

Characteristics Of Human Resource Competencies On The Successful Implementation Of The Regional Government Information System (Sipd) In Improving The Quality Of Financial Reports At Uptd Pelayanan Sosial Dinas Sosial Provinsi Sumatera Utara

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Abstract

The purpose of this study is to examine the influence of human resource competency on the success of implementing the Regional Government Information System (SIPD) and its impact on the quality of financial reports at Uptd Pelayanan Sosial Dinas Sosial Provinsi Sumatera Utara. This research was conducted at Uptd Pelayanan Sosial Dinas Sosial Provinsi Sumatera Utara. The research employed a descriptive qualitative approach, with data collection techniques including in-depth interviews, participant observation, and documentation studies. The research informants consisted of structural officials, SIPD operators, planning staff, and senior employees who are directly involved in the implementation of SIPD. The findings indicate that technical competence, system knowledge, and work attitudes have a significant influence on the successful implementation of SIPD. The main obstacles identified include the lack of specific training, limited digital infrastructure, differences in perceptions among operators, and resistance from senior employees toward new technologies. The implementation of SIPD has not yet been fully optimized, as there are still discrepancies in data input, errors in planning logic, and a low level of understanding of the system workflow. Therefore, strategies to strengthen human resource competencies are required, including intensive training programs, continuous technical assistance, standardization of standard operating procedures (SOPs), and the enhancement of digital culture. This study confirms that the quality of human resources is a fundamental foundation for the success of digital government initiatives at the regional level.

Keywords: Human Resource Competency, SIPD, Information System Implementation, Regional Government, Qualitative Research

I. INTRODUCTION

According to Government Regulation No. 101 of 2000, good governance is defined as governance that develops and applies the principles of professionalism, accountability, transparency, excellent public service, democracy, efficiency, effectiveness, the rule of law, and public acceptance. The phenomenon of local government financial reports in Indonesia is an interesting subject for study. This interest arises because, to date, government financial reports still present numerous inconsistencies, such as incomplete and inaccurate expenditure accountability, non-compliance in the realization of official travel expenditures, and discrepancies in the volume of physical work compared to established regulations. These phenomena have increased public demands for the implementation of good governance. Consequently, both central and regional governments are encouraged to improve the national financial management system and its supporting aspects. High-quality financial reports cannot be separated from reliable human resources with adequate

competencies. Government financial reports must comply with Government Accounting Standards (SAP) as stipulated in Government Regulation No. 24 of 2005, which was revised by Government Regulation No. 71 of 2010. Financial reports are considered to be of high quality when the information presented is understandable, free from misleading interpretations and material misstatements, presents facts honestly, and can be verified (BPK, 2010).

To produce high-quality financial reports, competent personnel are required. Human resource competency is essential to ensure that financial reports meet the qualitative characteristics of financial reporting. As a result, the financial reports produced can be of high quality and useful for decision-making purposes. According to the Decree of the Head of the National Civil Service Agency (BKN) No. 46A of 2003 concerning the Guidelines for the Preparation of Competency Standards for Structural Positions of the State Civil Apparatus (ASN), competency is defined as the abilities and characteristics possessed by a State Civil Apparatus (ASN), including knowledge, skills, and behavioral attitudes required to perform job duties, enabling them to carry out their responsibilities professionally, effectively, and efficiently. One

indicator of human resource competency can be observed through the timeliness of submitting Local Government Financial Reports (LKPD) to the Supreme Audit Institution (BPK-RI), which reflects the proficiency of human resources in managing financial reporting.

II. LITERATURE REVIEW

A. Contingency Theory

Contingency Theory argues that there is no single best method for managing systems or organizations; rather, success depends on the extent to which an organization's internal strategies are aligned (fit) with the situational conditions or contextual factors it faces. Scholars such as Lawrence and Lorsch (1967) developed this concept by emphasizing that management must optimally integrate the organization with its environment. In the context of this study conducted at Uptd Pelayanan Sosial Dinas Sosial Provinsi Sumatera Utara, although the Regional Government Information System (SIPD) is a standardized system, the success of its implementation is contingent upon internal organizational conditions.

The main contingency factors identified in this study include uneven technical competencies among human resources, infrastructure constraints such as low computer specifications and unstable internet connectivity, as well as resistance from senior employees toward the adoption of new technologies. Mintzberg (1979) also supports the view that organizational structure and strategy must be adjusted (contingent) based on environmental factors.

