastructure, shortages of workforce digital skills, and uneven levels of public digital literacy. Meanwhile, normative studies have explored the policy implications of Indonesia's new civil service law without empirically assessing the performance of specific applications in practice (Erwin et al., 2024).

A smaller body of research has examined personnel information systems within individual agencies, typically emphasizing technical implementation or leadership commitment to data use rather than the dynamics of performance management itself. Muin et al. (2024) found that SIMPEG implementation at a regional ministry office effectively supported employee transfer, promotion, and rotation decisions when adequate hardware, software, human resources, and network infrastructure were available. Similarly, Sariasih and Wijaya (2024) reported effective SIMPEG implementation within a provincial organizational bureau, evaluating its performance against five general indicators of policy effectiveness rather than a digital government maturity framework. Broader assessments of e-government and public service complaint platforms in Indonesia also identify persistent constraints involving infrastructure, human resources, and interagency coordination. For example, Premaiswari et al. (2024) found that the national SP4N-LAPOR! complaint management system achieved a user satisfaction rate of 75.7% nationally while continuing to face challenges related to incomplete interagency integration. Meanwhile, studies of employee performance in other organizational settings highlight the roles of competence, discipline, and motivation. Widhiasthini and Widiartini (2025), for instance, found that work discipline and motivation were significant predictors of employee performance in a private regional bank. However, such studies do not address digitally mediated performance management in government institutions. What remains largely unexplored is how these various dimensions converge within a single, operational local government personnel application: specifically, how its digital design, data practices, integration capabilities, openness, user orientation, and responsiveness collectively shape, and are constrained within, the day-to-day management of civil servant performance.

This study addresses this research gap by examining how the SIMPEG SIMAKDIHATI application functions as an e-government instrument for managing ASN performance in the Denpasar City Government, using the OECD Digital Government Index as its analytical framework. Specifically, the study investigates the dynamics of implementation across the six DGI dimensions, the factors that continue to impede implementation, and the measures taken by the city government in response. Positioning a functioning municipal personnel application within an

internationally recognized digital government maturity framework, while examining the interplay among its design, operational constraints, and institutional responses, constitutes the study's principal contribution and distinguishes it from the predominantly macro-level or single-dimension literature reviewed above. Its novelty is primarily empirical and contextual rather than methodological: rather than proposing a new framework, the study applies an established one (the OECD DGI) to a previously unexamined object, namely, a single local government personnel application in a decentralized, developing-country context. Theoretically, the study contributes to public administration scholarship by extending the application of the Digital Government Index framework, originally designed for cross-national benchmarking, to a grounded organizational analysis of a specific local government instrument. Practically, the findings are intended to inform the Denpasar City Government's decisions concerning SIMPEG SIMAKDIHATI, provide an empirical reference for other Indonesian local governments pursuing comparable digital civil service reforms, and deepen ASN personnel's understanding of application-based performance management as it continues to evolve. More broadly, by tracing how digital government maturity is produced and constrained within a single organization, the study contributes to the digital public administration literature's shift from defining and measuring digital transformation toward explaining how it unfolds in practice (Maulana et al., 2024; Mergel et al., 2019). It also contributes to the continuing debate on the public value that e-government is ultimately expected to generate (MacLean & Titah, 2022; Twizeyimana & Andersson, 2019).

Table 1

The Six Dimensions of the OECD Digital Government Index

Dimension	Core Idea
Digital by design	Digital technology integrated from the planning stage of policy and service delivery, not added afterward
Data-driven public sector	Systematic data management and use as the basis for decisions, policy, and performance evaluation
Government as a platform	Government as provider of integrated digital infrastructure enabling cross-unit service integration
Open by default	Openness of data, information, and process as the default, limited only for legitimate reasons
User-driven	Service design grounded in user needs, experience, and continuous feedback
Proactiveness	Capacity to anticipate user needs and deliver timely service without waiting for explicit requests

Source: Adapted from OECD (2024)

Table 2

Denpasar City ASN by Generational Cohort

No.	Birth-Year Range	Generational Cohort	Number of ASN
1	1965–1980	Generation X	1,865
2	1981–1995	Generation Y (Millennial)	6,269
3	1996–2010	Generation Z	3,984
Total			12,118

Source: Denpasar City Personnel and Human Resource Development Agency (BKPSDM), 2025.

METHOD

This study employed a qualitative descriptive design to produce an in-depth, contextually grounded account of how the SIMPEG SIMAKDIHATI application functions in managing civil servant performance within the Denpasar City Government. This design is consistent with the qualitative tradition's emphasis on naturalistic inquiry, in which the researcher serves as the primary instrument and meaning is constructed from field data. The descriptive orientation aimed to systematically and factually describe who was involved, when and where the application was used, and how its implementation unfolded in practice, including the constraints encountered.

The study was conducted within the Denpasar City Government for three reasons: its *Aparatur Sipil Negara* (ASN; State Civil Apparatus) workforce encompasses diverse generational and occupational backgrounds; SIMPEG SIMAKDIHATI had been in broader use for only approximately two years at the time of the study; and the application is an internal system specific to this municipal government, making it a bounded, information-rich case.

Twelve informants were selected through purposive sampling based on their direct involvement with, authority over, or reliance on the application. They included agency heads who acted as policymakers and direct supervisors; echelon III and IV officials responsible for policy implementation; the third-party application developer; the SIMPEG SIMAKDIHATI system administrator at the Denpasar Personnel and Human Resource Development Agency (*Badan Kepegawaian dan Pengembangan Sumber Daya Manusia*, or BKPSDM); an application administrator at the local-agency level; rank-and-file ASN personnel serving as end users; and an external informant from the National Civil Service Agency (*Badan Kepegawaian Negara*, or BKN) Regional Office X, who provided a national policy perspective on civil service data governance. Informants were selected because each had been directly involved with SIMPEG SIMAKDIHATI in their respective roles since its broader rollout in 2023, whether by setting organizational targets, approving subordinate *Sasaran Kinerja Pegawai* (SKP; Employee Performance Targets), maintaining the system, handling routine data corrections, or entering daily performance records. This selection ensured that each account was grounded in sustained, firsthand experience with the application rather than general familiarity.

