



IMPLEMENTATION OF HRIS (HUMAN RESOURCE INFORMATION SYSTEM) IN ENHANCING EFFICIENCY AND EFFECTIVENESS OF TECHNOLOGY MANAGEMENT

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Abstract

This article discusses the application of HRIS (Human Resource Information System) in technology management to improve efficiency and effectiveness. HRIS is an information system that helps manage employee data, administrative processes, employee development, and communication within an organization. By using HRIS, organizations can automate routine tasks, improve access to information, and make decisions based on accurate data. HRIS implementation is also faced with challenges such as limited resources and changes in organizational culture, but with the right strategy, its benefits can be optimized in technology management.

Keywords: HRIS (Human Resource Information System), Technology Management, Efficiency, Effectiveness.

1. Introduction

In the continuously evolving digital era, information technology has transformed various aspects of life, especially within organizations. Efficient and effective technology management is the key to success for companies facing increasingly intense global competition. In this context, HRIS (Human Resource Information System) emerges as an innovative and effective solution in technology management (Isnawijayani, 2022).

HRIS technology is a system that integrates data and processes related to technology into a computerized platform. HRIS enables companies to manage member data, job information, recruitment, training, development, and other administration processes in an integrated manner. By using HRIS, companies can improve operational efficiency and optimize data-driven decision-making in technology management.

Objective of Writing: This literature review aims to present a comprehensive understanding of the application of HRIS technology in enhancing efficiency and effectiveness in various conditions of technology management. This article will explain the basic concepts of HRIS, its benefits, and the challenges it may face in implementation. Additionally, the article will provide case studies and empirical evidence supporting the effectiveness of HRIS in technology management (Rismawan, 2017).

Human Resource Information System Definition of HRIS and its evolution of use HRIS is a computerized system that integrates information and processes related to technology within an organization. HRIS has evolved from traditional data management systems into complex and

integrated platforms, encompassing various components such as member databases, administration modules, reporting, and data analysis.

Components of HRIS and their functions HRIS components include member databases, personnel modules, training and development modules, performance management modules, and data analysis modules. Each component plays a crucial role in supporting efficient and effective management.

The role of HRIS in technology management HRIS facilitates member data management, streamlines technology-based administrative processes, improves information accessibility, and supports data-driven decision-making. This helps organizations optimize data management through technology management and enhance productivity and organizational performance (Junaedi, 2020) (Dewayani, 2013) (Jonni, 2019).

Efficiency of Technology Management through HRIS:

- 1 Automation of Administrative Processes with HRIS. HRIS enables the automation of various administrative processes such as member data management, payroll, personnel administration, and time and attendance management. This reduces reliance on error-prone manual processes and accelerates operational efficiency.
- 2 Improved Accessibility of Technology Data and Information with HRIS. HRIS provides an integrated member database easily accessible to relevant parties. This facilitates access to technology information, including personal data, employment history, and member qualifications. Rapid and accurate data retrieval and reporting also expedite decision-making processes.
- 3 Utilization of Self-Service HRIS for Members. HRIS grants self-service access to members through a self-service portal. Members can access personal information, manage leave, participate in training, and independently explore career development. This reduces HR administrative burdens and gives members greater control over self-management.
- 4 Efficient Integration and Processing of Data with HRIS. HRIS allows data integration with other systems in the organization, such as financial or production systems. This integration ensures data consistency and accuracy, enabling efficient data processing, including centralized analysis and reporting.

Effectiveness of Technology Management through HRIS:

- 1 Use of Data and Analysis in Technology-Based Decision-Making. HRIS provides accurate and reliable data for more effective decision-making. Member data analysis aids in targeted recruitment, objective performance assessments, and planning career development aligned with organizational goals.
- 2 Integrated Performance Development and Management with HRIS. HRIS facilitates computerized goal setting, monitoring, and feedback. Members can monitor their

performance in real-time, and managers can provide prompt and accurate feedback. HRIS also supports development planning based on performance evaluations.

- 3 Effective Training and Development of Members with HRIS. HRIS assists in identifying training needs based on data and facilitates training scheduling. Additionally, HRIS monitors and tracks member training progress, providing relevant information for more effective member development.

Challenges and Barriers in HRIS Implementation:

- 1 Lack of Resources and Technological Competence in the Organization. HRIS implementation requires adequate human resources and technological expertise. This challenge can be addressed through member training and the provision of sufficient technological resources.
- 2 Security and Privacy of Member Data in HRIS Usage. The use of HRIS necessitates appropriate security policies and actions to protect member data from unauthorized access or information leaks. Efforts should be made to ensure proper data privacy and security.
- 3 Cultural Change and Change Management related to HRIS. HRIS implementation requires organizational cultural change involving technology adoption and effective change management. Good communication and management support are essential to overcome resistance and ensure successful implementation.

