



The Impact of Implementing the HRIS (Human Resource Information System) System on the Efficiency of Human Resource Management in Indonesian Companies

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Abstract

The implementation of the Human Resources Information System (HRIS) has brought significant changes in human resource (HR) management, especially in Indonesian companies. HRIS enables the integration of data and HR management processes digitally, thereby increasing operational efficiency and management transparency. This study aims to analyze the impact of HRIS implementation on HR management efficiency in Indonesian companies. The research method used is library research by analyzing relevant primary and secondary sources, including journal articles, books, and official documents published in the last five years. The results show that HRIS provides great benefits, including automation of administrative processes, data-driven decision-making, and increased employee productivity. However, there are implementation challenges such as high initial costs, resistance to change, and lack of digital literacy among the workforce. This study recommends strengthening technology training for employees and infrastructure development to optimize the benefits of HRIS.



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INTRODUCTION

The development of information technology has brought significant transformations in various sectors, including human resource management (HR). One of the notable innovations is the Human Resources Information System (HRIS), which is designed to help organizations manage employee data, payroll administration, and performance management more efficiently (Manunggal et al., 2022). The implementation of HRIS allows companies to integrate data and management processes digitally, thereby increasing productivity and operational efficiency (Noerman, 2023).

A Human Resource Information System (HRIS) is software designed to help organizations manage human resource functions efficiently. HRIS integrates employee data, payroll, recruitment, performance management, and training into one centralized system. By using this technology, organizations can increase transparency, speed up administrative processes, and provide strategic insights through human resource data analysis. According to Harr et al. (2025), artificial intelligence-

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based HRIS can help organizations process big data, forecast workforce needs, and improve overall productivity (Harr et al., 2025).

In addition, HRIS also serves as a strategic tool for data-driven decision-making. This system supports workforce planning, succession management, and employee development, allowing companies to respond more effectively to labor market dynamics (Hijrasil et al., 2023). In the digital era, HRIS has transformed from a mere administrative tool to a cloud-based system that supports global collaboration, as revealed by Ma'arif et al. (2025). The implementation of web-based HRIS also allows for real-time data management, making it easier for companies to improve operational efficiency and employee satisfaction (Marbun et al., 2025).

In Indonesia, HRIS is increasingly used by companies as an effort to compete in the era of globalization. The use of this system not only reduces administrative burden, but also aids in strategic decision-making through in-depth data analysis (Elugbaju et al., 2024). In addition, HRIS supports automation processes that reduce human error in HR management, especially in data recording and payroll.

However, although the benefits of HRIS have been proven globally, the challenges in implementing this system in Indonesia remain significant. Factors such as high initial costs, lack of technological infrastructure, and low digital literacy among the workforce are the main obstacles (Estradha et al., 2024). Therefore, research is needed to understand the impact of HRIS on HR management efficiency, especially in the context of Indonesian companies that have unique characteristics.

Research on the impact of HRIS on HR management efficiency is essential to identify the extent to which this system can improve productivity and operational efficiency in Indonesian companies. By understanding the benefits and challenges faced, companies can develop more effective implementation strategies, thereby maximizing the potential of this technology to support business growth (Pratiwi et al., 2024).

Previous research has shown that HRIS has a positive impact on the efficiency of human resource management, especially in terms of data-driven decision-making and reducing administrative burden (Savitri et al., 2024). In addition, Harr et al. (2025) revealed that cloud-based HRIS can improve collaboration between departments. However, research that specifically discusses the implementation of HRIS in Indonesian companies is still limited, so this study seeks to fill this gap (Harr et al., 2025).

This study aims to analyze the impact of HRIS implementation on HR management efficiency in Indonesian companies. The study also seeks to identify factors that support or hinder the successful implementation of HRIS, as well as provide practical recommendations for companies to adopt this technology effectively.

