

THE IMPACT OF THE IMPLEMENTATION OF THE HUMAN RESOURCE INFORMATION SYSTEM (HRIS) ON EMPLOYEE PERFORMANCE

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Abstract: The development of information technology has led organizations to adopt HRIS to manage attendance, payroll, and employee administration in a more integrated and efficient manner. Based on these conditions, this study aims to analyze how the utilization of a Human Resource Information System (HRIS) influences various dimensions of employee performance, including productivity, punctuality, work quality, and task completion efficiency. In this context, 'impact' is defined as the changes that occur following the implementation of HRIS, whether in the form of improvements, adjustments, or new work patterns emerging in employees' activities. This research uses a qualitative approach through a literature study on empirical findings regarding HRIS, as well as a review of theories related to workforce performance. This method is considered adequate because it can reveal patterns and relationships of HRIS impact on performance based on existing evidence and concepts. The discussion examines and compares theories and previous research selected based on their relevance to HRIS and employee performance, recent publication years, and reliable academic sources, in order to strengthen the methodological basis and the understanding of the concepts being studied. Literature review shows that HRIS plays an important role in HR administration for attendance, payroll, and benefits but also reveals limitations, such as uneven effectiveness and performance impact findings that are not yet fully consistent. The use of HRIS allows the entire process to run in an integrated and real-time basis, thus making a real contribution to improving the efficiency and effectiveness of the Human Resources Department (HRD) performance in managing employee data and information.

Keywords: Human Resource Information System, Employee Performance

Abstrak: Perkembangan teknologi informasi telah mendorong organisasi untuk mengadopsi HRIS (Sistem Informasi Sumber Daya Manusia) untuk mengelola kehadiran, penggajian, dan administrasi karyawan secara lebih terintegrasi dan efisien. Berdasarkan kondisi tersebut, penelitian ini bertujuan untuk menganalisis bagaimana pemanfaatan Sistem Informasi Sumber Daya Manusia (HRIS) memengaruhi berbagai dimensi kinerja karyawan, termasuk produktivitas, ketepatan waktu, kualitas kerja, dan efisiensi penyelesaian tugas. Dalam konteks ini, 'dampak' didefinisikan sebagai perubahan yang terjadi setelah implementasi HRIS, baik berupa peningkatan, penyesuaian, atau pola kerja baru yang muncul dalam aktivitas karyawan. Penelitian ini menggunakan pendekatan kualitatif melalui studi literatur tentang temuan empiris mengenai HRIS, serta tinjauan teori-teori yang berkaitan dengan kinerja tenaga kerja. Metode ini dianggap memadai karena dapat mengungkap pola dan hubungan dampak HRIS terhadap kinerja berdasarkan bukti dan konsep yang ada. Diskusi mengkaji dan membandingkan teori dan penelitian sebelumnya yang dipilih berdasarkan relevansinya dengan HRIS dan kinerja karyawan, tahun publikasi terkini, dan sumber akademis yang dapat diandalkan, untuk memperkuat dasar metodologis dan pemahaman konsep yang diteliti. Tinjauan literatur menunjukkan bahwa HRIS memainkan peran penting dalam administrasi SDM untuk absensi, penggajian, dan tunjangan, tetapi juga mengungkapkan keterbatasan, seperti efektivitas yang tidak merata dan temuan dampak kinerja yang belum sepenuhnya konsisten. Penggunaan HRIS memungkinkan seluruh proses berjalan secara terintegrasi dan real-time, sehingga memberikan kontribusi nyata untuk meningkatkan efisiensi dan efektivitas

kinerja Departemen Sumber Daya Manusia (SDM) dalam mengelola data dan informasi karyawan..

Kata kunci: Sistem Informasi Sumber Daya Manusia, Kinerja Karyawan

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INTRODUCTION

In line with the development of these roles, the organization carries out various human resource management activities, such as the implementation of employee recruitment and selection, management of workforce data and information, employee competency development, to the implementation of termination of employment and handling of various employment issues that arise in the work environment (Diya Alfina et al., n.d.).

