

## The Effect of Employee Adaptation and Government Capacity on the Success of the Regional Government Information System (SIPD)

Melia Fauzia<sup>1</sup>, Nabilah Putri Surahman<sup>2</sup>, Mhd. Nanda Rizki<sup>3</sup>, Tri Putrianis Laia<sup>4</sup>, Irawan<sup>5,\*</sup>

<sup>1,2,3,4,5</sup>Faculty of Social Sciences, Accounting Study Program, Universitas Pembangunan Panca Budi, Medan, Indonesia

E-mail: <sup>1</sup>[meliafauziah497@gmail.com](mailto:meliafauziah497@gmail.com), <sup>2</sup>[nabilahputris0302@gmail.com](mailto:nabilahputris0302@gmail.com), <sup>3</sup>[mhdnandarizki32@gmail.com](mailto:mhdnandarizki32@gmail.com),

<sup>4</sup>[triputrianis.laia@student.uhn.ac.id](mailto:triputrianis.laia@student.uhn.ac.id), <sup>5,\*</sup>[irawan@dosen.pancabudi.ac.id](mailto:irawan@dosen.pancabudi.ac.id)

\*E-mail Corresponding Author: [irawan@dosen.pancabudi.ac.id](mailto:irawan@dosen.pancabudi.ac.id)

### ABSTRACT

*This study aims to formulate a conceptual model that explains the influence of employee adaptation and government capacity on the success of implementing the Regional Government Information System (SIPD). The main issues identified include uneven levels of employee adaptation to digital system changes, limited technical and managerial competencies among public officials, and institutional capacity constraints within local governments that do not yet fully support the optimal utilization of SIPD. In addition, a gap remains between the intended objectives of SIPD implementation as an instrument for integrating regional planning and financial management and the realities of its operational execution. To address these issues, this study employs a conceptual-exploratory research design using a conceptual modeling approach and content analysis, strengthened by a comprehensive literature review, analysis of regulations related to SIPD, and synthesis of recent research findings in the field of e-government and public sector information systems. The analytical techniques include identifying dimensions of employee adaptation, evaluating government capacity encompassing human resources, institutional arrangements, and technological support, as well as conducting gap analysis to formulate the key determinants of SIPD success. The expected outcome of this study is a conceptual model that illustrates the logical relationships between employee adaptation, government capacity, and SIPD success, which can serve as a foundation for policy formulation aimed at enhancing public sector capabilities and strengthening digital governance in local governments.*

**Keywords:** Employee Adaptation; Local Government Capacity; SIPD Success; Regional Government Information System (SIPD)

### I. INTRODUCTION

The development of information technology has driven fundamental changes in how local governments perform administrative functions (Perlingeiro, 2021), planning, and public financial management. The digitalization of government processes is no longer viewed merely as a technical innovation, but rather as a strategic instrument for strengthening governance oriented toward transparency, accountability (Amin & Hasanuddin, 2025), and organizational effectiveness in the public sector. In this context, government information systems play a crucial role as a bridge between public policy, administrative processes, and rational, integrated, data-driven decision-making.

As part of the regional public financial management reform agenda (Suyadi et al., 2022),

the Government of Indonesia has developed the Regional Government Information System (SIPD) as a national platform that integrates development planning, budgeting, administration, accounting, and financial reporting processes into a single unified system. The development of SIPD aims to address the fragmentation of local government financial information systems that were previously operated separately, which often resulted in data inconsistencies, reporting delays, and weak linkages between planning and budget realization. Through this integration, SIPD is expected to improve the quality of local public financial management while strengthening fiscal accountability and the performance of local governments (Ritonga & Dian, 2025).

Nevertheless, empirical evidence from the operational level indicates that the normative objectives of SIPD have not yet been fully achieved. Many local

governments continue to face significant challenges (Atluri et al., 2023) in utilizing SIPD, including disparities in readiness across regions, variations in staff competencies, limitations in technological infrastructure, and weak institutional support. In practice, SIPD is frequently treated as an administrative tool to fulfill reporting obligations to the central government rather than as a strategic system optimally utilized for decision-making processes, performance control, and regional financial planning. This phenomenon reflects (Norris, 2023) a clear gap between the integrated system design and its implementation in practice.