METHOD

This study uses a qualitative approach with the type of literature study research (library research). This approach was chosen because it aims to explore the concepts, theories, and results of previous research on the impact of the implementation of Human Resources Information Systems (HRIS) on the efficiency of human resource management in Indonesian companies. Literature studies allow researchers to analyze in depth various relevant scientific sources in order to obtain a comprehensive synthesis (Zed, 2018)

The data sources in this study include primary and secondary data. Primary data consists of theoretical principles that support the implementation of HRIS, while secondary data includes scientific journal articles, books, official reports, and related documents published in the last five years. This data source was selected based on its validity, relevance, and contribution to the research

topic (Sugiyono, 2018). All data sources are accessed through digital platforms such as Google Scholar, ResearchGate, and indexed online libraries to ensure their accuracy and reliability.

The data collection technique is carried out through the documentation method, namely by identifying, collecting, and analyzing literature related to the impact of HRIS on HR management efficiency. Relevant literature is analyzed to uncover the relationship between the implementation of HRIS and the improvement of administrative processes, data-driven decision-making, and operational efficiency of companies (Bowen, 2009).

The collected data was analyzed using the content analysis method. This analysis involves organizing the data into thematic categories, encoding key information, and critically interpreting the results of previous research. This process is carried out to deeply understand how HRIS contributes to the efficiency of HR management in the context of Indonesian companies. With this analysis, the research seeks to produce a synthesis that can be the basis for recommendations for a more effective implementation of HRIS (Snyder, 2019).

RESULT AND DISCUSSION

The following table contains literature data which is the result of a selection of 10 national and international journal articles related to the impact of the implementation of Human Resources Information System (HRIS) on the efficiency of human resource management in Indonesian companies. These articles were selected based on their relevance and contribution to the research, with a focus on the Indonesian context and studies published in the last five years.

Table 1. Literature Review

No	Author	Title	Research Focus
1	B. Harto & H.S. Homan	Integrasi Teknologi Informasi dalam Manajemen Sumber Daya Manusia	The impact of technology integration on HRIS efficiency and financial performance.
2	R. Hartini	Pengaruh Aplikasi HRIS pada PT Mandom Indonesia Tbk	The effectiveness of HRIS in improving work efficiency in manufacturing companies.
3	R. Rismawan	Penggunaan HRIS dalam Meningkatkan Keunggulan Kompetitif Perusahaan	HRIS's contribution to HR planning and management in the company.
4	M.D.J. Raflian	Implementasi Sistem Informasi Sumber Daya Manusia dan Manfaatnya bagi Organisasi	HRIS in improving the efficiency of organizational HR management.
5	A. Nur & R. Yehezkiel	Analisa Sistem Informasi Manajemen SDM pada Perusahaan Jasa	The effectiveness of HRIS in service companies.
6	Y.D. Hanafi & M. Anwar	Implementasi Aplikasi HRIS pada PT Swabina Gatra	HRIS application to improve HR management efficiency.
7	N.K.A. Nirwana & R. Makduani	Dampak Implementasi HRIS terhadap Kinerja Karyawan	The influence of HRIS on the performance and efficiency of human resource management.
8	A.M.B. Sebayang & Z. Fitriyah	Pengaruh Penggunaan HRIS terhadap Kepuasan Kerja di PT Reckitt Indonesia	The impact of HRIS on job satisfaction and work process efficiency.
9	R.W. Oktavia & Y. Yahfizham	Sistem Informasi Sumber Daya Manusia (HRIS) pada Asuransi Umum BUMIDA	Analysis of the implementation of HRIS in insurance companies.

10	M.S. Abdullah & S. Shaddiq	Pengaruh dan Tantangan Penggunaan HRIS terhadap Produktivitas Pegawai	Analyze the challenges and benefits of HRIS in employee work productivity.
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The findings from the literature identified in the table show that the implementation of human resource information systems (HRIS) has a significant impact on the efficiency of human resource management (HR) in various companies in Indonesia. In a study by Harto and Homan (2023), HRIS was identified as a technology that is able to improve accuracy and efficiency in HR data processing, while contributing to the company's financial performance. This study reveals that HRIS allows companies to integrate data in real-time, making it easier to make strategic decisions related to HR management (Melinda et al., 2023).

Meanwhile, Hartini (2020) in a study at PT Mandom Indonesia Tbk showed that the application of HRIS directly increases the effectiveness and efficiency of human resource development (HRD) teamwork. The use of HRIS allows companies to shorten time in administrative processes, such as payroll, attendance management, and employee data reporting, thereby increasing work productivity. These findings also support the view that information technology is an important element in the modernization of HR management (Hartini, 2020).