The Department of Human Resources (HR) is part of the organization that is responsible for the implementation of various labor management activities, such as attendance recording, payroll arrangements, allowances, leave, income tax, and other administrative tasks. In addition, the HR unit also has a role in the preparation of reports related to attendance, income, and data on employee leave and sick leave (Yantu et al., 2024). These activities are carried out periodically every month so that they require time, energy, and well-organized work system management. The high complexity of tasks in the field of human resources requires a support system that is structured, easy to operate, and efficient through the use of technology.

The development of information and communication technology has driven massive transformations in various aspects of business. One of the impacts is the change in work methods and data management, which were previously done manually, and now are required to switch to a more efficient digital system (Pradana & Rahayu, 2025). One of the technological innovations applied in human resource management is the Human Resource Information System (HRIS). HRIS is an integration between information technology and human resource management functions designed to centrally manage data, starting from the process of collecting, storing, to processing and analyzing human resource information in an organization. According to (Fanida, 2020), although each organization has a different goal in implementing HRIS, in general this system aims to manage and maintain human resource data, process it into valuable information, and present it to those who need it.

The system allows users the flexibility to select one or more symptoms relevant to

their condition (Hermanto et al., 2025). The implementation of the Human Resource Information System (HRIS) provides convenience in managing employee data while supporting the implementation of various administrative activities more optimally. By utilizing HRIS, the process of recording attendance, managing payroll, and applying for and processing leave and sick leave permits can be done in an automated manner, thereby accelerating the workflow in the human resources unit. This provides added value for companies because it is able to reduce the use of time and energy in carrying out administrative activities related to labor management.

Integrating information technology with the human resource management function through HRIS contributes significantly to improving the efficiency and productivity of the HR department. The system's capabilities in managing and presenting information quickly and accurately help organizations make more informed decisions based on up-to-date and reliable data (Kinasih & Azhar, 2025).

Human Resource Information System (HRIS) is a work mechanism that is systematically structured that includes data collection, storage, maintenance, tracking, and verification activities needed by the company in order to support the decision-making process in the field of human resources more optimally (Lassa et al., 2023). The information generated through HRIS is used by the HR unit as a basis for policy formulation and involves various stakeholders in the planning of new HR programs and activities. In its application, HRIS can be developed in various system models, both centralized, decentralized, segmented, or comprehensive, according to the needs and characteristics of the organization.

HRIS or Human Resource Information System can also be interpreted as a set of integrated systems that function to manage employee information in an organization. This system involves the process of collecting, storing, and processing data supported by the use of databases and computer applications (M Said Abdullah et al., 2024). The implementation of HRIS focuses on the use of information technology in the human resource management function, especially in the planning and management of standardized data, which is generally integrated with the enterprise application system or Enterprise Resource Planning (ERP). The application of technology in the organizational environment is directed to increase the effectiveness and efficiency of each element involved in operational activities.

Broadly speaking, HRIS is a system used to manage company employee data with the aim of optimizing the process of processing, storing, and analyzing human resource information (Yanti et al., 2025). The implementation of HRIS also includes the use of information technology in the management of HR management processes, especially in standardized data planning and processing and often integrated in enterprise application systems or Enterprise Resource Planning (ERP). The adoption of technology in the corporate environment is basically aimed at improving efficiency in the various lines of the organization involved in its operational processes.

Human Resource Information System (HRIS) is a technology-based tool used by companies to manage employee data and information in a structured and systematic manner. In its implementation, the human resources unit is often faced with high task complexity so that it requires an organized, easy-to-operate, and efficient management system with the support of information technology (Pratama & Ali, 2024). According to (Pratama & Ali, 2024) HRIS can be understood as a set of procedures that are systematically compiled to manage the data needed by the company in order to improve the quality of decision-making in the field of human resources.

Further, (Pradipta et al., 2025) explained that HRIS consists of three main components, namely the input function, the data maintenance function, and the output function. The effectiveness of the implementation of HRIS is highly determined by the existence of good coordination between the three components in producing relevant information and supporting the decision-making process efficiently in the organization. The integration between these components is a key factor in ensuring optimal system performance.