One critical factor influencing the success of SIPD implementation is the ability of employees to adapt to digitally based work system changes. Employee adaptation encompasses individual readiness to accept change, the ability to learn new technologies (Kumar et al., 2021), flexibility in adjusting work procedures, as well as attitudes and perceptions toward organizational innovation. Employees with low levels of adaptation tend to experience difficulties in understanding and utilizing system features effectively, which may reduce the quality of information generated and hinder the effectiveness of SIPD as a regional financial management tool. Consistent with the Unified Theory of Acceptance and Use of Technology (UTAUT), user behavior and attitudes are key determinants of information system success.

In addition to individual factors (Maier et al., 2021), the capacity of local governments as public organizations is also a major determinant of SIPD implementation success. Government capacity is not limited to the number and competencies of human resources but also includes institutional strength, clarity of organizational structures and authority distribution, leadership support, adequacy of information technology infrastructure, and consistency of internal regulations and policies. Local governments with strong institutional capacity are generally better equipped to manage systemic change, coordinate across organizational units (Krieger et al., 2021), and ensure the sustainable and effective use of government information systems.

From an academic perspective, research

on information system success has been extensively developed through various theoretical models, one of the most prominent being the DeLone and McLean Information System Success Model (Charoensukmongkol & Phungsoonthorn, 2020). This model emphasizes that system quality, information quality, and service quality influence system use and user satisfaction, which ultimately affect net organizational benefits. However, previous studies indicate that the determinants of information system success in the public sector are highly contextual and do not always yield consistent findings. Several studies highlight the importance of human resources and organizational capacity, while others suggest that their effects are mediated by factors such as organizational culture, top management support, and the institutional characteristics of the public sector.

In the context of SIPD implementation, empirical and conceptual studies that explicitly integrate employee adaptation and local government capacity within a single analytical framework remain relatively limited. Most existing research focuses on technical system aspects or regulatory compliance evaluations, without comprehensively explaining how the interaction between individual and organizational factors influences the success of SIPD implementation. This condition indicates a clear research gap concerning the need for a conceptual model that simultaneously explains the roles of employee adaptation and government capacity in the context of local government information systems.

The urgency of this study is further reinforced by regulations mandating the use of SIPD across all stages of local public financial management, as stipulated in Government Regulation Number 12 of 2019 on Regional Financial Management and its implementing regulations. These regulations emphasize not only formal system usage but also the enhancement of human resource and institutional capacity to ensure that the implemented system delivers substantive benefits in improving performance and accountability. Without adequate employee adaptation and strong institutional capacity, SIPD implementation risks becoming merely an administrative compliance exercise without generating tangible improvements in the quality of local financial governance.

Based on these empirical phenomena, inconsistencies in prior research findings, and policy demands in regional financial management, this study considers it essential to formulate a conceptual model that explains the relationship between employee adaptation, local government capacity, and the success of SIPD implementation. The novelty of this study lies in integrating employee adaptation as an individual

behavioral dimension and local government capacity as an institutional dimension into a single conceptual model of SIPD success, specifically contextualized within the implementation of SIPD in Indonesia's local public financial management system. Accordingly, this study is expected to contribute theoretically to the development of public sector information systems literature while also offering practical implications for local governments in designing strategies to enhance staff capacity and strengthen institutional frameworks to ensure the sustainable success of digital government transformation.

## II. RESEARCH METHODOLOGY

### A. *Technology Acceptance Model (TAM)*

The Technology Acceptance Model (TAM) is a theoretical framework that explains individual acceptance and use of information technology through two primary constructs: perceived usefulness and perceived ease of use. Perceived usefulness refers to the extent to which a user believes that a system will enhance job performance, while perceived ease of use describes the degree to which a system is perceived as easy to understand and operate. TAM emphasizes that perceptions of usefulness and ease of use influence users' attitudes and behavioral intentions toward using a system, which subsequently affect actual system usage and the success of information system implementation. This model is highly relevant to information systems in the public sector, including the Regional Government Information System (SIPD).

### B. *Information System Success*

An information system is defined as a set of interrelated components, including hardware, software, databases, procedures, and human resources, that function to collect, process, store, and distribute information in order to support decision-making, coordination, and control within an organization.