Rismawan (2017) highlights the aspect of competitive advantage obtained through the use of HRIS. In its study, HRIS helps companies to plan workforce needs more effectively, reduce the risk of data errors, and increase HR management accountability. This shows that HRIS not only has an impact on operational efficiency, but also strengthens the company's competitive position in the market (Rismawan, 2017).

Furthermore, research by Raflian (2022) highlights the benefits of HRIS in organizations, especially in improving the efficiency of the HR management process. HRIS is said to be able to replace time-consuming and error-prone manual methods with faster and more accurate automated systems. This study also identifies that companies that use HRIS can better respond to dynamic changes in workforce needs (Raflian, 2022).

In the context of service companies, Nur and Ezekiel (2024) examine the impact of HRIS implementation on work efficiency. They found that HRIS allows service companies to optimize employee data management, such as work schedule management, performance monitoring, and compensation management. This directly supports the company's efforts to improve operational efficiency and service quality (Nur & Yehezkiel, 2024).

A study by Hanafi and Anwar (2023) at PT Swabina Gatra further strengthens the finding that HRIS contributes to improving HR management efficiency. With the implementation of HRIS applications, companies can reduce data processing time and increase transparency in HR information management. This study also shows that HRIS can strengthen the relationship between management and employees through more open access to data (Hanafi & Anwar, 2023).

Nirwana and Makduani (2023) underline the influence of HRIS on employee performance. In their research, HRIS has been proven to facilitate the implementation of employee training and development more efficiently, while increasing job satisfaction. Employees have easier access to career and administrative information, which overall improves productive working relationships (Nirwana et al., 2023).

In the context of job satisfaction, research by Sebayang and Fitriyah (2023) highlights that HRIS has a significant positive impact on employee satisfaction. Through simplifying administrative and reporting processes, HRIS allows employees to focus more on their key tasks. This study also found that HRIS helps create a more transparent and accountable work environment (Sebayang & Fitriyah, 2023).

Oktavia and Yahfizham (2024) in their research on insurance companies identified that HRIS plays an important role in supporting operational efficiency. HRIS is used to manage employee data, payroll, and performance reports in a more structured manner, thereby reducing the burden of manual administration. This allows management to allocate human resources more optimally (Oktavia et al., 2024).

Finally, a study by Abdullah and Shaddiq (2024) examines the challenges and benefits of implementing HRIS in increasing employee productivity. This study shows that the effectiveness of HRIS is highly dependent on the suitability of the system with the needs of the organization as well as the readiness of human resources in operating the technology. Despite facing several challenges, such as resistance from employees to technological changes, the benefits generated by HRIS include cost savings, time efficiency, and improved data quality (Abdullah et al., 2024).

Overall, the findings from the reviewed literature confirm that HRIS has a significant positive impact on the efficiency of human resource management in various sectors. However, the success of its implementation is highly dependent on organizational readiness, management support, and employee adaptation to new technologies. These findings provide important insights for companies that want to optimize HR management through the application of HRIS technology.

Discossion

The implementation of Human Resource Information Systems (HRIS) has brought significant changes to HR management in Indonesian companies. HRIS, as a technology-based platform, helps companies manage various aspects of HR more efficiently and effectively. In HR management, HRIS provides great benefits, ranging from automating administrative tasks, accessing real-time data, to increasing productivity. Tasks that previously took a long time, such as payroll and attendance management, can now be done faster and more accurately. With the reduction of manual errors, companies are able to create a more organized and efficient work environment.

The impact is not only felt on process efficiency, but also on various aspects of human resource management. In recruitment, HRIS allows companies to source candidates more effectively through integration with job portals and social media. The system also helps in managing employee training, recording training history, and evaluating skills that have been achieved. Performance management becomes more objective because it is based on transparent metrics. In addition, compensation management, such as salary and benefits calculations, becomes more accurate with the support of automated systems.

