



THE ROLE OF HUMAN RESOURCE MANAGEMENT (HRIS) INTEGRATION AND HR SYSTEM DIGITALIZATION IN IMPROVING THE QUALITY OF EMPLOYEE TRAINING AND DEVELOPMENT

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Abstract

This study aims to analyze the role of Human Resource Information System (HRIS) integration and HR system digitalization in improving the quality of employee training and development at the Batui and Luwuk Selatan District Offices, Banggai Regency. The approach used was qualitative with data collection techniques through in-depth interviews, observation, and documentation. Data analysis was conducted using NVivo to identify key themes related to HRIS implementation, HR digitalization, and the quality of employee training. The results show that HRIS implementation is still limited to basic administrative functions and has not been optimally integrated into the HR decision-making system. HR digitalization is still in its early stages with limited digital literacy among civil servants and uneven distribution of supporting infrastructure. The quality of employee training is not fully based on competency needs analysis, making it less effective in improving employee performance. This study concludes that HRIS integration and HR digitalization play an important role in improving the effectiveness of employee training and development, but still face various challenges in its implementation. System strengthening, increasing digital competence of civil servants, and optimizing the use of HR data are needed to support more effective decision-making within the sub-district government environment.

Keywords: HRIS, HR Digitalization, Employee Training, HR Development, Human Resource Management.

INTRODUCTION

Human resource (HRM) management is a fundamental element in every organization, including the public sector, as it plays a role in managing, developing, and optimizing employee potential to effectively achieve organizational goals. In modern organizational development, management no longer focuses solely on administrative aspects, but also on competency development, improving training quality, and adapting to digital transformation. According to Sihombing et al. (2025), HRM in the digital era is required to be more adaptive through technology integration to improve the effectiveness of employee management and the quality of organizational services.

One crucial aspect of HR management is the quality of employee training and development. Training is not merely viewed as a routine activity, but as a strategic instrument for improving the competence, performance, and professionalism of civil servants. However, in practice, training quality is often suboptimal due to a lack of data-driven needs analysis and an unintegrated HR management system. Rajagukguk et al. (2025) emphasize that data-driven competency needs analysis is crucial to ensure that the training provided truly aligns with employee needs and job demands.

In today's digital era, HR system transformation is unavoidable. One key innovation supporting this transformation is the Human Resource Information System (HRIS). HRIS is a technology-based system that integrates employee data to support decision-making, training planning, and performance evaluation. According to Anggoro et al. (2025), HRIS plays a crucial role in improving HR

management efficiency because it integrates data and supports faster and more accurate decision-making.

Digitizing HR systems also has a significant impact on improving the quality of employee training and development. Digitalization enables organizations to implement technology-based training, such as *ase-learning*, *Learning Management System*(LMS), and digital competency-based training. Cahyono (2025) stated that digitizing HR processes can improve training effectiveness and human resource management efficiency because the process is more systematic, measurable, and data-driven. Thus, digitalization not only speeds up administrative processes but also improves the overall quality of HR development.

This research was conducted at the Batui and Luwuk Selatan District Offices in Banggai Regency. Both institutions play a strategic role in providing public services at the sub-district level, making human resource quality a crucial factor in supporting organizational performance. However, initial observations indicate that the implementation of HRIS and the digitization of HR systems in both sub-districts is still suboptimal. Training is still conducted conventionally and not fully based on an integrated information system.

Surveys show that some employees have not received training tailored to their individual competency needs. Furthermore, employee data remains scattered and unintegrated into a single digital system, complicating employee evaluation and development planning. This situation indicates that HRIS integration and HR digitalization have not been optimally implemented in supporting improvements in the quality of employee training and development.

Human Resource Information System (HRIS) integration and HR system digitization are important factors that require further study. According to Lase et al. (2025), integrated HRIS implementation can improve HR management efficiency while strengthening employee competency development systems. Therefore, this study is important to analyze the role of HRIS integration and HR digitization in improving the quality of employee training and development at the Batui and Luwuk Selatan District Offices, Banggai Regency.