In the HRIS design and management process, the harmonious integration and interaction between input, data maintenance, and output functions needs to be a major concern. Solid cooperation and coordination among the core elements of HRIS is the basis that ensures the effectiveness of the system in providing accurate information and supporting appropriate and quality decision-making (Triono et al., 2025).

Performance reflects the work results achieved by individuals and groups in an organization in accordance with the duties and responsibilities undertaken, with the aim of achieving the company's goals legally and ethically (Hanafi & Anwar, 2023). Conceptually, performance shows the level of success of a person in completing his or her

work, the abilities realized in the execution of tasks, and the output resulting from the work activities provided by the organization (Saputri et al., 2024). (Saputri et al., 2024) explains that employee performance is the result obtained from the performance of certain functions or activities in the job during a certain period of time. Basically, performance is a reflection of the work process that has been carried out; If the process runs according to the set standards, then the results achieved will be in line with the expected targets. On the other hand, the discrepancy between the work results and the target can indicate problems in the work process being carried out. For employees, understanding performance standards and criteria is an important aspect to know the final results of the work done.

Performance criteria are the main dimension in the assessment of individual performance, as stated by (Iriyanti et al., 2025) There are six main indicators used to measure employee performance, namely the quality of work results, quantity of output, punctuality, cost efficiency, the ability to work independently without supervision, and the ability to establish interpersonal relationships. Each of these indicators has an important role in assessing the extent to which employees are able to achieve the expected results in the implementation of their duties in the work environment. Performance appraisals based on these criteria are an essential tool for organizations in evaluating individual achievements in various aspects of work.

Emphasis on performance criteria is an important basis for assessing employee achievement in the workplace. By considering aspects of quality, quantity of work, punctuality, cost efficiency, independence in work, and the ability to interact with other parties, organizations can conduct a more comprehensive performance assessment (Saputra & Uus Rusmawan, 2025). This approach not only helps in evaluating the performance of employees individually, but it also allows the organization to understand each employee's contribution in supporting the achievement of the organization's overall goals.

METHODS

This study uses a qualitative approach with a literature review method that focuses on comparing and analyzing various theories that develop in the scientific literature. Research data was obtained from scientific articles accessed through the Google Scholar database and Mendeley's literature search engine.

The survey approach is applied in the writing using methodological techniques that

are subjective and carried out inductively to reduce the potential for additional questions to arise during the research process. The exploratory nature of qualitative research is realized through the discussion and in-depth study of relevant literature sources, which serve as a basis for hypothesis preparation as well as a material for comparison with the findings of previous research to test and validate the truth of existing theories (Susanti & Budiantoro, 2024).

RESULTS AND DISCUSSION

According to (Herwantaruna et al., 2025), employee performance is the work results achieved by individuals through the execution of certain tasks or activities within a specified time frame. Performance shows the extent to which an employee successfully fulfills their roles and tasks, with the quality of work completion being the main benchmark in their assessment. The assessment is carried out by looking at the extent to which employees are able to carry out their duties in accordance with the standards, procedures, and provisions that apply in the organization.

In the context of performance appraisal, (Sumanti & Arin, n.d.) identify six main indicators used to measure employee achievement, namely the quality of work, the amount of output produced, the timeliness of task completion, cost efficiency, the ability to work independently without direct supervision, and the ability to build and maintain interpersonal relationships. These six indicators allow organizations to assess employee performance from various job dimensions and see individual contributions to company goals comprehensively. The scope of these indicators is considered adequate in the context of HRIS research because each reflects aspects of performance most influenced by the use of information systems in HR administration and management.