Therefore, Contingency Theory emphasizes that to achieve high-quality outputs, such as accurate financial reports, organizations must design context-specific strategies to address these internal challenges. These strategies include adaptive efforts such as intensive training tailored to employees' competency levels, upgrading hardware infrastructure, and providing specialized technical assistance to enhance system utilization and acceptance.

Technology acceptance. The success of SIPD is therefore viewed as the result of an organization's ability to manage these contingency variables, in which human resource competency acts as the most critical adjustment element.

B. Human Resource Competency

Competency refers to work-related characteristics and capabilities that encompass aspects of knowledge, skills, and attitudes in accordance with job duties and functions (BPK, 2013). Competency can also be viewed as

specific attributes such as knowledge, abilities, and skills that are utilized to demonstrate performance in a particular job in order to accomplish certain tasks carried out by an individual (Surbagyo, 2020).

According to the Decree of the Head of the National Civil Service Agency (BKN) No. 46A of 2007, competency is defined as the abilities and characteristics possessed by a civil servant in the form of knowledge, skills, and behavioral attitudes required to perform job duties, enabling the civil servant to carry out their responsibilities professionally, effectively, and efficiently.

Human resource competency refers to the abilities possessed by an employee that are related to knowledge, skills, and attitudes, which directly influence performance and enable the achievement of desired organizational objectives.

C. Regional Government Information System (SIPD)

The Regional Government Information System (SIPD), as stipulated in Minister of Home Affairs Regulation No. 70 of 2019, is a system designed to manage information related to regional development, regional financing, and other data collected by local governments, which can be accessed and utilized in the implementation of regional development.

SIPD can be utilized by provincial, regency/municipal, and sub-district governments at both the reporting and accounting levels to promote the achievement of the expected level of accountability. To support this objective, the SIPD software technology was developed. The scope of the Regional Government Information System (SIPD) includes regional development information, regional financial information, and other governmental information (Vitriana & Nidya, 2022). According to Dione and Utami (2020), the SIPD information system can be used to support the integration of data utilization related to development progress across government institutions (Dione, 2020). The Regional Government Information System (SIPD) also functions as a medium of public accountability, enabling the public to evaluate government performance, assess development programs, and examine development achievements.

Minister of Home Affairs Regulation of the Republic of Indonesia No. 70 of 2019 explains that the objectives of implementing SIPD are as follows:

1. To improve the quality of regional development planning, control, and evaluation through the availability of accurate, up-to-date, and accountable regional development data and information.
2. To establish a legally recognized development database for all regions, serving as a primary data input for both central and regional development planning.
3. To function as an instrument for managing data and information and for evaluating performance achievements on a periodic basis.

4. To serve as an analytical instrument for identifying strategic issues and analyzing the general conditions of regional development, as well as regional economic and financial conditions.

Based on the above, this study considers the quality of financial reports to be highly important, supported by competent human resources and an effective regional government information system.

SIPD consists of numerous interconnected features; therefore, errors in data input in one component may affect the entire planning and reporting documents. Consequently, the success of SIPD implementation cannot be separated from the ability of human resources to understand the system structure and process data accurately. Furthermore, the implementation of SIPD entails changes in bureaucratic work patterns. Planning and budgeting processes that were previously conducted manually must now be carried out digitally and in real time.

These changes require adjustments in employees' mindsets, work culture, and digital literacy capabilities. Employees are expected not only to master administrative aspects but also to possess analytical skills and adequate information technology competencies.

III. CONCEPTUAL FRAMEWORK

The conceptual framework of this study explains that human resource competency is the primary factor influencing the successful implementation of the Regional Government Information System (SIPD). These competencies include technical skills, knowledge of the system and relevant regulations, as well as work attitudes toward technology acceptance. Adequate human resource competency, supported by infrastructure and organizational support, will facilitate the effective implementation of SIPD. The successful implementation of SIPD subsequently leads to improvements in the quality of financial reports, which are accurate, timely, relevant, and accountable.

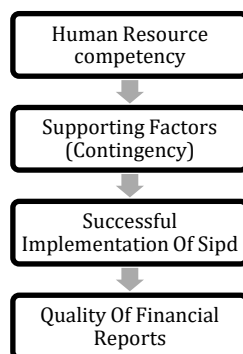


Figure 1. Conceptual Framework Diagram

IV. RESEARCH METHODOLOGY

This study employs a descriptive qualitative approach to obtain an in-depth understanding of the influence of human resource (HR) competencies on the successful implementation of the Regional Government Information System (SIPD) at the Uptd Pelayanan Sosial Dinas Sosial Provinsi Sumatera Utara. This approach was chosen to explore employees' experiences, perceptions, and capabilities in operating SIPD within a real work context.

