

Implementing Human Resource Information System (HRIS) for Efficient Human Resource Management

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Abstract

Technological developments cause the need for changes in resource management. This is done so that resource management in a company becomes more efficient and can compete well with competing companies. One step in developing resource management to increase efficiency is implementing the Human Resource Information System (HRIS). This research will be conducted to see how the implementation of HRIS can improve the efficiency of Human Resource Management. This research will be carried out using a descriptive qualitative approach. The data used in this study comes from various research results and previous studies. The results of this study then found that the existence of HRIS has the potential to increase the effectiveness and efficiency of HRM. This is because HRIS can optimize human resource management in the areas of planning, recruitment and selection, development, performance evaluation, and compensation. This increase can help the organization succeed in competing with other organizations.

Keywords: *Human Resource Information System (HRIS), Human Resource Management, Company.*

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A. INTRODUCTION

Human resources (HR) is an essential asset in an organization or company that can help the organization achieve its goals. So, organizations must carry out proper and effective human resource management (HRM) to maximize their assets' performance. Human Resource Management (HRM) is a critical thing or problem (Azizi et al., 2021). Because, after all, dealing with people/humans is probably the most challenging thing we will ever experience in this life. Humans are very complex creatures. No one thinks, feels, sees, hears, feels, understands and acts the same as anyone else. That's why HRM is a critical issue in an organization and can affect the performance of HR and HRM (Rosegrant, 2023).

The purpose of HRM is to ensure that employees are used in such a way as to achieve or derive benefits from their abilities and employees are compensated both materially and physically for their work (Chen, 2021).

Thus, a tool is needed to assist companies in HR/HRM management so that HRM performance can be improved and critical HRM problems can be reduced. The tool is HRIS. Many large companies that use HRIS realize the importance of implementing ICT into business processes to increase the company's competitive capabilities and make business processes more effective and efficient, including data and information processing and HRM (Basu et al., 2022). Fast food restaurants are an example of a company implementing SIMSDM/HRIS in the food movement. They

carry out HR management using HRIS to minimize human error in business processes, make business processes more effective and efficient and improve HRM performance. On the other hand, the application of information technology to manage human resources is still incomplete, or only part of the business processes that apply information technology is fragmented (Muqaddim & Hosain, 2021).

Based on the brief explanation above, the researcher is then interested in seeing how implementing HRIS can improve the efficiency of a company's HRM.

B. LITERATURE REVIEW

1. Human Resources Information System (HRIS)

The quality of information is crucial for personnel to be used in compiling company activities to be carried out, the company's ability to obtain, store, maintain and use personnel information is an essential factor for human resource management. Using an HR information system, HR managers and line managers can retrieve all the information needed for hiring, promotion, payroll, or development decisions (Liu et al., 2021).

Each company has a system for collecting and maintaining data describing Human Resources, converting data into information and reporting that information to users. This application is called the Human Resources Information System (HRIS) (Esangbedo et al., 2021).

According to Veithzal Rivai argued that "HR information system (human resources information system) is a systematic procedure for collecting, storing, maintaining, withdrawing and validating data needed by a company to improve HR decisions" (Saputra et al., 2021).

According to T. Hani Handoko, the Human Resource Information System is "a systematic procedure for collecting, storing, maintaining, retrieving and validating various specific data needed by an organization regarding its human resources, personnel activities and work unit characteristics (Elshaer et al., 2023). "By definition, the HR Information System manages specific personnel data, not all data that may be available. The usefulness of storing all the data may not equal the costs that must be incurred. In addition to personnel data, HR Information Systems usually include various data about organizations and jobs (Sari et al., 2022).

According to Sadili Samsudin states that in the staffing system, there is a form of the data model, which includes processes related to the following:

a. Human Resource Planning

As for what is meant by Human Resource planning is a process of analysis and simulation of HR needs following the recapitulation data of HR strengths owned by the organization, linked to plans for the development of future departmental activities. This impacts the procurement of human resources or the placement of human resources in a location or unit that needs it (Prasilowati et al., 2021).

b. Personnel Administration

This process is the most fundamental in collecting information related to the personnel system. Information related to the completeness or complement of the general administration process related to personnel is collected in this process. It includes the process of recording general personnel data (Shen et al., 2023).

c. Compensation and Benefits

The scope of the process included in compensation and benefits is as follows:

- 1). The process of determining salaries and transactions, which includes the process of using 'merit payments' in determining salaries and other income related to additional income such as overtime, meal allowances, housing allowances, remote area incentives, supervisors and the like.
- 2). Providing facilities related to needs outside the scope of work aims to guarantee a sense of security while working at the company, such as health facilities and retirement savings (Daly et al., 2021).

d. Evaluation of performance and personnel

A good assessment system for assessing personnel performance is assessment and feedback. In carrying out the assessment, the essential criteria predetermined by management are used. In addition, based on the study results, which are generally carried out by a team. This can be informed and discussed with the personnel to appreciate further the way of assessment and expectations in carrying out the work. It is hoped that a staffing system can obtain a more objective evaluation system, which refers to the facts found previously (Tumsekali et al., 2021).

e. Education and Training

Education is one of the frameworks for the success of personnel in supporting departmental strategies in their organizational units. The processes included in this staffing system are:

- 1). Planning an education schedule relates to the education the organization will carry out.
- 2). Educational needs planning relates to educational plans to be followed by personnel related to their duties and responsibilities.
- 3). Realization of education aims to record information relating to the equality of personnel in the education they attend. In general, what is included in this case is non-formal education (Uzarski & Broome, 2019).

f. Termination of Employment or Retirement

A process is needed to deal with matters related to completing the personnel's working period, either normally or due to other matters. The system handles the storage of information from all personnel who have worked for the company regarding obligations and rights that must be issued, such as pensions, severance pay, and so on (Hemberg & Bergdahl, 2020).