The implementation of the Human Resource Information System (HRIS) is known to have an important role in improving employee performance. The level of accuracy, timeliness, and completeness of the data generated through the HRIS system has a direct effect on the effectiveness of employees in completing work tasks. The mention of the defense sector needs to be given a clear context, including the reasons for its selection and its relevance to the research focus, for example, how HRIS, through standardized procedures, can improve the quality of HR decision-making in various fields, including the defense industry. The HRIS process, which includes data collection, storage, maintenance, retrieval,

and validation, is an important component in strengthening strategic decision-making in the HR field.

The development of the defense industry is also influenced by the application of information technology strategies in quantitative human resource management. By recognizing rapid environmental changes and managing human resources through technologies such as HRIS, organizations can more accurately anticipate future needs and competencies for instance, through skills mapping or training needs analysis, which has been shown to assist various defense institutions in planning capacity development and industrial strategies.. In addition, the use of artificial intelligence (AI) technology has been proven to have a significant relationship with improving employee performance in various contexts, including the defense industry sector (Cahyono, n.d.).

The results of the research conducted by (Hartini, 2020) points out some important findings. First, information quality has been proven to have a significant negative influence on the success of HRIS. Second, although the quality of the system has no effect on the success of HRIS, the usability factor of the system does show a significant positive influence. In addition, the success of HRIS does not directly affect employee performance. However, information quality is known to have a significant negative effect on performance through HRIS success, while system quality has a significant positive influence directly on performance. Furthermore, the usability of the system also has a significant positive influence on employee performance through the success of HRIS.

Other studies also reinforce these findings by showing that Human Resource Information Systems have a positive and significant influence on employee performance. In addition, employee competence and work discipline have proven to be factors that significantly contribute to improved performance, as revealed by (Yantu et al., 2024).

The implementation of HRIS at PT Bank Ganesha Tbk has shown positive results, especially in the process of applying for employee leave. All stages of applying for leave at the company have been carried out computerized through HRIS applications in all divisions, starting from the application process to data storage. The implementation of this system helps the general public to manage leave requests more efficiently and speed up the administrative process, as reported by the (Fanida, 2020).

From the aspect of technology development, research conducted by (Kinasih & Azhar, 2025) successfully designed and tested the Human Resource Information System

(HRIS) application using the Blackbox testing method. The application developed supports companies in managing employee data, recording attendance, managing leave, permits, overtime, and employee training history. In addition, this system also assists organizations in adjusting to flexible work patterns, including the implementation of the Work From Anywhere (WFA) concept.

CONCLUSION

Based on the results of the literature review conducted in this article, it can be concluded that the implementation of the Human Resource Information System (HRIS) has a significant role in supporting the management of various administrative activities in the field of human resources. HRIS is able to facilitate the process of recording employee attendance, payroll management, and arrangement of providing benefits and bonuses in a more systematic and structured manner. Through the use of the HRIS application, all of these activities can be carried out in an integrated manner, so that the attendance process, salary calculation, and distribution of allowances and bonuses can be carried out automatically and in real-time. The implementation of this system not only improves data accuracy and reduces the potential for administrative errors, but also helps speed up the workflow of the Human Resources (HR) department. Thus, HRIS enables HR to manage and process employee data more efficiently, effectively, and support data-driven and timely managerial decision-making.

REFERENCES

- Cahyono, N. D. (n.d.). *The Impact of Implementing the HRIS (Human Resource Information System) System on the Efficiency of Human Resource Management in Indonesian Companies*. 2025, 32–39.
- Diya Alfina, V., Sholeh, A., & Anggraini, R. (n.d.). *Transformasi UMKM : Dinamika Bisnis di Era Kehadiran Alfamart*.
- Fanida, H. P. (2020). *Pengaruh Information Quality , System Quality , Dan Usefulness Terhadap Kinerja Sumber Daya Manusia Melalui Human Resource Information System (HRIS) Succes*. 8114.
- Hanafi, Y. D., & Anwar, M. (2023). *Implementation of Human Resource Information System Application (HRIS) at Pt. Swabina Gatra*. 3(3), 120–123.
- Hartini, R. (2020). *Pengaruh Aplikasi Human Resource Information System*. *Ciastech*, 39–46.
- Hermanto, Nengsih, Y. G., & Mahendra, D. Y. (2025). *Penerapan Metode Forward*

Chaining dalam System Berbasis Web untuk Identifikasi Gejala Kecemasan Remaja. 12(4), 2030–2049.