The current developments in human resource management in the government sector indicate a significant shift toward digitalization of work systems, including in employee training and development. The implementation of a Human Resource Information System (HRIS) has begun to support employee data integration, but its implementation is not yet evenly distributed across agencies, particularly at the sub-district level. At the Batui and Luwuk Selatan Sub-district Offices in Banggai Regency, a visible phenomenon is the continued dominance of manual work systems in employee data management, including in training planning and evaluation. This indicates a gap between the demands of digital transformation and actual conditions on the ground.

Another emerging phenomenon is the mismatch between the training programs provided and employee competency needs. Many training activities remain ceremonial and are not based on needs

analysis supported by an integrated information system. As a result, the training's impact on improving employee performance is less than optimal. Furthermore, some employees do not fully understand the use of existing digital HR systems, resulting in suboptimal utilization of HRIS in supporting sustainable competency development.

Based on these conditions, there are several major problems in human resource management at the Batui and Luwuk Selatan District Offices in Banggai Regency. The first problem is the lack of comprehensive integration of the HR information system, resulting in scattered personnel data not being managed within a single, integrated HRIS system. This condition hinders rapid and accurate decision-making, particularly in employee training and development planning. The second problem is the low effectiveness of employee training and development due to the suboptimal mapping of data-based competency needs. Implemented training programs do not fully refer to systematic needs analysis, so they are often irrelevant to employee duties and functions. Furthermore, there are still limitations in the use of digital technology by the apparatus, which causes the HR digitalization process to proceed slowly and has not had a significant impact on improving the quality of employee performance.

Several studies have shown that the integration of Human Resource Information Systems (HRIS) and HR digitalization plays a crucial role in improving the effectiveness of employee management, particularly in training and competency development. Anggoro et al. (2025) explain that HRIS can improve HR management efficiency through data integration that supports fast and accurate information-based decision-making. Similarly, Lase et al. (2025) found that HRIS implementation significantly contributes to improving HR management effectiveness by simplifying administrative processes and strengthening employee information systems. Furthermore, Rajagukguk et al. (2025) emphasized that data-driven training needs analysis integrated into HRIS can increase the relevance of employee competency development programs. Cahyono (2025) also stated that the digitalization of HR processes contributes to increased training efficiency by enabling a more structured and technology-based learning system. Meanwhile, Sihombing et al. (2025) added that digital transformation in HR management not only improves efficiency but also strengthens the quality of sustainable human resource development. These findings reinforce that HRIS integration and HR digitalization are strategic factors in improving the quality of employee training and development in various organizations, including the government sector.

Although various studies have shown that Human Resource Information Systems (HRIS) and HR digitalization have a positive impact on the efficiency of human resource management, most studies still focus on the context of large organizations or industrial sectors. Research such as that presented by Anggoro et al. (2025) and Lase et al. (2025) emphasizes administrative efficiency and HR data management in general, but has not specifically examined its impact on the quality of employee training and development at the sub-district government level. Furthermore, studies by

Rajagukguk et al. (2025) and Cahyono (2025) focus more on the technical aspects of HR digitalization, but have not yet deeply integrated the relationship between HRIS systems and improving the quality of training based on contextual competency needs in the region.

Sihombing et al.'s (2025) research has indeed discussed digital transformation in HR management, but it is still general in nature and has not specifically examined implementation in the sub-district government bureaucracy environment which has limited digital HR infrastructure and capacity. This indicates a research gap, namely the lack of a comprehensive study linking HRIS integration and HR digitalization with the quality of employee training and development in the context of local government, particularly in the Batui and Luwuk Selatan Sub-district Offices of Banggai Regency.

The novelty of this research lies in its analytical focus, which simultaneously integrates the Human Resource Information System (HRIS) and HR digitalization to improve the quality of employee training and development at the sub-district government level. This research not only emphasizes the efficiency of the HR system but also examines how this technology integration can create a training system based on the actual competency needs of employees. Furthermore, this research provides an empirical contribution to the local context of regional government, which has rarely been studied in the HR digitalization literature.

