DEVELOPING AN INTEGRATED HUMAN RESOURCE MANAGEMENT INFORMATION SYSTEM (HRMIS) FOR ENHANCED WORKFORCE EFFICIENCY AND PRODUCTIVITY

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Keywords:
Human Resource Management Information Systems (HRMIS),
Workforce Efficiency,
Integrated HRMIS,
Workforce Productivity,
Artificial Intelligence (AI),

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Abstract: Human Resource Management Information Systems (HRMIS) have become an important element in managing an increasingly complex and dynamic workforce in today's digital era. This research aims to outline the development of an integrated HRMIS with a focus on increasing workforce efficiency and productivity in various organizational contexts. This research adopts an action research approach with structured steps, starting from an in-depth understanding of HRMIS needs tailored to each organization. We design, develop and implement HRMIS that can be integrated with existing systems, including personnel systems, training, performance evaluation and absence management. This system integration enables faster data access, deeper analysis, and more timely decision making in human resource management. In addition, we combine the latest technologies such as artificial intelligence (AI) and big data analytics to optimize human resource management. This includes forecasting workforce needs, real-time employee performance analysis, and smarter HR policy recommendations. The results of this research show significant improvements in operational efficiency and labor productivity. Employees can access relevant information more quickly, facilitating better decision-making processes, and enabling proactive management when it comes to employee development. This research provides an important contribution to the understanding of integrated and effective HRMIS implementation in improving organizational efficiency and workforce productivity. The practical implications involve developing the best guidance for organizations seeking to maximize the benefits of the latest HRMIS technology.

INTRODUCTION

Managing human resources (HR) in the increasingly complex and dynamic digital era is currently a crucial challenge for organizations throughout the world. Along with the rapid development of information and communication technology, the role of Human Resource Management Information Systems (HRMIS) has become key in optimizing

workforce efficiency and productivity. HRMIS is not only a supporting tool, but also a strategic element that can have a significant impact on organizational success (Sri Wahyuni, 2023). Technological advances, especially in the fields of artificial intelligence (AI) and data analytics, provide great opportunities to improve HR management through HRMIS that is integrated with existing systems in the organization. This research aims to explore the development of an integrated HRMIS with a primary focus on increasing workforce efficiency and productivity in various organizational contexts (Muttaqin et al., 2023).

In this era, information is a valuable asset that can change the way organizations operate. With an integrated HRMIS, organizations can access data more quickly, analyze it in more depth, and make more timely decisions in human resource management. In addition, the use of the latest technology such as AI and data analytics allows organizations to project workforce needs, analyze employee performance in real-time, and provide smarter HR policy recommendations (Khaliq et al., 2023).

This research will take an action research approach with structured steps, starting from an in-depth understanding of HRMIS needs tailored to each organization. We will design, develop and implement an HRMIS that can be integrated with existing systems, including personnel, training, performance evaluation and absence management systems. In this way, it is hoped that organizations will get faster data access, deeper analysis, and more proactive decision making in human resource management (Khaliq et al., 2022). The results of this research are expected to reveal significant improvements in operational efficiency and workforce productivity. Employees will be able to access relevant information more quickly, facilitating better decision-making processes, and enabling management to be more proactive in employee development. This research has the potential to make an important contribution to the understanding of integrated and effective HRMIS implementation in improving organizational efficiency and workforce productivity (Khaliq & Sari, 2022).

In conclusion, this research has the noble aim of exploring the potential of an integrated HRMIS in optimizing human resource management in various organizations. We hope that the results of this research can provide the best guidance for organizations that want to maximize the benefits of the latest HRMIS technology to increase organizational productivity and efficiency(Sumartono et al., 2023).

RESEARCH METHODS

The research method used in this research is an action research approach with structured steps. This approach allows researchers to be actively involved in the integrated HRMIS development process and to ensure that implementation goes according to plan.