Research informants were selected using purposive sampling, involving personnel directly engaged in the planning, budgeting, and operational processes of SIPD, including structural officials, SIPD operators, planning staff, and technical personnel. The number of informants was determined until data saturation was achieved.

Data were collected through semi-structured in-depth interviews, direct observation, and documentation review to obtain information on technical competencies, regulatory understanding, challenges in using SIPD, organizational support, and supporting facilities. The operational definitions of the research variables are presented in Table 1. Data analysis was conducted using the Miles and Huberman model, which consists of data reduction, data display, and conclusion drawing. Data validity was ensured through source triangulation, technique triangulation, and member checking to ensure that the research findings are scientifically accountable.

Table 1. Operational Definitions of Research Variables

No	Variable / Term	Definition
1	Human Resource Competence	Employees' knowledge, technical skills, and work attitudes in operating SIPD.
2	SIPD	An integrated information system used to support regional planning, budgeting, and financial reporting.
3	SIPD Implementation	The application and use of SIPD in daily administrative and financial processes.
4	Technical Competence	Employees' ability to operate SIPD features and modules accurately.
5	Regulatory Understanding	Employees' understanding of regulations and SOP related to SIPD.
6	Organizational Support	Institutional support in the form of training, facilities, and infrastructure.
7	SIPD Implementation Success	The effectiveness of SIPD use reflected in timeliness, accuracy, and reporting efficiency.

V. RESULTS DISCUSSION

A. Technical Competency of Human Resources in Operating SIPD

The interview results indicate that most SIPD operators at the Uptd Pelayanan Sosial Dinas Sosial Provinsi Sumatera Utara possess basic skills in operating the application. However, they have not yet fully mastered all technical features of SIPD, particularly the planning, budgeting, and reporting modules. This condition is reflected in the frequent occurrence of data input errors, delays in data uploading, and a high level of dependence on technical assistance.

These findings are consistent with the competency model proposed by Spencer and Spencer (1993), which states that technical competency is a fundamental element in supporting employee performance effectiveness. Limitations in technical competency cause the SIPD implementation process to be suboptimal and create a strong need for more intensive training programs. This is further supported by Davis (1989), who argues that perceived ease of use is strongly influenced by users' ability to adapt to new technologies.

B. System Knowledge and Understanding of Regulations

The study found that employees have varying levels of understanding of the regulations governing the use of SIPD, such as Minister of Home Affairs Regulation No. 86 of 2017 and the SIPD guidelines issued by the Ministry of Home Affairs. Employees with a strong understanding of these regulations are able to perform data input more accurately and in accordance with established standards, whereas those with limited regulatory understanding tend to make administrative errors.

These findings indicate that the success of system implementation is not solely determined by technical capability but is also influenced by employees' conceptual knowledge and procedural understanding (Wibowo, 2017). DeLone and McLean (2003) emphasize that system quality and information quality are highly dependent on users' understanding of applicable procedures and regulations. This knowledge gap highlights the need for periodic regulatory socialization to ensure that SIPD users possess adequate system literacy.

C. Work Attitudes and Technology Acceptance

Employees' attitudes toward the use of SIPD vary. Some employees are enthusiastic and adapt quickly, while others exhibit resistance,

particularly those with longer tenure who are accustomed to manual methods. This resistance hampers the data input process, as these employees require more intensive assistance.

According to Rogers (2003), differences in the level of technology adoption are influenced by perceptions of usefulness and ease of use. Employees who perceive greater benefits from SIPD tend to adapt more easily, whereas those who perceive SIPD as complex are more likely to resist change.

These findings reinforce the notion that technology acceptance is a critical variable influencing the successful implementation of information systems (Davis, 1989).

D. Organizational Support and Infrastructure Availability

The observation results indicate that organizational support in the form of computer facilities, internet connectivity, and training for SIPD operators remains insufficient. Several computers have low specifications, which often results in slow system performance when accessing SIPD. In addition, unstable internet connections frequently cause delays in the data input process.

DeLone and McLean (2003) emphasize that service quality and technical support significantly influence the success of information system implementation. Network instability and inadequate infrastructure readiness therefore constitute major obstacles to optimizing SIPD implementation within this organizational unit.