Thus, this research is expected to provide a new conceptual model regarding the relationship between HRIS, HR digitalization, and the quality of employee training within the sub-district bureaucracy. This model is expected to serve as a reference in developing a more adaptive, data-driven HR management system that aligns with the needs of digital transformation in the local government sector.

LITERATURE REVIEW

Human Resource Information System (HRIS)

A Human Resource Information System (HRIS) is a technology-based system that integrates HR data to support administrative functions, analysis, and strategic decision-making. HRIS functions not only as a recording tool but also as a data-driven decision support system that can improve the effectiveness of employee management. According to Setiawan (2024), HRIS improves the accuracy of HR data. According to Nugroho (2023), HRIS accelerates the decision-making process. According to Hartono (2022), HRIS significantly improves the efficiency of employee management.

Digitalization of Human Resource Management

HR digitalization is the process of transforming human resource management functions from manual systems to integrated digital technology-based systems. This digitalization includes automating recruitment, training, performance appraisals, and employee data management. According to Pramudya (2024), digitalization increases the efficiency of HR processes. According to Wibowo

(2023), digitalization accelerates personnel services. According to Lestari (2022), digitalization creates transparency and accountability in the HR management of public organizations.

Employee Training and Development

Employee training and development is a systematic process to improve individual competencies, skills, and knowledge to align with organizational needs. Training effectiveness is largely determined by the alignment between competency needs and the training materials provided. According to Kurniawan (2024), needs-based training improves employee performance. According to Sari (2023), human resource development strengthens the professionalism of civil servants. According to Putra (2022), targeted training improves overall organizational effectiveness.

METHOD

This study uses a qualitative approach to deeply understand the role of Human Resource Information System (HRIS) integration and HR system digitalization in improving the quality of employee training and development. This approach was chosen because it allows for a comprehensive exploration of informants' meanings, experiences, and perceptions within the context of sub-district government organizations. Data analysis was assisted by NVivo to improve the systematization of qualitative data processing.

Types and Approaches of Research

This research uses a descriptive qualitative approach. This approach aims to describe in-depth phenomena regarding the implementation of HRIS and HR digitalization in supporting employee training. According to Creswell (2022), qualitative research is suitable for understanding complex social phenomena in a natural context. The focus of this research is on meaning and process, rather than statistical hypothesis testing, making it highly relevant to analyzing real-world conditions at the Batui and Luwuk Selatan District Offices in Banggai Regency.

Research Location and Subjects

This research was conducted at the Batui District Office and the Luwuk Selatan District Office, Banggai Regency. The locations were selected purposively because both institutions are currently undergoing a digital transformation in HR management. The research subjects consisted of district employees, structural officials, and personnel system operators directly involved in HRIS management and employee training. According to Sugiyono (2023), the selection of informants in qualitative research must be based on direct involvement in the phenomenon being studied.

Data Collection Techniques

Data was collected through three main techniques: in-depth interviews, observation, and documentation. Interviews were conducted to gather information related to HRIS implementation and employee training. Observations were used to directly observe the HR system's work processes within the sub-district. Documentation was used to collect supporting data such as training reports, personnel files, and policy documents. According to Miles, Huberman, and Saldaña (2022), a combination of data collection techniques in qualitative research is essential to increase the validity of findings.

Data Analysis Techniques (NVivo)

Data analysis was conducted using NVivo software to assist with coding, categorization, and the discovery of key themes from the qualitative data. The analysis process included data reduction, data presentation, and conclusion drawing. NVivo was used to group interview results based on themes such as HRIS integration, HR digitalization, and employee training quality. According to Bazeley and Jackson (2023), the use of qualitative analysis software such as NVivo can improve data processing accuracy and accelerate the process of identifying research patterns.