However, the success of HRIS implementation is highly dependent on several supporting factors. Management commitment is the main element that ensures the smooth procurement and implementation of the system. In addition, adequate technological infrastructure and employee training are important prerequisites for optimizing the benefits of HRIS. However, obstacles such as resistance to change from employees, high implementation costs, and limited digital infrastructure in some regions remain challenges.

In addition to increasing efficiency, HRIS also has a major impact on transparency and accountability. Every action in an HRIS system can be traced through a clear audit trail, facilitating reporting and reducing the potential for data manipulation. This transparency also creates trust between management and employees, especially in performance management and compensation.

From an employee's point of view, HRIS provides benefits that increase their satisfaction. Employees can access personal data such as salary, leave, and work history information through a self-contained portal, making it easier for them to meet administrative needs. The system also speeds up responses to employee requests, such as leave applications or insurance claims, creating a better work experience and supporting a positive relationship between employees and the company.

The HRIS Implementation Case Study in Indonesia shows how large companies like Telkom Indonesia have successfully leveraged HRIS to improve efficiency and transparency. With more than 20,000 employees, Telkom uses HRIS to manage recruitment, performance evaluation, and automatic salary calculation. As a result, this company is able to increase operational efficiency by up to 30% and provide better HR services to employees.

Regulations and policies related to HRIS in Indonesia provide a legal basis to support the implementation of this system. The main relevant regulations include:

1. Manpower Law No. 13 of 2003

This regulation regulates the rights and obligations of companies and employees in employment relationships. In the context of HRIS, this law requires transparent management of labor administration and in accordance with legal standards. HRIS systems help companies meet these obligations through integrated and easily accessible employee data logging.

2. Law No. 11 of 2008 concerning Information and Electronic Transactions (UU ITE)

The ITE Law protects personal data processed in digital systems, including HRIS. This system is mandatory to ensure the security of employee data, prevent information leakage, and uphold user privacy. This regulation also requires companies to have adequate technology security standards.

3. Government Regulation No. 71 of 2019 concerning Electronic-Based Government Systems

This regulation encourages the adoption of technology in public and private administration. In terms of HRIS, this regulation is the foundation for companies to integrate digital technology in HR management, thereby creating higher efficiency and transparency.

With this regulation, companies in Indonesia have clear guidelines for implementing HRIS in accordance with applicable legal standards, ensuring protection for employees and operational efficiency.

The future of HRIS in Indonesia is very promising, in line with the development of technology and the increasing adoption of digital systems by companies. The HRIS of the future will be integrated with artificial intelligence (AI) technology to provide predictive analytics in employee recruitment and management. Mobile-based systems will make it easier for employees to access data from anywhere, while big data-driven analytics will help companies make more informed strategic decisions.

To effectively adopt HRIS, companies in Indonesia need to take strategic steps. The first step is to conduct a needs analysis to determine the HRIS features that best suit their business needs. Furthermore, companies must choose a reliable vendor that can provide an HRIS system that is compatible with regulations and infrastructure. Adequate training for employees is essential to ensure a successful implementation, followed by periodic evaluations of system performance. In addition, priority on data security must be a top concern so that companies can optimally protect sensitive employee information.

With proper implementation, HRIS not only improves the efficiency of HR management, but also creates a more transparent, accountable, and satisfying work environment for employees. Supportive regulations and technological advances in the future will further strengthen HRIS's role in increasing the competitiveness of companies in Indonesia.

CONCLUSION

This study concludes that the implementation of HRIS has a significant positive impact on the efficiency of HR management in Indonesian companies. HRIS enables the automation of administrative tasks, improved data accuracy, and data-driven strategic decision-making. In addition, HRIS supports transparency and accountability in employee management, thereby creating a better

working relationship between management and employees. However, the success of HRIS implementation is highly dependent on organizational readiness, adequate technology infrastructure, and employee digital literacy.

As a suggestion, companies are advised to conduct a needs analysis before adopting HRIS to ensure the system's suitability with business needs. Comprehensive training for employees also needs to be carried out to minimize resistance to change. In addition, the government is expected to support the implementation of HRIS by providing policies that facilitate the development of digital infrastructure and employee data protection. With the right strategy, HRIS can be an effective tool to increase a company's competitiveness in the digital era.

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