Accordingly, infrastructure readiness and supportive internal policies are critical factors in determining the successful implementation of the system.

E. Analysis of the SIPD Implementation Model

Based on the field findings, it can be concluded that the success of SIPD implementation at the Uptd Pelayanan Sosial Dinas Sosial Provinsi Sumatera Utara specifically at the Regional Integrated Service Unit (UPTD) for Social Services—is influenced by four main components:

- Technical competency → determines the ability to use system features
- System and regulatory knowledge → determines the accuracy of data input and data compliance
- Work attitude → determines the level of acceptance of SIPD
- Organizational support and infrastructure → determines the smooth operation of the system

These four aspects are aligned with the human resource competency theory proposed by Spencer and Spencer (1993) and the information system success model developed by DeLone and McLean (2003). Accordingly, the enhancement of human resource competency is the most dominant factor in determining the success of SIPD implementation, as the system can only operate effectively when it is utilized by competent

and prepared human resources and supported by adequate infrastructure.

F. Summary of Research Findings on the Implementation of SIPD at the Uptd Pelayanan Sosial Dinas Sosial Provinsi Sumatera Utara

The implementation of the Regional Government Information System (SIPD) indicates that most operators have mastered the basic system functions; however, difficulties persist in using advanced modules, leading to data entry errors and delays. This condition reflects a gap in technical human resource competencies that significantly affects the performance of government information systems (Venkatesh et al., 2020; Susanto & Meiryani, 2021).

Employees' understanding of SIPD regulations and procedures remains uneven, which adversely affects the accuracy and consistency of regional financial reporting. Personnel with adequate regulatory knowledge tend to produce more accurate and reliable financial information (Ritonga et al., 2020; Wibowo & Darmanto, 2022).

From a technology acceptance perspective, perceived usefulness and perceived ease of use are the primary determinants of the sustainable utilization of SIPD. Resistance to change is still evident among some employees, thereby limiting the optimal use of the system (Dwivedi et al., 2020; Pratama & Yusnaini, 2023).

Limitations in infrastructure, organizational support, and uneven training provision constitute major barriers to SIPD implementation. These factors have a direct impact on the effectiveness and overall success of information systems in the public sector (Petter et al., 2020; Nugroho et al., 2024).

Internal coordination and the clarity of standard operating procedures remain suboptimal, resulting in inconsistencies in data entry across organizational units. Although SIPD has improved the efficiency and transparency of financial reporting, its effectiveness continues to depend on system quality and the sustainable capacity of human resources (Setiawan & Kurniawan, 2021; Hapsari & Rahman, 2025).

VI. CONCLUSION

This study shows that the implementation of the Regional Government Information System (SIPD) at the Social Service Office, specifically the Regional Integrated Service Unit UPTD Pelayanan Sosial Dinas Sosial Provinsi Sumatera Utara is strongly influenced by the competence of human

resources as the main users of the system. Uneven technical competencies, varying levels of understanding of SIPD regulations and workflows, as well as diverse work attitudes are the main factors affecting the effectiveness of SIPD utilization. In addition, infrastructure limitations, such as low-specification computers and unstable internet connectivity, further hinder the data input process, particularly during the planning and reporting stages.

The SIPD implementation process cannot yet be considered optimal, as it still relies heavily on a limited number of core operators who possess higher competencies than other employees. Nevertheless, SIPD has contributed positively to improving transparency, data accuracy, and reporting efficiency. These findings confirm that human resource competence, technology acceptance attitudes, and organizational and infrastructure support are interrelated elements that jointly determine the success of SIPD implementation.

VII. RECOMMENDATIONS

Based on the research findings, the agency is advised to enhance human resource capacity through regular training programs focused on understanding and mastering the modules of the Regional Government Information System (SIPD), particularly in planning, budgeting, and reporting, with training materials adjusted to the varying competency levels of employees. Furthermore, understanding of SIPD regulations and Standard Operating Procedures (SOPs) should be strengthened through continuous internal socialization of applicable regulations, including Ministry of Home Affairs Regulation Number 86 of 2017 and SIPD guidelines issued by the Ministry of Home Affairs, accompanied by the development of integrated internal SOPs to prevent differences in interpretation among operators.