Data Validity and Research Stages

The validity of the data in this study was tested through source triangulation, technical triangulation, and member checking. Triangulation was conducted to ensure the consistency of information from various data sources. Member checking was conducted by reconfirming the interview results with informants to ensure the consistency of the researcher's interpretation. According to Lincoln and Guba (2022), validity in qualitative research is crucial to ensure the credibility, transferability, dependability, and confirmability of research data.

The research stages include: (1) problem identification, (2) field data collection, (3) data processing using NVivo, (4) thematic analysis, and (5) drawing conclusions. These stages are carried out systematically so that the research results can describe the actual conditions of HRIS implementation and HR digitalization in supporting the quality of employee training at the research location.

RESULTS AND DISCUSSION

Research result

The results of this study were obtained through in-depth interviews, participant observation, and documentation studies at the Batui and Luwuk Selatan District Offices in Banggai Regency. Data were analyzed using NVivo to identify key themes related to HRIS integration, HR digitalization, and

the quality of employee training. The results are presented in the form of specific themes that reflect the actual implementation of digital HR systems in the field.

Utilization of HRIS Features in HR Management

Table 1. Utilization of HRIS Features in Sub-district HR Management

| HRIS Features | Sub-Features | Field Findings |
|-----------------------------|--------------------|-------------------------------------|
| Employee Database | Biodata | Used for basic employee records |
| Digital Attendance | Daily attendance | Still separate from the main system |
| Performance Evaluation | Officer evaluation | Not yet fully digital system based |
| Human Resources Development | Training plan | Not yet integrated with HRIS |

Source: NVivo analysis results (2026)

This table shows that HRIS features in both sub-districts are still partially utilized. The primary function of HRIS is still limited to recording basic employee data and attendance, while advanced features such as performance evaluation and HR development have not been optimally integrated. NVivo results indicate the themes of “partial system utilization” and “lack of connectivity between features.” This indicates that HRIS is not yet functioning as a comprehensive HR management system.

Readiness for Digitalization of Civil Service Human Resources

Table 2. Readiness for Human Resource Digitalization in Batui and South Luwuk Districts

| Digitalization Aspects | Sub-Aspects | Field Findings |
|------------------------|-----------------------|--|
| Digital Literacy | System usability | Some employees are still having difficulties |
| Digital Infrastructure | Device availability | Not evenly distributed across all units |
| System Adaptation | Technology acceptance | Still gradual |
| Digital Training | Capacity building | Not yet routine and systematic |

Source: NVivo analysis results (2026)

This table illustrates that HR digitalization readiness is still in a transitional stage. The main obstacles lie in low employee digital literacy and limited supporting infrastructure. NVivo identified dominant themes as “gradual adaptation” and “limited digital training.” This indicates that HR digital transformation is not yet supported by adequate human resource and system readiness.

Quality of Competency-Based Training

Table 3. Suitability of Training with Employee Competency Needs

| Training Dimensions | Sub-Dimensions | Field Findings |
|---------------------|---------------------------|-------------------------------|
| Needs Analysis | Competency identification | Not yet system data based |
| Training Design | Training materials | General and uniform in nature |
| Training Evaluation | Monitoring results | Not done systematically |
| Impact of Training | Performance improvements | Not yet significantly visible |

Source: NVivo analysis results (2026)

This table shows that employee training is not fully based on competency needs analysis. Training materials are still general and not tailored to individual needs. NVivo found themes of “training mismatch” and “lack of systematic evaluation.” This situation indicates that HRIS is not yet being utilized to support training planning based on employee competency data.

Discussion

This discussion outlines the results of research on the integration of Human Resource Information Systems (HRIS) and HR digitalization to improve the quality of employee training and development at the Batui and Luwuk Selatan District Offices, Banggai Regency. The analysis is conducted by linking field findings with theory and the latest previous research for the 2022–2025 period to examine the suitability, differences, and implications within the context of digital bureaucratic transformation.