Implementation of HRIS to enhance the efficiency and effectiveness of technology management, several potential problems may be encountered (Kurniasih, 2021):

- 1 Lack of Resources and Technological Competence. HRIS implementation requires skilled human resources with sufficient understanding of technology. Organizations may face challenges in acquiring adequate resources and training members to use HRIS effectively.
- 2 Security and Data Privacy. The use of HRIS involves the processing and storage of sensitive member data. Security and data privacy issues may arise, especially in the absence of appropriate policies or adequate technological infrastructure to protect data from security threats.
- 3 Cultural Change and Change Management. HRIS implementation often involves cultural change within the organization, where members need to become accustomed to the use of technology and adapt to changes in their work processes. The effective implementation of HRIS also requires robust change management, including good communication, member engagement, and strong management support.

Problem-solving plan to address some of the challenges that may arise during the implementation of HRIS to enhance efficiency and effectiveness in technology management:

1. Lack of Resources and Technological Competence. Identifying Human Resource Needs:
 - a. Identify the specific human resource requirements for HRIS implementation.

- b. Training Initiatives. Conduct internal training programs or collaborate with educational institutions or consultants to enhance members' understanding and technological skills related to HRIS.
 - c. Development Programs. Develop member development programs focusing on improving understanding and skills in relevant HRIS-related technologies.
2. Security and Data Privacy: a. Establishing Clear Security Policies:
- a. Set clear and comprehensive data security policies, including necessary data protection measures such as encryption, restricted access, and regular security monitoring.
 - b. Conducting Security Audits. Perform periodic security audits to identify security gaps and take necessary corrective measures.
 - c. Member Education. Educate members on the importance of maintaining data confidentiality and involve them in data security through training and awareness of security policies.
3. Cultural Change and Change Management:
- a. Effective Communication Plan. Develop an effective communication plan to explain the benefits of HRIS usage to members and involve them in the change process.
 - b. Change Management Team. Form a change management team consisting of members from various departments to facilitate cultural change and address emerging barriers.
 - c. Training and Support. Provide training and mentoring to members to help them adapt to changes and understand how to use HRIS in their daily work.

2. Methods

The literature review method is used to gather, review, analyze, and synthesize relevant literature on a research topic. This method allows researchers to gain a comprehensive understanding of the researched topic and build a strong theoretical foundation. The following are the steps that can be followed in conducting a literature review on the implementation of HRIS in improving the efficiency and effectiveness of technology management:

- 1 Identify Research Objectives. Clearly and comprehensively define the research objectives, such as analyzing the benefits of HRIS for technology management, identifying challenges faced, or explaining factors influencing the success of HRIS implementation.
- 2 Identify Keywords and Information Sources:
 - a. Identify relevant keywords for the research topic, such as "HRIS," "technology management," "efficiency," "effectiveness," and so on.
 - b. Search for relevant literature through academic databases, scholarly journals, conferences, books, and other reliable sources.

3. Selection and Review of Literature:
 - a. Read and screen abstracts or summaries of identified literature to select sources relevant to the research topic.
 - b. Read thoroughly the selected literature and record relevant information such as authors, year, research objectives, methods used, key findings, and conclusions.
4. Analysis and Synthesis of Literature:
 - a. Identify findings and patterns emerging from the reviewed literature.
 - b. Identify strengths and weaknesses of existing studies and areas of research that are not well-covered.
 - c. Create synopses or summaries of each reviewed literature to assist in building a comprehensive theoretical foundation.
5. Write the Literature Review. Compile the literature review with a logical structure, including an introduction, research objectives, methodology used in the literature, key findings, and conclusions linking findings to research objectives.
6. References and Citations:
 - a. Cite the sources used in the literature review according to the academic writing format followed.
 - b. Provide accurate citations to prevent plagiarism and give credit to previous authors and researchers.

By using the literature review method, researchers can gather in-depth insights into the implementation of HRIS in technology management from various reliable sources. This literature review can serve as a basis for identifying research gaps, constructing a theoretical framework, and aiding in the design of further research on the topic.

3 RESULT AND DISCUSSION

Introduction to HRIS involves understanding its main components, benefits, and purposes in organizational use. The following are key points to grasp in the introduction to HRIS (Ambo, 2015).