Primary data were collected through semistructured, in-depth interviews that allowed informants to elaborate freely while remaining guided by a prepared interview protocol. These interviews were complemented by direct observation of the application's operation in daily use and document analysis of relevant regulations, budget documents, complaint logs, and system usage records. Secondary data comprised policy documents, official reports, and relevant prior literature. Data credibility was strengthened through source triangulation across informant groups and documents, methodological triangulation across interviews, observation, and document analysis, and sustained, persistent engagement with the research setting (Sugiyono, 2016, 2023).

Data were analyzed using the interactive model of Miles and Huberman, which comprises data reduction, data display, and conclusion drawing and verification. These processes were conducted iteratively until thematic saturation was reached (Denzin & Lincoln, 2009; "The Sage Handbook of Qualitative Research Quality," 2025). Data reduction focused the extensive interview, observation, and documentary material on information relevant to the study's three guiding questions. The findings were then presented in a structured narrative organized around the six dimensions of the OECD Digital Government Index (DGI): digital by design, data-driven public sector, government as a platform, open by default, user-driven design, and proactiveness. These dimensions served as the analytical framework for interpreting the application's implementation dynamics, the barriers encountered, and the municipal government's responses. Conclusions remained provisional until corroborated by triangulated evidence from subsequent data collection.

To operationalize the framework, each of the six DGI dimensions was translated into concrete, observable analytical indicators before coding. Interview, observation, and document data were then classified against these indicators. The digital-by-design dimension was assessed in terms of end-to-end process integration (e.g., the linkage between SKP and attendance records) and the extent of in-house versus vendor-dependent development. The data-driven public sector dimension was assessed in terms of personnel data completeness, data protection, the use of data in decision-making, and the currency of the activity-weighting scheme. The government-as-a-platform dimension was assessed in terms of cross-agency data exchange and the degree of integration with national systems (*MyASN/SIASN*). The open-by-default dimension was assessed in terms of the scope of information disclosure and the differentiation of access rights by organizational role or rank. The user-driven-design dimension was assessed through evidence of user-informed development and the responsiveness of complaint handling. Finally, the proactiveness dimension was assessed in terms of the system's capacity to anticipate user needs and the adequacy of the number of administrators relative to the workforce served.

Thematic saturation was considered achieved when, within each of the six DGI

dimensions, additional interviews and document reviews no longer revealed substantively new barriers or response measures beyond those identified through at least two independent informant categories. This threshold was met across all six dimensions by the twelfth informant. The study did not involve human or animal experimentation. Participation in the interviews was voluntary, all informants were informed of the study's purpose, and their identities were protected through role-based descriptions rather than personal disclosure. Before each interview, informants received a verbal explanation of the study's aims, the voluntary nature of participation and their right to withdraw, and the intended use of their statements. Verbal informed consent to participate and to be audio-recorded was obtained and documented in the interview notes.

Informants were required to meet one or more of the following criteria: serving as ASN personnel within the Denpasar City Government; holding authority or responsibility for decision-making, management, or policy implementation related to SIMPEG SIMAKDIHATI; occupying a managerial position as the head of a local agency or serving as a direct supervisor within the personnel hierarchy; holding a functional position at the senior, intermediate, or junior expert level; serving as an operational implementer within a work unit; acting as a personnel administrator for a local agency; being affiliated with BKPSDM or the third-party developer, PT Djingga; or representing an external party involved in the management of ASN performance in Denpasar. On this basis, the twelve informants were grouped into seven role-based categories, as summarized in Table 3. The adequacy of the sample was determined by informational sufficiency rather than numerical criteria alone. As the study examined a single bounded case and the sampling frame deliberately encompassed all roles involved in the application's operation (from policymakers and supervisors to the developer, system administrators, end users, and external BKN oversight) the researchers continued recruitment only until additional interviews ceased to yield new role-specific information. Thematic saturation across all six DGI dimensions was achieved by the twelfth informant.

Table 3*Research Informants*

No.	Informant Category	Role	n	Code
1	Head of a Local Agency (OPD)	Policymaker, direct supervisor, user	2	I1
2	Echelon III and IV Officials	Policy implementer, direct supervisor, user	4	I2
3	Third-party application developer	Application developer	1	I3
4	SIMPEG SIMAKDIHATI manager at BKPSDM	System manager, bug handler	1	I4
5	OPD-level application administrator	Coordinator, user	1	I5
6	Denpasar City ASN	User	2	I6
7	BKN Regional Office X staff	External oversight of ASN management	1	I7
Total			12	I1–I7

Table 4*Alignment Between Research Questions, Data Sources, and Analysis*

Research Question	Primary Data Source(s)	Analytical Focus
RQ1. What dynamics characterize SIMPEG SIMAKDIHATI's implementation in managing ASN performance?	Interviews with I1, I2, I4, I5, I6; direct observation of the application; policy and budget documents	Implementation patterns mapped against the six OECD DGI dimensions
RQ2. What factors impede that implementation?	Interviews with I1, I2, I3, I6, I7; complaint logs; server-capacity records; BKN policy documents	Barriers classified by DGI dimension and cross-checked across informant groups
RQ3. What measures has the	Interviews with I1, I2, I4;	Response measures

Research Question	Primary Data Source(s)	Analytical Focus
city government taken in response?	internal coordination records; comparative benchmarking notes	traced to the specific barrier they address, by dimension

RESULTS AND DISCUSSION

This section first presents the empirical findings on the implementation of SIMPEG SIMAKDIHATI, organized around the six dimensions of the OECD Digital Government Index (DGI). The barriers encountered and the measures taken by the Denpasar City Government are reported within each dimension's factual account. Throughout this section, the findings for each dimension are explicitly linked to the study's three research questions: implementation dynamics (RQ1), impeding factors (RQ2), and the city government's responses (RQ3). This approach ensures that the empirical descriptions remain consistently tied to the research objectives rather than being presented in isolation. The subsequent Discussion section interprets these findings in relation to DGI theory and previous research on e-government and human resource management, situates the case within the broader international discourse on digital-era civil-service reform, and examines the study's theoretical and practical implications alongside its limitations.