Efforts to improve technology acceptance should also be undertaken by providing intensive assistance and guidance to employees who still face difficulties in using SIPD, thereby enhancing their confidence, mental readiness, and adaptability to the system. In addition, strengthening work facilities and infrastructure requires attention through the upgrading of computer equipment and improvement of internet network quality to support smooth data processing and reduce technical obstacles. Finally, the agency is expected to enhance internal coordination and communication by establishing a SIPD technical team responsible for providing assistance, ensuring data consistency, and coordinating inter-departmental needs, so that task execution becomes more effective and SIPD implementation can be carried out optimal

VIII. REFERENCES

- Arikunto, S. (2016). *Research Procedures: A Practical Approach*. Jakarta: PT Rineka Cipta.
- Rukiyah, A. Y., & Yulianti, L. (2014). *Midwifery Care During Pregnancy Based on the Competency-Based Curriculum*. East Jakarta: CV. Trans Info Media.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30.
- Laudon, K. C., & Laudon, J. P. (2018). *Management Information Systems: Managing the Digital Firm* (15th ed.). Pearson.
- Mangkunegara, A. A. A. P. (2015). *Human Resource Management*. Bandung: Remaja Rosdakarya.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook* (3rd ed.). SAGE Publications.
- Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). Free Press.
- Spencer, L. M., & Spencer, S. M. (1993). *Competence at Work: Models for Superior Performance*. John Wiley & Sons.
- Sugiyono. (2019). *Qualitative, Quantitative, and R&D Research Methods*. Bandung: Alfabeta.
- Wibowo. (2017). *Performance Management*. Jakarta: PT RajaGrafindo Persada.
- Robbins, S. P., & Judge, T. A. (2017). *Organizational Behavior* (17th ed.). Pearson Education.
- Rohmawati, L. (2019). The Influence of Female Commissioners and Directors on Bank Risk with CEO Power as a Moderating Variable (A Study of Indonesian Commercial Banks). *Syntax Literate: Indonesian Scientific Journal*, 4(9), 26–42.
- Ayoib, C. A., & Nosakhare, P. O. (2015). Ministry of Home Affairs of the Republic of Indonesia. (2017). Regulation of the Minister of Home Affairs Number 86 of 2017 on Procedures for Regional Development Planning, Control, and Evaluation. Jakarta.
- Wang, N. T., Huang, Y. S., Lin, M. H., Huang, B., Perng, C. L., & Lin, H. C. (2016). Chronic hepatitis B infection and risk of antituberculosis drug-induced liver injury: A systematic review and meta-analysis. *Journal of the Chinese Medical Association*, 79(7), 368–374.
- Roeva, O. (2012). Real-world applications of genetic algorithms. In *International Conference on Chemical and Material Engineering*. Semarang, Indonesia: Department of Chemical Engineering, Diponegoro University.
- Hermanto, B. (2012). *The Effect of Training Performance, Motivation, and Length of Service on Technician Productivity at Nissan Workshops in Yogyakarta, Solo, and Semarang*. Undergraduate Thesis. Yogyakarta State University.
- Primack, H. S. (1983). Method of stabilizing polyvalent metal solutions. U.S. Patent No. 4,373,104.
- Ministry of Home Affairs of the Republic of Indonesia. (2019). *Guidelines for the Regional Government Information System (SIPD)*. Directorate General of Regional Development.
- Republic of Indonesia. (2014). Law Number 23 of 2014 on Regional Government.
- Lawrence, P. R., & Lorsch, J. W. (1967). *Organization and Environment: Managing Differentiation and Integration*. Harvard University, Graduate School of Business Administration.
- Mintzberg, H. (1979). *The Structuring of Organizations: A Synthesis of the Research*. Prentice-Hall
- Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2020). Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers*, 22(3), 719–734. <https://doi.org/10.1007/s10796-019-10030-5>
- Petter, S., DeLone, W. H., & McLean, E. R. (2020). Information systems success: The quest for the dependent variable. *Journal of Management Information Systems*, 37(1), 190–234. <https://doi.org/10.1080/07421222.2020.1705514>
- Ritonga, I. T., Sari, R. N., & Supriyanto, S. (2020). Public sector accounting reform and information quality in Indonesian local governments. *Asian Review of Accounting*, 28(3), 425–441. <https://doi.org/10.1108/ARA-01-2020-0015>
- Susanto, A., & Meiryani. (2021). User competency and performance of accounting information systems in public organizations. *International Journal of Business Information Systems*, 36(2), 234–249. <https://doi.org/10.1504/IJBIS.2021.113456>
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2020). Unified theory of acceptance and use of



technology: A synthesis and the road ahead. *Journal of the Association for Information Systems*, 21(1), 5–47.
<https://doi.org/10.17705/1jais.00589>