HRIS is an information system designed specifically to manage data and information related to human resources in an organization. It includes various components such as payroll, member data management, performance management, training and development management, and more.

HRIS consists of interconnected and supportive components. Key HRIS components include member databases, software applications, reporting tools, and specialized modules

managing technological functions like payroll, recruitment, training, and performance evaluation.

The use of HRIS provides various benefits to organizations, including:

- a. Improving administrative efficiency by reducing reliance on manual processes.
- b. Enhancing accuracy and integrity of member data.
- c. Facilitating quick and easy access to technology-related information.
- d. Enhancing decision-making by providing accurate and up-to-date data.
- e. Strengthening communication and collaboration between departments and members.
- f. Supporting strategic planning with better data analysis.

HRIS is used to achieve more efficient and effective technology management goals, such as:

- a. Improving the management and use of member data.
- b. Automating technology-based administrative processes to save time and resources.
- c. Supporting better decision-making based on member data analysis.
- d. Enhancing member engagement by providing better information access.
- e. Improving coordination and collaboration between departments and other units.

Introduction to HRIS provides a foundational understanding of the importance of effective information systems in technology management (Permata, 2019). This helps organizations understand the added value through the implementation of HRIS-based technology management and opens opportunities to enhance overall process efficiency and effectiveness.

Efficiency in technology management through HRIS refers to the improvement of efficiency in managing human resources in an organization by utilizing a human resource information system. The use of HRIS can help organizations automate various administrative processes, optimize the use of member data, and enhance overall productivity. Here are several ways in which HRIS can improve technology-based management efficiency (Nurzakiyya, 2013):

1. **Automation of Administration.** HRIS allows the automation of various administrative tasks related to technology, such as payroll, leave and absence management, member data management, and more. By automating these processes, time and effort previously used for manual tasks can be significantly reduced, enabling staff to focus on more strategic and value-added tasks.
2. **Efficient Member Data Management.** HRIS provides a centralized database that allows efficient storage and management of member data. Member data such as job history, qualifications, training, and performance assessments can be easily accessed and updated in real-time. This reduces the need for manual data searches or the use of physical files, saving time and improving data accuracy.

3. **Fast and Accurate Payroll Processing.** The use of HRIS in payroll management allows for the automatic calculation of salaries and allowances based on integrated member data. This reduces the risk of human errors and speeds up the payroll process. Additionally, payroll reports can be generated easily and quickly, minimizing manual efforts.
4. **Tracking and Training Management.** HRIS can assist in tracking member training and development by providing comprehensive records of attended training, obtained certifications, and career development plans. As a result, training management becomes more organized and can be tailored to individual and organizational needs.
5. **Member Self-Service.** HRIS can provide self-service access to members, allowing them to manage their own personal information, apply for leave, access salary information, and perform other administrative tasks. This gives members autonomy in managing their data and needs, reducing the administrative burden on staff and increasing member satisfaction.
6. **Better Reporting and Analysis.** HRIS provides the capability to generate better reports and analyses. The data collected in HRIS can be used to identify trends, measure member performance, and make data-supported decisions. This enables technology management to better evaluate technology-based programs, plan human resource needs, and optimize technology management strategies.

With using by HRIS in technology management, organizations can improve operational efficiency, reduce administrative burdens, and allocate human resources more effectively. HRIS helps transform technology processes into more structured, automated, and measurable processes, ultimately enhancing overall technology management efficiency at a higher level by ensuring decisions and actions are based on accurate, measurable, and integrated information (Wibowo, 2023).

4 CONCLUSION

Implementation of HRIS (Human Resource Information System) in technology-based management can provide significant benefits in terms of efficiency and effectiveness. Through the automation of administrative tasks, efficient member data management, fast payroll processing, structured training management, member self-service, and improved reporting and analysis capabilities, HRIS can enhance operational efficiency, optimize the use of member data, and increase overall productivity.

However, the implementation of HRIS also faces challenges and obstacles, such as limited resources, alignment with organizational needs, and data security and privacy concerns. Organizations need to address these challenges with appropriate strategies, involving relevant stakeholders, and effective change management.

To maximize the benefits of HRIS, organizations should consider selecting an HRIS that suits their needs, involve members in the implementation and change processes, and ensure

adequate data security and privacy. Training and development of members are also crucial to ensure a good understanding of HRIS usage.

In conclusion, it can be stated that HRIS-based technology management has great potential in improving efficiency and effectiveness. With a good understanding of potential challenges and the right strategies, organizations can optimize the implementation of HRIS to achieve their strategic goals in human resource management.

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