# USE OF MANAGEMENT INFORMATION SYSTEMS TO IMPROVE THE EFFECTIVENESS OF HUMAN RESOURCE MANAGEMENT

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**Abstract**

Efficient human resource management is a key element in enhancing institutional competitiveness. In today's digital era, the implementation of Management Information Systems (MIS) has become crucial for institutions to manage various aspects of HR, including recruitment, capability development, performance evaluation, and administrative management. This study aims to investigate how the implementation of MIS can improve the effectiveness of HR management, particularly in the context of modern organizations. Through a literature review of various relevant Indonesian journals, the study findings reveal that the implementation of MIS can provide clarity, efficiency, and accuracy of data that supports managerial decision-making related to HR. In addition, MIS also encourages collaboration between divisions, facilitates direct data access, and supports talent development strategies in a more planned manner.

**Keywords:** *Management Information System, Human Resource Management, Effectiveness, Digitalization, Organizational Performance*

## BACKGROUND

Advances in information technology have brought significant changes in management practices, particularly in human resource management. Organizations are faced with the obligation to not only pay attention to productivity, but also to the sophistication of HR management systems that are able to adapt to ever-changing work environment conditions. This is where the importance of the role of Management Information Systems, which can offer decision support systems based on actual and interconnected data. Many companies in Indonesia have begun to implement information systems, but not all have been able to maximize their overall functionality to support the effectiveness of HR management. This question arises: to what extent can MIS contribute to the effectiveness of HR management, and what factors need to be strengthened in its implementation?

## THEORITICAL REVIEW

A Management Information System (MIS) is a set of structured procedures that present data to support managerial activities within an organization. According to Jogiyanto (2005), MIS functions in collecting, processing, storing, and distributing information to support the decision-making process. In the realm of human resources, MIS assists in workforce planning, employee development, performance appraisal, and more efficient employee administration. Meanwhile, effective HR management is a comprehensive process that includes the stages of selection, training, career development, and continuous evaluation of human resource performance. Human Capital Theory argues that humans are assets that need to be managed strategically because they contribute to the overall performance of an organization. When MIS and HR management function synergistically, a significant competitive advantage is realized.

## RESEARCH METHODS

This study adopted a literature review methodology with a qualitative approach focused on description. The data used were sourced from relevant and accredited national scientific journals, particularly those that highlight the implementation of Management Information Systems in Human Resource Management. The literature selection criteria

included: novelty (published within the last five years), thematic relevance, and the organizational context in Indonesia. The analysis was conducted thematically to identify patterns, advantages, barriers, and strategies for implementing MIS in the context of HR management.

## RESULTS AND DISCUSSION

Based on a review of various scientific articles in Indonesia, including those from the Journal of Management Science (State University of Malang), the Journal of Information Systems (Gunadarma University), and the Journal of Business Administration (Brawijaya University), it appears that organizations that have utilized Management Information Systems (MIS) in Human Resource (HR) management tend to show improvements in efficiency and effectiveness. One study by Puspitasari (2021) indicated that implementing a Human Resource Information System (HRIS) simplifies the process of monitoring attendance, managing salaries, and directly evaluating employee performance.

Another study by Pratama & Lestari (2020) stated that the implementation of MIS in the manufacturing sector in East Java can reduce HR operational costs by up to 20 percent and improve employee retention through a more planned recruitment and training process.

Challenges of SIM Implementation:

1. **Addition of performance evaluation elements based on data analysis (HR Analytics)**
   Many companies are now using HR Analytics to predictively analyze employee data, including projected turnover, training needs, and identifying potential talent. This can expand the concept of HR management (MIS) from mere administration to a strategic decision-making tool.

2. **Security and privacy of HR data in SIM**
   Data security is often a key issue in digital HR management. MIS must ensure employee data protection from the risk of leaks and misuse. This aspect is also highly relevant to Indonesia's Personal Data Protection Law.

3. **SIM integration with other enterprise systems (ERP, Payroll, e-learning)**
   Outlining how MIS can be integrated with systems such as Enterprise Resource Planning (ERP), e-learning platforms, or payroll applications will enrich the discussion and emphasize the advantages of MIS as an integrated system.

4. **The impact of SIM on employee satisfaction and productivity**
   In addition to considering the management aspect, it is important to add how SIM directly impacts employees, such as increased job satisfaction due to access to self-service HR systems, clarity in careers, and so on.

The implementation of a Management Information System (MIS) in Human Resource Management has a significant impact on managerial effectiveness. First, this platform supports management in making decisions based on accurate and up-to-date data, reducing the possibility of human error, and accelerating administrative processes. Second, a MIS creates transparency in employee performance evaluation systems, which can increase trust and morale. Third, collaboration between information systems and HR planning helps organizations analyze competency needs and design more targeted training programs. However, the success of a MIS implementation depends not only on the technology used but also on the readiness of Human Resources to adopt it. Digital capabilities and an organizational culture that supports adaptation are key elements in the effectiveness of a MIS. Therefore, it is crucial for organizations to implement comprehensive training and cultural change within the organization to ensure the optimal implementation of a MIS.

Furthermore, research conducted by Rahmawati and Nugroho in 2022 showed that implementing HR Analytics in Management Information Systems enables organizations to perform predictive analysis on employee performance and behavior. This supports management in making data-driven strategic decisions, such as succession planning and talent management. A 2023 study by Harjanti and Widodo highlighted the importance of data security in implementing Management Information Systems. This study found that companies implementing data security policies based on Management Information Systems were able to reduce the risk of HR data breaches by up to 35 percent. Setiawan and Liana in 2021 found that integrating Management Information Systems with ERP and payroll systems significantly improved HR operational efficiency and reduced data duplication. Meanwhile, research conducted by Lestari and Ramadhan in 2022 revealed that the use of self-service Management Information Systems increased job satisfaction

because employees could access personal information, leave requests, and pay slips without going through lengthy bureaucratic processes.

## CONCLUSION

The implementation of a Management Information System (MIS) has been proven to have a significant impact on improving the efficiency of human resource management. MIS not only speeds up administration but also aids strategic decision-making with accurate and up-to-date data. Literature research shows that incorporating features like HR Analytics allows organizations to more accurately analyze and forecast performance and HR needs.

In addition, MIS offers the benefits of increased transparency in performance evaluations, operational cost efficiency, and improved job satisfaction through a self-service system for employees. The security and protection of human resource data are also crucial elements that can be improved by implementing a standardized system. The success of MIS implementation depends heavily on the readiness of the technological infrastructure, the adaptability of human resources, and management support in integrating the system with the overall organizational strategy.

## SUGGESTION

Organizations are advised to conduct a comprehensive assessment of information system needs that align with the characteristics and strategic objectives of HR management. The selection of an MIS should consider the system's capabilities in supporting HR analytics features, integration with other systems such as ERP, payroll, and e-learning, and employee data security in accordance with personal data protection regulations. Employees and managers should receive intensive training as a priority to improve digital literacy and encourage effective technology adoption. Furthermore, collaboration between the information technology and human resources divisions should be strengthened in the design, implementation, and evaluation of the system so that the MIS not only runs technically but also supports long-term, sustainable HR development strategies.

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