In the public sector context, information systems play a strategic role in enhancing efficiency, transparency, and accountability in government administration. One manifestation of this role is the implementation of the Regional Government Information System (SIPD) as a nationally integrated system designed to support

regional development planning, budgeting, administration, accounting, and financial reporting. SIPD was developed to integrate all stages of regional financial management electronically, thereby addressing system fragmentation and improving the quality of local financial governance in accordance with prevailing regulations.

The success of SIPD implementation is determined not only by technical system aspects but also by the overall success of the information system, which is reflected in system quality, information quality, service quality, system use, user satisfaction, and net benefits to the organization, as conceptualized in the DeLone and McLean Information System Success Model.

Accordingly, SIPD success can be understood as the system's ability to produce high-quality information, ensure ease of use, and deliver tangible benefits in improving performance, accountability, and effectiveness in local government financial management.

### C. *Employee Adaptation*

Employee adaptation refers to an individual's ability to adjust to changes in the work environment, including changes in technology, organizational procedures, and regulations. In information system implementation, employee adaptation is a critical factor, as technology-based work system changes often require shifts in mindset, skills, and work habits.

According to organizational change theory, the success of technology implementation is strongly influenced by user readiness and acceptance. Employees with high levels of adaptation tend to be more open to change, demonstrate stronger learning motivation, and are better able to overcome both technical and non-technical barriers in using information systems.

In the context of SIPD, employee adaptation includes the ability to understand system features, willingness to participate in training programs, and positive attitudes toward digitalization policies in regional financial management. Low levels of employee adaptation may lead to suboptimal system utilization, data entry errors, and resistance to system use. Therefore, employee adaptation is regarded as a key determinant of SIPD success.

### D. *Local Government Capacity*

Local government capacity refers to the ability of government institutions to perform their duties and functions effectively. This capacity encompasses human resources, organizational structure, policy support, budget availability, and information technology infrastructure.

In public administration literature, institutional capacity is considered a fundamental prerequisite for successful bureaucratic reform and government information system implementation. Local governments with strong capacity are more likely to provide adequate technical support, continuous training, and effective internal oversight in the application of information systems.

The implementation of SIPD requires strong local government capacity, particularly in terms of human resource readiness, leadership support, and the availability of information technology infrastructure. Without sufficient institutional capacity, SIPD risks becoming merely an administrative formality without delivering significant benefits for regional financial management.

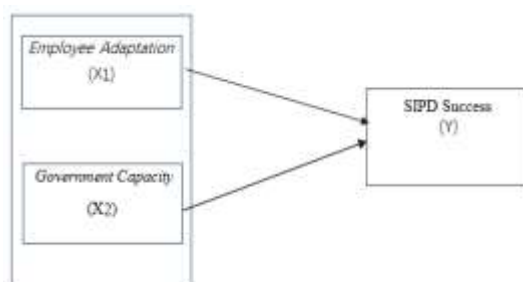
#### E. Research Conceptual Framework

Based on the literature review, this study positions employee adaptation and local government capacity as independent variables influencing the success of SIPD implementation. Employee adaptation represents the individual dimension of information system utilization, while local government capacity reflects the organizational and institutional dimension. SIPD success is understood as the outcome of the interaction between these two factors in supporting effective, accountable, and information technology-based local governance.

This conceptual framework is expected to provide a strong theoretical foundation for future research, both conceptual and empirical, and to serve as a reference for local governments in designing policies aimed at enhancing staff capacity and strengthening digital governance in local government administration.

The conceptual framework of this study is illustrated as follows:

Figure 1 Research Conceptual Framework



This study adopts a conceptual paper approach, which is a type of research aimed at developing a framework of thought, models, or theoretical propositions through the synthesis and critical analysis of relevant literature, without involving direct empirical testing. Conceptual papers emphasize the integration of concepts, theories, and findings from previous studies to construct new understandings or expand theoretical perspectives on a particular phenomenon. This approach is used to formulate conceptual relationships among variables based on logical reasoning and strong theoretical foundations, thereby producing a conceptual model that can serve as a basis for future empirical research.

A conceptual research approach is selected because the primary focus of this study is to formulate a framework capable of explaining the influence of employee adaptation and local government capacity on the success of implementing the Regional Government Information System (SIPD). This approach is particularly relevant given the limited number of previous studies that simultaneously integrate these two variables within a comprehensive conceptual model, especially in the context of local government financial governance in Indonesia.