- Herwantaruna, Iriani, N. I., & Hidayat, I. (2025). *Penerapan Teknologi HRIS (Human Resource Information System) dalam Meningkatkan Produktivitas Kerja Karyawan pada Favehotel Malang. 7(4), 386–395.*
- Iriyanti, N., Setyorini, N., & Putri, N. K. (2025). *Pengaruh Penggunaan Human Resource Information System (HRIS) Terhadap Kinerja Pegawai dengan Job Involvement Sebagai Variabel Mediasi (Studi Kasus Badan Kepegawaian Pendidikan dan Pelatihan Kota Semarang). 2, 1–9.*
- Kinasih, P. A., & Azhar, R. M. (2025). *Review Implementasi Human Resource Information System (Hris). 6(1), 617–625.*
- Lassa, L. A., Nursiani, N. P., Salean, D. Y., & Fanggidae, R. E. (2023). *Pengaruh Human Resource Information System (HRIS) dan Pelatihan Terhadap Produktivitas Karyawan pada Pt. BPR Tanoba Lais Manekat Kota Kupang Nusa Tenggara Timur. 2015, 2051–2062.*
- M Said Abdullah, Shaddiq, S., & Sudirman. (2024). *Pengaruh Dan Tantangan Dalam Penggunaan Aplikasi Human Resource Information (HRIS) Terhadap Produktivitas Pegawai. 1(February), 1–9.*
- Pradana, S. A., & Rahayu, N. W. (2025). *Pengembangan Sistem Otomatisasi Pengelolaan Data Excel berbasis Microsoft Power APPS. 12(4), 2017–2029.*
- Pradipta, A. R., Purwadisastra, D., & Puspita, M. (2025). *Pengaruh Human Resource Information System (HRIS) dan Disiplin Kerja Terhadap Kinerja Karyawan pada Divisi Project Deployment Center PT Len Industri (Persero). 24(1), 53–64.*
- Pratama, F. W., & Ali, H. (2024). *Pengaruh Basis Data, Budaya Organisasi dan Pelatihan terhadap Human Resource Information System. 2(2), 75–83.*
- Saputra, E. A., & Uus Rusmawan. (2025). *Development of an HRIS (Human Resource Information System) Employee Management System Using the Waterfall Method at Cv. Mitra Consulting. 7(1), 1268–1281.*
- Saputri, I. D., Setyorini, N., & Darmaputra, M. F. (2024). *Pengaruh Human Resource Information System Terhadap Kinerja Karyawan Dengan Time Management Sebagai Variabel Intervening Di CV Laksana Karoseri. 4, 9766–9779.*
- Sumanti, N. A., & Arin. (n.d.). *Implementasi Sistem HRIS (Human Resource Information System) dalam Meningkatkan Efisiensi Operasional MSDM. 1(1), 145–151.*
- Susanti, D., & Budiantoro, A. (2024). *Analisis Pengaruh Persepsi, Kepuasan, dan Keterikatan Terhadap Efektivitas Penerapan Human Resource Information System di Pt.Kawasan Berikat Nusantara. 1(3), 1–19.*
- Triono, Anggraini, R., & Saputra, N. D. (2025). *The Role of Academic Advisors in the Development of Student Human Resource Competencies. 4(1), 2019–2023.*
- Yanti, P. M., Anggraini, R., & Rama, K. S. (2025). *Strengthening The Role of Teachers as Classroom Managers Through The Implementation of The Concept of Education Management at SD Negeri Sumber Harta. 3(4).*
- Yantu, I., Rahman, E., & Lasimpala, P. P. (2024). *Pengaruh Human Resources Information*

System (HRIS) Dan Budaya Organisasi Terhadap Kinerja Karyawan PT. PLN (Persero) UP3 Gorontalo. 4(3), 728–738.