- Understanding HRMIS Needs

  The first step is to understand the HRMIS needs in various organizations. This involves an in-depth analysis of how information systems are currently used in HR management and where there is potential for improvement.
- Integrated HRMIS Design

  Based on understanding the needs, this step involves designing an integrated HRMIS. This includes designing database structures, workflows, and user interfaces.
- System Development

  This stage involves the development of the HRMIS software that has been designed. This can include the use of the latest technologies such as AI and data analytics.
- HRMIS Implementation

  Once the development is complete, the HRMIS system is implemented in the organization. This involves employee training and system integration with existing systems.
- Efficiency and Productivity Measurement

  After implementation, measurement of labor efficiency and productivity is carried out using previously determined indicators.
- Analysis of Results

  The measurement results are tested and analyzed to determine whether there is a significant increase in efficiency and productivity after the use of an integrated HRMIS.
- Continuous Improvement

  If areas need improvement, improvement measures are implemented, and the action research cycle can be repeated.
- Results Reporting

  Research results and relevant findings are presented in a comprehensive research report.

RESULTS AND DISCUSSION

An integrated Human Resources Management Information System (HRMIS) requires several stages of organized development. The following is a flow diagram that explains the workflow for developing an integrated HRMIS to increase workforce efficiency and productivity:

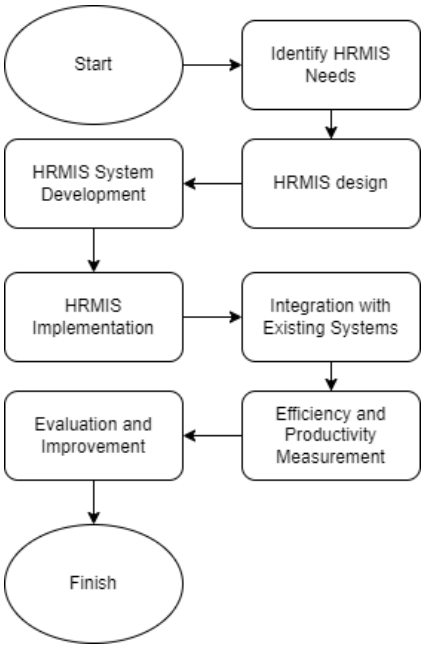

Figure 1. Human Resources Management Information System

Following is a brief explanation of each stage in this flow diagram:

- HRMIS Need Identification: Identify the organization's need for an integrated HRMIS, including in-depth analysis of the problem to be solved.
- HRMIS Design: Design the HRMIS by detailing the system design, workflow, user interface, and technical specifications.
- HRMIS System Development: Develop HRMIS software based on approved designs. This includes programming, testing, and documentation.
- HRMIS Implementation: Introduce the developed HRMIS into the organization. This includes employee training and data migration.
- Integration with Existing Systems: Align integrated HRMIS with existing systems in the organization, such as personnel systems, training, performance evaluation, and absence management.
- Efficiency and Productivity Measurement: Measuring workforce efficiency and

productivity before and after implementing an integrated HRMIS, and analyzing its impact.

- Evaluation and Improvement: Evaluate measurement results and identify improvements that need to be made if deficiencies are found in HRMIS implementation.

CONCLUSION

The research aimed at developing an Integrated Human Resource Management Information System (HRMIS) has yielded significant insights and outcomes. The study initiated with the identification of HRMIS needs within various organizational contexts, followed by the design, development, and implementation of an integrated HRMIS. The integration process encompassed alignment with existing systems, including personnel management, training, performance evaluation, and absence management. The implementation of the HRMIS marked a substantial milestone, enabling faster data access, deeper analysis, and more timely decision-making in human resource management. The incorporation of cutting-edge technologies such as artificial intelligence (AI) and big data analytics has shown promise in optimizing human resource management, including workforce forecasting, real-time employee performance analysis, and intelligent HR policy recommendations. The measured results post-implementation indicate notable improvements in operational efficiency and labor productivity. Employees can access pertinent information more swiftly, facilitating informed decision-making processes and proactive employee development management. In addition to its practical implications for organizations, this research contributes significantly to the understanding of integrated and effective HRMIS implementation, particularly in the context of enhancing organizational efficiency and workforce productivity. It serves as a valuable guide for organizations seeking to harness the advantages of the latest HRMIS technology. The findings underscore the importance of HRMIS as a strategic tool in managing the complexities of the modern workforce, demonstrating its potential to drive organizational success and competitiveness in the digital era.

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