#### F. Research Variables and Operational Definitions

##### 1. Research Variables

This study employs three variables, consisting of two independent variables—Employee Adaptation and Local Government Capacity—and one dependent variable, namely SIPD Success.

##### 2. Operational Definitions

Operational definitions refer to the manner in which researchers describe and specify the variables being examined. In general, there are multiple alternative approaches to measuring variables. Therefore, operational definitions are essential to provide clarity regarding the meaning of each variable used in the study, ensuring that they can be systematically and objectively measured in accordance with the research objectives. To provide a clearer overview of the research variables, the operationalization of variables is presented in the following table:

Table 1. Operationalization of Research Variables

Variabel	Indicators	Scale
----------	------------	-------



<i>Employee Adaptation (X1)</i>	<ol style="list-style-type: none"> <li>1. Employees' ability to understand and operate the Regional Government Information System (SIPD)</li> <li>2. Employees' willingness to learn and adapt to technological changes</li> <li>3. Employees' positive attitudes toward the implementation of SIPD</li> </ol>	Interval
<i>Government Capacity (X2)</i>	<ol style="list-style-type: none"> <li>1. Availability of competent human resources</li> <li>2. Availability of information technology infrastructure</li> <li>3. Implementation of SIPD training and socialization programs</li> <li>4. Leadership support and organizational policy support</li> </ol>	Interval
<i>SIPD Success (Y)</i>	<ol style="list-style-type: none"> <li>1. Quality of information generated by SIPD</li> <li>2. Effectiveness of SIPD usage</li> <li>3. User satisfaction with SIPD</li> <li>4. Improvement in local government organizational performance</li> </ol>	Interval

### III. RESULT AND DISCUSSION

The discussion in this conceptual study is directed toward an in-depth examination of the relationship between employee adaptation and local government capacity in determining the success of implementing the Regional Government Information System (SIPD). As a mandatory and nationally integrated government information system, SIPD requires not only technical readiness but also adequate human resource preparedness and institutional capacity to ensure that the system is utilized optimally and sustainably. Accordingly, this discussion integrates theoretical perspectives, findings from prior studies, and the regulatory context to explain the dynamics of the relationships among the variables examined within the study's conceptual framework.

#### A. The Impact of Employee Adaptation on SIPD Success

The synthesis of existing literature indicates that employee adaptation plays a central role in the successful implementation of SIPD, particularly because the system fundamentally transforms local government work processes from manual and fragmented procedures into integrated digital workflows. Employee adaptation determines the extent to which public officials are able to understand system logic, follow digital workflows, and consistently utilize SIPD features in their daily tasks.

From the perspective of technology acceptance theory, employee adaptation is closely related to user behavioral aspects, such as perceived usefulness and perceived ease of use, which directly influence system usage intensity and user satisfaction. Employees who adapt effectively tend to perceive SIPD as a work-support tool that enhances efficiency and accuracy rather than merely as an administrative obligation, thereby contributing positively to the quality of local government financial information.

Conversely, low levels of employee adaptation may give rise to various implementation problems, including data entry errors, excessive dependence on specific system operators, and resistance to changes in work systems. These conditions reinforce the argument that SIPD success is not solely determined by technological sophistication but is highly dependent on the readiness and capability of public officials to adjust to digital government transformation.

#### B. The Impact of Local Government Capacity on SIPD Success

In addition to individual-level factors, this discussion emphasizes that local government capacity constitutes a structural prerequisite for successful SIPD implementation. Local government capacity reflects the ability of public organizations to provide institutional support, human resources, technological infrastructure, and consistent internal policies to ensure the sustainable utilization of government information systems.

Public administration literature suggests that local governments with strong institutional capacity are better equipped to manage systemic change, including cross-departmental coordination and the integration of planning and financial management processes.

In the context of SIPD, such capacity is reflected in the clarity of role distribution among organizational units, the presence of competent SIPD management teams, and leadership support in the form of policies and resource allocation.

Limited local government capacity is often a major cause of suboptimal SIPD utilization at the operational

level. Without adequate institutional support, SIPD tends to be used minimally to meet regulatory requirements rather than being leveraged as a strategic instrument for decision-making and financial performance control. These conceptual insights are consistent with the argument that organizational capacity is a key determinant of information system success in the public sector.