Table 5

Summary of DGI Dimensions, Barriers, and Response Measures

DGI Dimension	Principal Barrier Identified	Principal Response Measure
Digital by design	Near-full server capacity; vendor-dependent development	Program/database optimization; IT training for managers
Data-driven public sector	Outdated (2019), uneven activity-weighting scheme	Weight re-evaluation; benchmarking; planned MyASN sync
Government as a platform	Incomplete MyASN integration; duplicate data entry	Phased synchronization; dedicated e-Kin BKN team
Open by default	Peer performance data not disclosed	Supervisor dialogue; Nakula notification feature
User-driven	Frequent attendance/e-performance system errors	Vendor-coordinated fixes; staggered-input guidance
Proactiveness	Thin administrator layer (7 superadmins : 12,118 ASN)	Flexible competency reinforcement; coaching/mentoring

Result

Digital by Design

SIMPEG SIMAKDIHATI originated in personnel-system digitization efforts that began around 2005 and were consolidated into a more integrated, widely used platform in 2023. That year, daily performance entries and *Sasaran Kinerja Pegawai* (SKP; Employee Performance Targets) submissions moved fully online, and the system was directly linked to the attendance application. Consequently, performance management evolved from the paper-based *Daftar Penilaian Pelaksanaan Pekerjaan* (DP3) appraisal to SKP-based management and, ultimately, to a fully digital SKP process within a single interface. As the head of BKPSDM (I1) explained, "SIMAKDIHATI was developed to speed up personnel administration and support bureaucratic reform, ensuring that personnel data remains current, valid, accurate, and integrated so that it can serve as the basis for personnel policy." This orientation is echoed by a policy analyst (I2), who noted that broader use of the daily performance and SKP submission features began in 2023, although attendance integration only became fully accessible on individual employees' devices around midyear. The application's interface was deliberately kept simple to accommodate *Aparatur Sipil Negara* (ASN; state civil apparatus) across generational cohorts (Table 2). As one head of a local agency (I1) observed, "The interface is easy to access and use... although older generations need a little more adjustment, the application can still be used well."

Implementation nevertheless remains constrained by infrastructure. The application's 3.3-terabyte server routinely had less than 25 gigabytes of free capacity during monthly checks

conducted between January and July 2026. Application development also remains dependent on an external vendor because BKPSDM lacks in-house programming staff, while some employee records, such as educational histories, certificates, and profile photographs, are not consistently updated. The head of BKPSDM's IT division (I2) attributed part of the server constraint to procurement rules requiring hardware to meet domestic-content (TKDN) requirements, whereas the system's required specifications are more readily met by imported servers. In response, BKPSDM has pursued program and database optimization, is developing system components with lower storage requirements, and provides information technology training to application managers, partly to reduce dependence on the vendor. A national BKN official (I7) offered a complementary model already used at the central level: rather than storing performance-evidence files directly, BKN's e-Kinerja system stores only links to employees' own cloud storage. As the official explained, "so the server load can be kept down even though the system has to serve ASN across all of Indonesia." This link-based storage approach could further alleviate SIMPEG SIMAKDIHATI's capacity constraints alongside BKPSDM's existing optimization efforts.

Data-Driven Public Sector

The application encourages employees to complete and verify their own personnel data, including identity, family, employment history, education, and training records. BKPSDM uses these data to support talent management, career development, and the identification of competency needs. Performance ratings and monthly achievement summaries are also recorded and displayed digitally as part of the evaluation process. The head of BKPSDM (I1) explained that "employees can access and evaluate their own data so they can plan their self-development more purposefully," with the system envisaged as becoming more closely integrated with talent management and career-path planning over time. Data protection is grounded in prevailing legislation: personnel data are treated as restricted information under Indonesian electronic information and transactions (ITE) regulations. An IT-division official (I2) confirmed that "sanctions under the ITE Law apply to any misuse or unauthorized dissemination of personnel data, including by the system's own administrators."

The representativeness of performance data is nevertheless undermined by the e-performance activity-weighting scheme. The scheme assigns systematically lower weights to certain functions, such as finance and personnel administration, than to technical roles; requires employees to repeatedly justify activities that supervisors have already approved; and relies on a weighting study conducted in 2019. A BKPSDM application manager (I2) described that study as "no longer very relevant to current conditions, because the variety and demands of employee work have kept increasing." A subdistrict head (I2) added that meeting the mandated monthly workload target of 6,750 minutes is particularly difficult for staff engaged in intensive public-facing service, since "high workload and service intensity do not always align with the activity weights available in the system." A national BKN official (I7) likewise characterized rigid daily point targets as impractical for positions, such as agency leadership roles, whose core activities (including coordination, meetings, and stakeholder engagement) do not readily translate into points. This contrasts with BKN's own approach, which links daily activities to a flexible monthly *Rencana Hasil Kerja* (RHK; Work Result Plan) without imposing a fixed daily point target. In response, BKPSDM has begun re-evaluating the basis for activity weighting, benchmarking its practices against those of other local governments, and planning synchronization with the national MyASN application so that performance records can better reflect actual workloads.

Document review corroborates these informant accounts. At the Environment and Sanitation Agency (*Dinas Lingkungan Hidup dan Kebersihan*, DLHK), 768 part-time *Pegawai Pemerintah dengan Perjanjian Kerja* (PPPK; Government Employees under Work Agreements) had not yet submitted the required *rencana aksi* (action plan) for the first semester of 2026, even though all permanent *Pegawai Negeri Sipil* (PNS; civil servants) and full-time PPPK staff in the same agency had done so. Meanwhile, monthly e-performance summaries for a subdistrict office, *Kelurahan Tonja*, showed that average recorded work time remained consistently below the 6,750-minute target throughout the same semester. As the head of that subdistrict (I2) explained, intensive public-facing service leaves staff with little time to complete e-performance entries, causing recorded minutes to understate their actual efforts. Considered alongside the complaints about activity weighting, this pattern suggests that the gap between actual workloads

and recorded e-performance is not confined to a single occupational group. Rather, it recurs wherever service intensity is high and the available activity weights do not adequately capture the work performed.