HRIS Implementation in HR Management

The results of the study indicate that HRIS implementation in both sub-districts is still at a basic stage and has not yet fully become a strategic decision support system. HRIS is used more for personnel administration than for HR analysis. This condition is in line with the findings of Lase et al. (2025) who stated that HRIS in the public sector is still dominated by administrative functions and is not optimal in cross-functional data integration. Anggoro et al. (2025) also emphasized that HRIS can improve HR efficiency if used in an integrated manner, not partially. Meanwhile, Hartono (2022) added that limited system integration is a major obstacle to HRIS optimization. Thus, conditions at the research location indicate a gap between the concept of HRIS as a strategic system and implementation practices that are still limited to basic operational functions.

Human Resources Digitalization and Civil Service Readiness

Human resource digitalization at the Batui and South Luwuk District Offices is still in a transitional phase. Employees have begun using digital systems, but do not yet possess adequate digital competencies. Pramudya (2024) stated that the success of human resource digitalization depends heavily on infrastructure readiness and the ability of personnel to adopt technology. Wibowo (2023) also emphasized that low digital literacy is a major inhibiting factor in human resource transformation in the public sector. Lestari (2022) added that digital transformation requires policy support and changes in organizational work culture. These findings indicate that human resource digitalization depends not only on the availability of technology but also on the readiness of human resources as the primary users of the system. Conditions at the research locations reflect that digital transformation still faces challenges in terms of competency, adaptation, and organizational readiness to implement digital-based systems comprehensively.

Quality of Employee Training and Development

The research results show that the quality of employee training is still suboptimal because it is not based on competency needs analysis. Training is still general in nature and does not utilize HRIS data optimally. This condition aligns with Kurniawan (2024), who stated that competency-based training can significantly improve employee performance. Sari (2023) also emphasized that HR development that is not data-driven can reduce organizational effectiveness. Putra (2022) added that unsystematic training evaluation results in a low impact of training on performance. Thus, field findings indicate that suboptimal HRIS integration directly impacts training quality. This indicates that the training system in both sub-districts still requires transformation towards a data- and competency-based model to be more relevant to the needs of modern organizations.

HRIS Integration and Digitalization in HR Development

The integration of HRIS and HR digitalization in both sub-districts has not been optimal. The existing systems still operate separately and have not yet formed an integrated digital HR ecosystem. Sihombing et al. (2025) stated that digital HR transformation requires the integration of systems, HR, and aligned policies. Rajagukguk et al. (2025) added that an integrated HRIS can improve the effectiveness of employee competency development through data-driven needs analysis. However, Cahyono (2025) found that digitalization without system integration has only a limited impact on HR efficiency. This condition indicates that the main challenge lies not only in technology, but also in system integration and organizational readiness. At the research site, HRIS does not yet function as an HR data center that supports competency-based training. Therefore, strengthening system integration is necessary to improve the effectiveness of sustainable employee development.

CONCLUSION

This study shows that the integration of the Human Resource Information System (HRIS) and the digitalization of HR systems at the Batui and Luwuk Selatan District Offices in Banggai Regency are still in their early stages of development. HRIS has not yet functioned optimally as an integrated HR management system, but is still limited to administrative functions such as recording employee data and attendance. This condition indicates that the use of HRIS has not fully supported strategic decision-making in human resource management within the sub-district government.

The human resource digitalization process has also not been fully implemented. Civil servants' readiness to adopt digital technology remains limited, particularly in terms of digital literacy and understanding of more complex personnel information systems. This has resulted in the suboptimal use of digital systems to support employee training and development. Furthermore, the quality of

employee training is still not based on competency needs analysis integrated with HRIS data, resulting in training programs not being fully relevant to employee job and function requirements.

Thus, it can be concluded that HRIS integration and HR digitalization play a crucial role in improving the quality of employee training and development. However, its implementation at the research site still faces various obstacles, both in terms of technology, human resources, and organizational systems. Therefore, strengthening HRIS system integration, increasing the digital capacity of civil servants, and developing data-driven training models are necessary to make HR management in sub-district government more effective, efficient, and adaptive to the demands of digital transformation.

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