#### IV. CONCLUSION

The success of implementing the Regional Government Information System (SIPD) results from the interaction between the individual readiness of public officials and the institutional capacity of local governments. Employee adaptation is a key factor, as it determines officials' ability to accept change, utilize technology, and effectively perform system-based work processes. At the same time, local government capacity encompassing human resource competence, leadership support, technological infrastructure, and an adequate policy framework serves as the structural foundation for the sustainable use of SIPD. Accordingly, SIPD success is not determined solely by the system's technical aspects, but also by the synergy between employee adaptation and organizational capacity in supporting transparent, accountable, and information technology based local public financial governance.

#### V. RECOMMENDATIONS

Based on the findings of this conceptual study, it is recommended that local governments enhance employee adaptation to SIPD through continuous training programs, technical assistance, and the strengthening of a digitally oriented work culture, accompanied by efforts to reinforce institutional capacity. These efforts should include improving human resource competencies, strengthening leadership support, ensuring the availability of information technology infrastructure, and maintaining consistency in internal policies. In addition, policymakers at the central government level are expected to emphasize not only regulatory compliance but also the continuous development of local government capacity and adaptive capabilities. For future researchers, this study may serve as a foundation for conducting

empirical tests of the proposed conceptual model and for expanding the analysis by incorporating additional relevant variables in order to enrich understanding of the determinants of successful SIPD implementation in local governments.

#### VI. REFERENCES

- Amin, M., & Hasanuddin, M. (2025). The Role of Brand Trust and Social Media Engagement in Driving Purchase Intention among Indonesian SMEs. *CESSMUDS Proceedings*, 1(1), 105–111. <https://proceeding.raskhamedia.or.id/index.php/cessmuds/article/view/18>
- Atluri, N., Beyuo, T. K., Oppong, S. A., Moyer, C. A., & Lawrence, E. R. (2023). Challenges to diagnosing and managing preeclampsia in a low-resource setting: A qualitative study of obstetric provider perspectives from Ghana. *PLOS Global Public Health*, 3(5), e0001790. <https://doi.org/10.1371/journal.pgph.0001790>
- Charoensukmongkol, P., & Phungsoonthorn, T. (2020). The effectiveness of supervisor support in lessening perceived uncertainties and emotional exhaustion of university employees during the COVID-19 crisis: the constraining role of organizational intransigence. *Journal of General Psychology*, 148(4), 1–20. <https://doi.org/10.1080/00221309.2020.1795613>
- Krieger, F., Drews, P., & Velte, P. (2021). Explaining the (non-) adoption of advanced data analytics in auditing: A process theory. *International Journal of Accounting Information Systems*, 41, 100511. <https://doi.org/10.1016/j.accinf.2021.100511>
- Kumar, V., Ramachandran, D., & Kumar, B. (2021). Influence of new-age technologies on marketing: A research agenda. *Journal of Business Research*, 125, 864–877. <https://doi.org/10.1016/j.jbusres.2020.01.007>
- Maier, A., Riedel-Heller, S. G., Pabst, A., & Lupp, M. (2021). Risk factors and protective factors of depression in older people 65+. A systematic review. *PLoS ONE*, 16(5 May), e0251326. <https://doi.org/10.1371/journal.pone.0251326>
- Norris, P. (2023). Cancel culture: Myth or reality? *Political Studies*, 71(1), 145–174.
- Perlingeiro, R. (2021). Administrative functions of implementation, control of administrative decisions, and protection of right. *British Journal of American Legal Studies*, 10(1), 1–25. <https://doi.org/10.2478/bjals-2020-0015>
- Ritonga, D. J., & Dian, S. (2025). Promoting Green Computing to The Community as A Strategy for E-Waste Reduction and Cleaner Rivers. *Prosiding Seminar Nasional Ilmu Komputer, Sosial Sains, Teknik Dan Multi-Disiplin Ilmu*, 1, 34–40.
- Suyadi, Nuryana, Z., Sutrisno, & Baidi. (2022). Academic reform and sustainability of Islamic



higher education in Indonesia. *International Journal of Educational Development*, 89, 102534.  
<https://doi.org/10.1016/j.ijedudev.2021.102534>