Table 6

Activity-Recording Approach: SIMPEG SIMAKDIHATI e-Performance vs. BKN's e-Kinerja/RHK Model

Feature	SIMPEG SIMAKDIHATI e-Performance	BKN e-Kinerja / RHK Model
Basis for daily recording	Fixed point value per activity type	Flexible linkage to monthly Work Result Plan (RHK)
Weighting basis	Study conducted in 2019, not yet revised	Continuously adjustable at instance level
Treatment of coordination/meetings	Difficult to convert into points	Recognized as part of RHK achievement
Monthly target	6,750 minutes, uniform across positions	No fixed daily point target
Evidence storage	Direct upload to local server	Link to employee's own cloud storage

Government as a Platform

SIMPEG SIMAKDIHATI functions as a shared platform that integrates personnel and performance data across Denpasar's local government agencies (*Organisasi Perangkat Daerah*, OPD). This arrangement is supported by employee-led data updates, BKPSDM verification, and a notification feature called Nakula, which reminds employees of outstanding updates or approvals. As the head of BKPSDM (I1) put it, "SIMAKDIHATI integrates ASN performance data and management across OPDs, supported by data updates, BKPSDM verification, and the Nakula reminder feature." The head of an OPD organizational bureau (I2) added that the platform also disseminates internal information, including announcements, meeting schedules, and videoconference links, thereby functioning as an institutional communication channel. Its maintenance is institutionally supported by a 2026 municipal budget allocation of Rp37,004,000 for personnel information-system maintenance, alongside third-party involvement in ongoing development (Table 7). The third-party developer (I3) confirmed that this involvement extends beyond routine maintenance to active feature co-design with BKPSDM. The developer described an iterative working relationship in which BKPSDM and OPD-level administrators identify functional needs, the vendor assesses their feasibility within the existing architecture, and proposed changes are rolled out and tested before wider release. This arrangement helps explain both the platform's continuing responsiveness to user needs and its persistent dependence on external technical capacity.

Table 7

Illustrative Institutional Support for SIMPEG SIMAKDIHATI, 2026

Support Mechanism	Description	Indicative Value / Status
Budget allocation (DPA)	Personnel information-system maintenance sub-activity, BKPSDM	IDR. 37,004,000
Server capacity	Total allocated storage for SIMPEG SIMAKDIHATI	3.3 terabytes
Complaint channel	BKPSDM online complaint service, Jan–Sep 2026	1,329 reports logged
ASN professionalism index (2022)	BKN Regional Office X assessment	"Medium" rating

Integration with MyASN, the national civil-service application operated by BKN, nevertheless remains incomplete. Because the national one-data policy increasingly restricts personnel-data updates to BKN's own SIASN channel, including through the Integrated Mutation

(I-MUT) system, employees must still enter data more than once for daily performance records, leave requests, and supporting documents across the two systems. As a policy analyst (I2) explained, “data already entered into SIMAKDIHATI sometimes still has to be re-entered into MyASN because the two systems are not yet fully connected.” A BKN official (I7) confirmed that this duplication is a deliberate feature of the national transition toward a single data source: “the goal of one data means the central data has to be BKN's or SIASN's... applications like SIMAKDIHATI still record daily performance separately, so it becomes double: e-Kinerja from BKN and Denpasar's own, then leave requests again, then documents have to be uploaded twice.” Separately, Denpasar's ASN professionalism index was rated “medium” in the 2022 assessment (Table 7). This provides contextual evidence of broader personnel-management challenges predating the application's wider rollout in 2023, rather than direct evidence of the effects of the current MyASN integration process.

Open by Default

Openness in SIMPEG SIMAKDIHATI is controlled rather than unconditional. Direct supervisors can review and approve daily performance entries, while administrators can monitor attendance dashboards to support objective and disciplined performance assessment. Personal, confidential, or undecided information remains restricted, consistent with statutory limits on the disclosure of personnel data. As the head of BKPSDM (I1) explained, “information that is already final and public in nature can in principle be accessed and presented to employees, but data still under discussion or decision-making needs to be distinguished from that.” The third-party developer (I3) confirmed that access is tiered according to users' roles: administrators, agency heads, and personnel administrators can view attendance and discipline-related information relevant to their supervisory responsibilities. The developer added that “that data is not only used as information but can also become material for leadership in determining discipline policy for employees,” illustrating how controlled openness serves as an input to managerial decision-making rather than transparency alone. This model, however, does not yet extend to peer comparisons. A policy analyst (I2) noted that “performance-achievement data for each individual cannot yet be viewed by other employees,” because full disclosure raises concerns about social consequences and the potential misuse of personal performance information. Consequently, the mechanism for determining an appropriate degree of openness remains underdeveloped. The city government's response has been to expand controlled rather than universal transparency, principally through monthly performance dialogues and feedback between supervisors and subordinates and through the Nakula notification feature. An IT-division official (I2) described the latter as designed simply “to remind [employees] that there is something they need to do, and to do it promptly.” These measures keep employees and supervisors informed of their obligations without exposing individual performance data to the wider workforce.

User-Driven

System development has been shaped by the needs of its principal user groups: ASN as end users, OPD-level operators, and BKPSDM administrators, as summarized in Table 8. OPD operators also serve as the frontline channel through which user complaints are relayed to BKPSDM. As an IT-division official (I2) explained, “system development has to support the needs of operators, admins, and ASN alike, including the services and modules that make the process easier and faster.” Users also reported that digitalization has replaced manual performance recording with automatic data accumulation, easing daily administrative work. An OPD-level application administrator (I5) described the practical responsibilities associated with this role: administrators function as “the extension of BKPSDM's admin” within each local agency, handling routine data corrections and serving as the first point of contact when a fellow employee cannot resolve an attendance or performance-entry problem independently, before escalating unresolved cases to higher levels.

Table 8*Principal User Categories of SIMPEG SIMAKDIHATI*

User Category	Main Authority	Approx. Number
Application manager (BKPSDM superadmin)	Bug resolution, application updates, performance monitoring	7
OPD administrator	Input duty/leave/error records, monitor discipline and performance	One per OPD
Head of local agency (OPD)	Set organizational targets, manage and approve subordinate SKP	34 (high leadership positions)
Administrator / supervisory officials	Manage sectional SKP, review, feedback, coaching	165 + 243
Functional and executing staff (PNS and PPPK)	Daily performance input, SKP submission	11,753

Source: Denpasar City BKPSDM, 2026 (rounded from the 2026 SIMPEG SIMAKDIHATI user dataset, total 12,195 accounts)

This user orientation is nevertheless undermined by technical instability. A total of 1,329 complaints were logged between January and September 2026: 1,175 concerning the attendance application, 131 concerning SKP, and 23 concerning e-performance and allowance features (Table 7). Disruptions particularly affect morning attendance recording and end-of-month e-performance entry, when concurrent usage peaks and may cause employees who arrive on time to be incorrectly recorded as late. A fire-and-rescue analyst (I6) described the practical consequences: “the attendance application often has problems in the morning, so employees who actually arrived on time risk being recorded as late because of the system disruption.”

In addition to BKPSDM's formal online complaint channel, each SIMPEG SIMAKDIHATI module (attendance, e-performance/allowances, and SKP) has a dedicated WhatsApp group through which OPD-level administrators report module-specific problems directly. These groups provide a faster, informal escalation route alongside the formal complaint log. BKPSDM staff report that the groups often surface issues before they are captured in the official tally, as summarized in Table 9. BKPSDM addresses these disruptions through two complementary measures: systematically logging reported issues for coordinated resolution with the vendor and advising employees to distribute their e-performance entries throughout the month rather than concentrating them near the deadline, since clustered, high-volume data entry has repeatedly been associated with system errors.

Table 9*Complaint Channels for SIMPEG SIMAKDIHATI, 2026*

Channel	Scope	Reporting Path
BKPSDM online complaint service	All modules; formally logged and tallied (Table 7)	Employee/admin → BKPSDM → vendor
Attendance module WhatsApp group	Attendance-specific errors	OPD admin → group → BKPSDM/vendor
e-Performance/allowance WhatsApp group	e-Performance and TPP-related errors	OPD admin → group → BKPSDM/vendor
SKP WhatsApp group	SKP-specific errors	OPD admin → group → BKPSDM/vendor

Proactiveness

A tiered feedback mechanism channels user-reported problems, including difficulties with attendance and e-performance entry, from employees to OPD administrators and onward to BKPSDM for resolution. As a policy analyst (I2) summarized it, “if an employee has trouble with attendance or e-performance input, they usually report it to the personnel admin, who then forwards it to BKPSDM for follow-up.” System development has also responded to user requests for new features and to changes in central-government policy, including the requirement to integrate with BKN's MyASN application. This responsiveness is constrained by limited

administrative capacity. An application manager (I2) reported that “the number of superadmins for performance management is only seven, while Denpasar's ASN number 12,118, which is quite burdensome—bug reports sometimes cannot be resolved within 24 hours.” OPD-level administrators, particularly those in large, shift-based units such as the fire and rescue service, face similarly heavy workloads. A fire-and-rescue analyst (I6) noted that arranging shift schedules and handling error reports for a large field workforce, particularly amid last-minute shift changes, considerably complicates administrators' work and can force a temporary return to manual processes. This creates a risk of human error because e-performance data are linked to allowance payments. In response, BKPSDM has pursued continuous, flexible competency development for employees and administrators alike. These efforts extend beyond formal training and socialization to include performance dialogues, peer-to-peer communication, coaching, and mentoring, thereby reducing dependence on a limited central team for capacity building. As a BKPSDM policy analyst (I2) explained, “competency development doesn't always require a resource person, a venue, or a Zoom session—even performance dialogue between colleagues, or between supervisor and subordinate, counts as competency development.” Coaching and mentoring are specifically encouraged so that employees can first turn to peers or supervisors rather than escalating routine questions to the central system administrator.

Discussion

These findings indicate that SIMPEG SIMAKDIHATI has achieved substantial implementation across all six Digital Government Index dimensions, while also demonstrating that digital-government development remains constrained by infrastructural, measurement, and institutional conditions. The central argument of this discussion is that implementation is substantial but uneven: advances in integration, data use, and platform functionality coexist with resource and institutional constraints. Accordingly, the six DGI dimensions are interpreted here as analytical dimensions of implementation rather than as independently scored maturity levels. The integration of SKP with attendance records exemplifies the type of business-process reengineering that distinguishes genuine digital-by-design transformation from the mere digitization of paper forms. Zein et al. (2024) draw a similar distinction in their study of personnel e-government implementation. Whereas their case showed that attendance and personnel systems remained siloed, Denpasar's closer integration suggests that digital-by-design maturity depends less on the mere presence of technology than on the extent to which business processes and organizational structures are realigned around it.

This interpretation aligns with the broader digital-transformation literature, which emphasizes that technology adoption in government is inseparable from organizational and process change (Fandi Prasetya et al., 2025; Gil-Garcia et al., 2018; Gong et al., 2020). SIMPEG SIMAKDIHATI's evolution from an early digitization effort in 2005 into an integrated platform in 2023 illustrates the kind of multiyear, incremental process realignment that this literature associates with genuine rather than superficial digital-government maturity. At the same time, a 3.3-terabyte server operating with only tens of gigabytes of free capacity, together with continued dependence on an external vendor for application development, indicates that this alignment remains only partially resourced. This is consistent with Huang et al. (2025), who found that digital-government efficiency gains are most fully realized where resource allocation and the policy environment are also optimized, although their macro-level, cross-city analysis examined energy efficiency rather than the technical and operational constraints documented in this study.

The data-driven dimension reveals a related tension between data completeness and data validity. Personnel records are comprehensive and increasingly used for talent management and career-related decisions, consistent with Muin et al. (2024), who likewise found that accurate, integrated SIMPEG data supported personnel decision-making. Their case, however, concerned structural decisions, such as transfers and promotions, at a regional office of a national ministry, rather than the individual performance-management and career-development applications documented here. Yet the underlying performance metric—minutes of recorded activity weighted according to a scheme last revised in 2019—does not translate well across occupational roles. This limitation is reinforced by BKN's preference for a flexible, RHK-based alternative to rigid daily point targets (Table 6). The finding echoes Osman & Zabli (2021) and Yanto et al. (2024) broader argument that digital-government measurement instruments require periodic

reassessment to remain valid as the phenomena they measure evolve. The present study extends that argument from their cross-national e-government development index to the micro-level instrument used to weight individual activities within a single application.

Viewed through Armstrong (2022) conception of performance management as a continuous cycle of planning, monitoring, development, appraisal, and feedback, the evidence from DLHK and Kelurahan Tonja indicates that the planning and monitoring stages of this cycle are only partially aligned in SIMPEG SIMAKDIHATI. Targets—6,750 minutes and fixed activity points—are established uniformly, but monitoring data, including unsubmitted *rencana aksi* documents and recorded workloads consistently below the target in service-intensive units, suggest that the instrument used to monitor performance does not adequately capture the work actually performed. This is particularly evident in units where public-facing service leaves little time for administrative data entry. The finding is consistent with Bernardin & Russell (2013) and Baidya et al. (2025) caution that performance measurement must rely on indicators that are objective, measurable, and genuinely relevant to the tasks of the position being assessed. When an indicator is poorly matched to the task, as the activity-weighting evidence suggests here, the appraisal and feedback stages inherit that mismatch regardless of how effectively the surrounding digital infrastructure operates. This reveals a more fundamental risk than data quality alone: because allowance payments are tied to recorded e-performance minutes, a weighting scheme that is poorly specified for a particular role does not merely understate effort; it can also distort incentives and remuneration. A system may therefore maintain high internal data integrity while producing measures with low construct validity—that is, it may measure activity precisely while measuring the wrong aspects of performance.

As a platform, SIMPEG SIMAKDIHATI operationalizes, at the level of a single city government, the type of cross-agency and multilevel integration that Widhiasthini et al. (2024) argue is more broadly required for Indonesian public-policy reform. Whereas their analysis is conceptual and macro-oriented, Denpasar's experience shows how such integration is constructed in practice through data-verification workflows, a notification feature, budgeted maintenance, and iterative vendor co-design. It also reveals the limits of this integration: incomplete connectivity with the nationally mandated MyASN system continues to require duplicate data entry. This pattern is consistent with Dunleavy et al. (2006) and Krogh & Triantafillou (2024) colleagues' original digital-era governance thesis, which identified the reintegration of fragmented public-sector functions around shared digital platforms as a defining feature of post-New Public Management reform while recognizing that such reintegration is rarely achieved in a single step. Denpasar's ongoing, phased synchronization with MyASN, rather than completed integration, exemplifies the intermediate, multiyear state that the theory would predict for a local system situated between an established local platform and an emerging national one. Because this gap stems partly from a deliberate national policy of centralizing ASN data within BKN's SIASN system, rather than from local negligence alone, it also aligns with Erwin et al. (2024) account of Law No. 20 of 2023 as a driver of digitalization and the reorganization of civil-service management at the national level. Denpasar's phased synchronization with MyASN represents the operational, local-level counterpart to that national policy direction.

The controlled openness observed under the open-by-default dimension and the still-limited responsiveness observed under proactiveness point to the same underlying condition: institutional readiness, not merely technological readiness, determines the pace of digital-era governance. Consistent with Premaiswari et al. (2024) finding that Indonesia's national public-complaint platform, SP4N-LAPOR!, remains constrained by interagency commitment and infrastructure despite its regulatory foundation, Denpasar's information-disclosure practices are functional but deliberately bounded rather than fully open. This reflects a similar institutional-readiness constraint at the municipal rather than national level. The fact that the same tiered-access data also informs managerial disciplinary decisions, as the developer's account suggests, indicates that open by default functions less as a citizen- or peer-facing transparency mechanism, as usually emphasized in OECD guidance, and more as an internal accountability mechanism directed upward from employee to supervisor. This is a narrower but still meaningful realization of the underlying principle. Similarly, whereas Aswin & Sofyan (2022) describe Indonesian local e-government more generally as still developing its capacity to respond proactively to user needs, Denpasar's tiered complaint-handling channels and adaptive response to national policy changes

suggest a somewhat more developed feedback mechanism than that general picture implies. Nevertheless, a limited administrative layer—seven superadmins for more than twelve thousand employees—continues to slow response times. The city has begun to offset this constraint through flexible, peer-based competency development rather than relying solely on headcount expansion. Of the barriers documented across the six dimensions, three warrant priority because they threaten system continuity rather than merely limiting further refinement: near-full server capacity (digital by design), incomplete MyASN integration and its associated duplicate-entry burden (government as a platform), and the limited administrative capacity (proactiveness). The remaining constraints, although important, pose less immediate risk to service continuity.

Beyond the Indonesian case, these findings contribute to an international discourse on digital-era governance in which technology adoption and institutional capacity are increasingly understood as interdependent rather than sequential (Fandi Prasetya et al., 2025; Gil-Garcia et al., 2018; Gong et al., 2020). Much of the OECD's Digital Government Index work, along with a substantial portion of the wider e-government literature, assesses maturity at the national or cross-city level. This study contributes by showing what that maturity looks like, dimension by dimension, within a single mid-sized municipal government in a decentralized developing-country context. It also identifies the concrete organizational mechanisms—budget allocations, vendor coordination, notification features, and tiered complaint channels—through which each dimension is advanced or constrained. In doing so, the study offers other local governments navigating comparable national one-data policies and civil-service digitalization mandates a grounded illustration of how DGI-based frameworks can be applied below the national level. It also identifies the organizational trade-offs that such frameworks must confront in practice, including those between local system autonomy and national data centralization, rapid feature deployment and infrastructure capacity, and transparency and privacy. More broadly, the persistence of informal channels that operate faster than formal mechanisms, such as the module-specific WhatsApp groups documented under the user-driven dimension, suggests that digital-era governance in resource-constrained local governments does not always advance solely through the addition of new formal system features. In the short term, progress may also occur through lightweight, informally institutionalized workarounds that compensate for gaps in formal responsiveness while more permanent solutions are developed. This pattern warrants explicit investigation in future comparative digital-government research.

This study has several limitations. As a single-case qualitative study of one municipal application, it describes the specific dynamics of SIMPEG SIMAKDIHATI, and its findings should be extended to other local governments with caution because of differences in workforce size, fiscal capacity, and existing digital infrastructure. The reliance on interviews, observation, and document review, without an independent technical audit of server performance or system code, means that some infrastructure-related claims are based on informant testimony and routine monitoring data rather than controlled measurements. Although the twelve informants were selected to represent policymaking, implementation, technical management, and end-user perspectives, they constitute a purposive rather than representative sample. Consequently, the prevalence of specific complaints—for example, the proportion of ASN experiencing recurring attendance errors—cannot be generalized numerically from this study alone, even though the nature and direction of the identified barriers were corroborated across multiple independently interviewed informant groups. Finally, because data collection captured a particular stage in the application's development, including its ongoing integration with MyASN, some of the reported barriers may have been partly addressed by the time of publication. This underscores the value of continued longitudinal monitoring of the application's evolution.

Notwithstanding these limitations, the six-dimension pattern documented here offers a broader methodological lesson for digital-government research in decentralized settings. National policy instruments, such as the one-data ASN mandate, and locally observable technical constraints, such as server capacity and administrator staffing, are not separate explanatory categories; they operate jointly. A barrier identified under one DGI dimension—for example, incomplete MyASN integration under government as a platform—often has a corresponding cause or consequence under another, such as duplicate data entry undermining the data-driven dimension and limited proactiveness arising because the same small administrative team must manage both systems. Future municipal-level applications of the DGI framework may therefore

benefit from explicitly mapping these cross-dimensional linkages rather than treating each of the six dimensions as an independent scorecard item. The Denpasar case suggests that, although the dimensions are analytically distinct, they are operationally intertwined in everyday personnel administration.

From a practical standpoint, the Denpasar case suggests that municipal governments preparing to adopt or upgrade a local personnel information system should treat infrastructure sizing, activity-weighting design, and integration planning with the national civil-service database as concurrent design decisions rather than sequential afterthoughts. Sizing server capacity only to meet current demand, as appears to have occurred with SIMPEG SIMAKDIHATI's 3.3-terabyte allocation, risks recurring capacity constraints as the workforce and data volume grow. Similarly, designing an activity-weighting scheme without a mechanism for periodic revision risks the type of obsolescence documented here, in which a scheme remains in place for five to seven years despite changes in the diversity and demands of employees' work. For BKN and other national civil-service authorities, the Denpasar case illustrates a practical trade-off in the transition toward a single data source. Although centralizing ASN data in SIASN and MyASN strengthens national data governance, local governments that continue to operate legacy systems in parallel incur a measurable administrative burden during the transition. National transition planning could address this burden more explicitly, for example, through clearer implementation timelines or transitional data-exchange support beyond the API access already offered.

For human resource management theory, this case adds a digitally mediated illustration of Mangkunegara (2017), Pauji and Nurhasanah (2022) and Bernardin and Russell (2013) and Baidya et al. (2025) shared premise that performance depends jointly on ability, motivation, and opportunity. SIMPEG SIMAKDIHATI's controlled-openness and performance-dialogue mechanisms address motivational and opportunity-related dimensions reasonably well by providing supervisor feedback and access to career-relevant data. However, the ability dimension (considered here in relation to the fit between employees' actual competencies and the activity-weighting instrument used to score their work) remains comparatively underdeveloped. An employee who is highly motivated and works in a service-intensive role may still be recorded as underperforming if the available activity weights do not reflect the nature of that role. This suggests that public-sector digital performance-management systems cannot be evaluated solely based on data completeness and system stability. The validity of the underlying measurement instrument, and its suitability for the diversity of roles to which it is applied, is an equally decisive, if less visible, determinant of whether digitalization translates into fairer and more accurate performance management.

CONCLUSION

This study shows that SIMPEG SIMAKDIHATI has substantially supported the digitalization of civil-servant performance management in the Denpasar City Government across the six analytical dimensions of the OECD Digital Government Index. The application integrates performance targets and attendance records, supports the use of personnel data for talent and career management, facilitates cross-agency information exchange, provides controlled access to information, incorporates user needs into system development, and maintains tiered mechanisms for resolving user problems. However, implementation remains constrained by limited server capacity, an activity-weighting scheme that has not kept pace fully with the diversity of current workloads, incomplete integration with MyASN, technical disruptions, restrictions on the disclosure of performance data, and limited application-administrator capacity. The city government has responded through system and database optimization, reviews of activity weighting, phased synchronization with national systems, controlled-disclosure mechanisms, vendor-coordinated technical resolution, and continuous competency development.

These findings indicate that effective digital performance management depends not only on application development but also on adequate infrastructure, valid performance-measurement instruments, institutional capacity, and alignment between local and national civil-service information systems. The study contributes a grounded application of the OECD DGI dimensions to a single municipal personnel system and offers practical lessons for Denpasar and other local governments implementing comparable reforms. Because the study is based on a single qualitative case, its findings are analytically rather than statistically generalizable. Future

research should examine the continuing integration of SIMPEG SIMAKDIHATI with MyASN, evaluate the revised activity-weighting mechanism, assess the effectiveness of formal and informal complaint channels, and compare similar personnel-management systems across Indonesian local governments.

ACKNOWLEDGEMENT

The authors would like to thank the Denpasar City Government, the Denpasar Personnel and Human Resource Development Agency (BKPSDM), and all informants, including officials of the National Civil Service Agency (BKN) Regional Office X, for their time, cooperation, and openness during data collection. The authors also thank the third-party developer of SIMPEG SIMAKDIHATI for its willingness to describe the application's design rationale and ongoing development process, and the local-agency administrators who took the time, amid substantial daily workloads, to share their first-hand experience of using and supporting the system.

AUTHOR CONTRIBUTION STATEMENT

I Wayan Wahyu Adiatmika: conceptualization, data collection, formal analysis, writing – original draft. Ni Wayan Widhiasthini: supervision, validation, writing and editing. Both authors read and approved the final manuscript.

REFERENCES

- Amrozi, Y., Aini, N., & Munadhiroh, Z. (2022). Peta perkembangan e-government di Indonesia. *JSI: Jurnal Sistem Informasi (E-Journal)*, 14(1), 2465–2472. <https://doi.org/10.18495/jsi.v14i1.16635>
- Armstrong, M. (2022). *Armstrong's handbook of performance management*. Kogan Page.
- Aswin, A., & Sofyan, M. M. (2022). Dinamika pelaksanaan electronic governance pemerintahan daerah di Indonesia. *Kebijakan: Jurnal Ilmu Administrasi*, 13(1), 65–69. <https://doi.org/10.23969/kebijakan.v13i1.5152>
- Azizah, L. (2025). *Analisis etos kerja ASN BerAKHLAK terhadap kinerja pegawai*.
- Baidya, P., Thakur, M., & Tiwari, P. (2025). Green Human Resource Management. *Social Science Forum*, 9(4). <https://doi.org/10.10118/SSFJ/2509408>
- Bernardin, H. J., & Russell, J. E. (2013). *Human resource management: An experiential approach*. McGraw-Hill.
- Choudhary, H., & Bansal, N. (2024). Understanding technology usage patterns across generational cohorts: Insights on digital natives and digital immigrants. *Journal of Business and Management Studies*.
- Denzin, N. K., & Lincoln, Y. S. (2009). *Handbook of qualitative research*. SAGE Publications. <https://scholar.google.com/scholar?q=%22Handbook%20of%20qualitative%20research%22>
- Dessler, G. (2020). *Human resource management*. Pearson. <https://scholar.google.com/scholar?q=%22Human%20resource%20management%22>
- 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>
- Erwin, R., Angelia, R. R. O., & Desmon, A. (2024). Transformasi manajemen ASN pasca ditetapkan undang-undang. *Jurnal Ilmu Administrasi Publik*.
- Fandi Prasetya, Izzato Millati, Sandra Sukma Embuningtiyas, & Delia Eca Fitria. (2025). Digital Government Transformation. *The Accounting Journal of Binaniaga*, 10(02), 151–164. <https://doi.org/10.33062/ajb.v10i02.145>
- Gil-Garcia, J. R., Dawes, S. S., & Pardo, T. A. (2018). Digital government and public management research: Finding the crossroads. *Public Management Review*, 20(5), 633–646. <https://doi.org/10.1080/14719037.2017.1327181>
- Gong, Y., Yang, J., & Shi, X. (2020). Towards a comprehensive understanding of digital transformation in government: Analysis of flexibility and enterprise architecture. *Government Information Quarterly*, 37, 101487. <https://doi.org/10.1016/j.giq.2020.101487>
- Hansiden, H. (2023). Strategi implementasi e-government dalam mewujudkan pelayanan publik yang efisien di Indonesia. *Jurnal Ilmu Pemerintahan*.

- Hasibuan, M. S. P. (2019). *Manajemen sumber daya manusia*. Bumi Aksara.
- Huang, X., Hu, Y., Zhang, F., & Li, T. (2025). Government digital transformation for sustainable development: How e-government initiatives enhance total factor energy efficiency. *Research in International Business and Finance*, 103084. <https://doi.org/10.1016/j.ribaf.2025.103084>
- Krogh, A. H., & Triantafillou, P. (2024). Developing New Public Governance as a public management reform model. *Public Management Review*, 26(10). <https://doi.org/10.1080/14719037.2024.2313539>
- Laudon, K. C., & Laudon, J. P. (2020). *Management information systems: Managing the digital firm*. Pearson.
- MacLean, D., & Titah, R. (2022). A systematic literature review of empirical research on the impacts of e-government: a public value perspective. *Public Administration Review*, 82(1), 23–38.
- Mangkunegara, A. P. (2017). *Manajemen sumber daya manusia perusahaan*. Remaja Rosdakarya.
- Mathis, R. L., Jackson, J. H., Valentine, S. R., & Meglich, P. (2016). *Human resource management*. Cengage Learning. <https://scholar.google.com/scholar?q=%22Human%20resource%20management%22>
- Maulana, R. Y., Durnik, M., & Decman, M. (2024). Collaborative Approach on Digital Government Transformation: In-Depth Analysis from Expert Interview. *NISPAcee Journal of Public Administration and Policy*, 17(1). <https://doi.org/10.2478/nispa-2024-0005>
- Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. *Government Information Quarterly*, 36(4), 101385. <https://doi.org/10.1016/j.giq.2019.06.002>
- Muin, M. S., Muthalib, A. A., & Supriaddin, N. (2024). Analisis implementasi aplikasi Sistem Informasi Manajemen Kepegawaian (SIMPEG) untuk mendukung e-government pada Kantor Wilayah Kementerian Agama Provinsi Sulawesi Tenggara. *Jurnal Administrasi Publik*.
- OECD. (2024). *Digital Government Index: 2023 results*. OECD Public Governance Policy Papers.
- Osman, I. H., & Zablith, F. (2021). Re-evaluating electronic government development index to monitor the transformation toward achieving sustainable development goals. *Journal of Business Research*, 131, 426–440. <https://doi.org/10.1016/j.jbusres.2020.10.027>
- Pauji, I., & Nurhasanah, N. (2022). Peranan manajemen sumber daya manusia pada perusahaan manufaktur. *Journal of Management & Business (SEIKO)*, 5(2).
- Pratama, A. (2022). *Manajemen sumber daya manusia (untuk pemerintahan dari teori ke praktik)*. Penerbit Widina.
- Premaiswari, N. M. W., Siregar, R., & Ghazali, R. (2024). The effectiveness of the SP4N-LAPOR! as a national public service complaint management application. *JKAP (Jurnal Kebijakan Dan Administrasi Publik)*, 28(1), 36. <https://doi.org/10.22146/jkap.94108>
- Ramadhani, D. (2025). Peran aparatur sipil negara dalam penguatan kepercayaan publik. *Jurnal Kebijakan Publik*.
- Rivai, V., & Sagala, E. J. (2018). *Manajemen sumber daya manusia untuk perusahaan: Dari teori ke praktik*. Rajawali Pers.
- Sariasih, K. Y., & Wijaya, K. A. S. (2024). Penerapan Sistem Informasi Manajemen Kepegawaian (SIMPEG) dalam mendukung e-Government pada Biro Organisasi Sekretariat Daerah Provinsi Bali. *Jurnal Ilmu Administrasi*.
- Sinambela, L. P. (2021). *Manajemen sumber daya manusia: Membangun tim kerja yang solid untuk meningkatkan kinerja*. Bumi Aksara.
- Sugiyono. (2016). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- Sugiyono. (2023). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- The Sage Handbook of Qualitative Research Quality. (2025). In *The Sage Handbook of Qualitative Research Quality*. <https://doi.org/10.4135/9781529674354>
- Twizeyimana, J. D., & Andersson, A. (2019). The public value of e-government: A literature review. *Government Information Quarterly*, 36(2), 167–178. <https://doi.org/10.1016/j.giq.2019.01.001>
- Weigl, L., Roth, T., Amard, A., & Zavolokina, L. (2024). When public values and user-centricity in e-government collide—A systematic review. *Government Information Quarterly*, 41(3), 101956.
- Wibawa, S. (2009). *E-government dan transparansi pelayanan publik*. Gava Media.
- Widhiasthini, N. W., Utami, M. S. M., & Subawa, N. S. (2024). Reform and reformulation of public

- policy in Indonesia: What is required? *Journal of Government and Civil Society*, 8(2).
<https://doi.org/10.31000/jgcs.v8i2.12361>
- Widhiasthini, N. W., & Widiartini, N. N. D. (2025). Pengaruh kemampuan kerja, disiplin, dan motivasi terhadap kinerja karyawan pada PT. BPR Lestari Bali. *Jurnal Manajemen Dan Bisnis*.
- Wongmith, N. (2025). Addressing the digital divide: A study on the predictors of government e-service utilization in Thailand. *Telecommunications Policy*, 49(9), 103014.
<https://doi.org/10.1016/j.telpol.2025.103014>
- Yanto, H., Pujiati, A., Handayani, B. D., Ridzuan, A. R., Keshminder, J. S., & Rachman, M. A. (2024). Good Government Governance as a Moderator in Achieving Sustainable Development Goals in Indonesia. *International Journal of Sustainable Development and Planning*, 19(2).
<https://doi.org/10.18280/ijstdp.190228>