2. Human Resource Management (HRM)

Human Resource Management (HRM) can be seen as an activity related to managing people/individuals in an organization which can also be defined as a strategic approach to managing work relationships where utilizing people's abilities is essential to achieving sustainable competitive advantage and this achievement is achieved through a series of which is typical of integrated work policies, programs and practices (Snell et al., 2023).

The term Human Resource Management (HRM) is mostly taken by “personnel management” experts. Personnel management is rooted in several traditions:

- a. Welfare tradition, based on a concern to improve the working conditions of employees;
- b. The industrial relations tradition arose in response to the growing power of trade unions until the 1960s and 70s;
- c. The tradition of 'employment control' Personnel management emerged as a response to increasing organizational growth and change rates. Later, personnel management was recognized as a professional discipline in its own right, broadly applicable to all work areas (Macke & Genari, 2019).

The main features of HRM can be summarized as follows:

- a) Efforts to achieve strategic 'fit' or integration between HR and business planning: HR policies should be formulated strategically and directly related to the organization's competitive and value-added objectives. (This might be called 'vertical' integration.)
- b) Developing coherent and mutually supportive HR policies and practices: Strategic community management will be reflected in all HRM areas and systems. (This may be called 'horizontal' integration.)
- c) Commitment orientation: ensures employee identification with organizational goals and values, not just following directions. It is often related to management practices such as flexibility, teambuilding, empowerment, engagement and the creation of strong cultural values (Alzoubi, 2022).
- d) Treatment of people as assets and not costs: regarding employees as a source of competitive advantage and human capital to invest through learning and development opportunities. This is often associated with a strong emphasis on quality delivery, customer satisfaction, satisfactory performance, competence, contribution, and added value.
- e) A unitary approach to employee relations assumes that there is no need for inherent conflicts of interest between employers and employees. This is often reflected in a shift from collective/representative to more individual employee relationships.
- f) Line management is responsible for delivering HRM objectives (Kryscynski et al., 2021).

The main difference between HRM and “personnel management” is arguably in the conceptual understanding. In strategic integration, personnel management is

criticized for being reactive and defensive towards managing people. On the other hand, HRM introduces many new management concepts, such as equality of opportunity (Pudelko & Tenzer, 2023).

C. METHOD

This research was conducted using a descriptive qualitative approach. The method used is a literature study. A literature study is a research method carried out by reading, studying, and analyzing sources of information contained in the literature or written documents relevant to the topic under study. This research uses various relevant literature and documents, such as scientific journals, books, and official HRIS and management documents. The data obtained from the literature study were processed using descriptive analysis techniques. This technique describes and analyses the data obtained systematically and in detail, explaining the results of a literature study. Descriptive analysis is used to identify and classify information from different sources and evaluate the suitability and accuracy of the information on the research topic. The results of this descriptive analysis are used as a basis for developing concepts and formulating conclusions in this study. Using the literature study method and descriptive analysis, this research is expected to provide a better understanding of the application of HRIS in HR management and contribute to the development of the theory and practice of HR management in general (Sari et al., 2022).

D. RESULT AND DISCUSSION

1. Efficient Human Resource Management (HRM).

Human Resource Management (HRM) has a critical role in an organization, especially in achieving the goals of the organization. Efficient HRM must have the right concepts and principles for managing human resources. Efficient HRM principles include planning, recruitment and selection, development, performance evaluation, and compensation. HRM planning involves analyzing organizational needs to determine the number and type of human resources needed. Furthermore, HRM must conduct recruitment and selection appropriately to select employees with the abilities and skills that match the organization's needs (Yong et al., 2020).

Employee development is also an efficient HRM principle, where HRM must provide employee training and development to improve their capabilities. Performance evaluation is also crucial for measuring employees' achievement of organizational goals and providing appropriate feedback for future performance improvement. One of the problems HRM faces is the limited time and sufficient human resources to manage organizational needs. This can cause HR performance to be less than optimal and ineffective. Therefore, companies need to find solutions to optimize HRM.

One way to optimize HRM is by using information technology as a Human Resource Information System (HRIS). HRIS can assist HRM in managing employee data, such as personal data, work history, training history, and performance

evaluations. With HRIS, HRM can manage employee data more efficiently and effectively. In addition, HRIS can also assist HRM in recruiting and selecting employees more quickly and precisely. HRIS can assist HRM in finding candidates that fit the organization needs more efficiently and effectively (Alkashami, 2023).

Utilization of HRIS can also assist HRM in providing employee training and development. HRM can use HRIS to manage employee training and development programs better. HRIS can also assist HRM in evaluating employee performance. HRM can use HRIS to collect employee performance data more efficiently and accurately to provide appropriate feedback for future performance improvement.

By using HRIS, HRM can optimize human resource management more efficiently and effectively. However, remember that HRIS is only a tool and cannot replace the role of HRM in managing human resources. HRM must implement efficient HRM concepts and principles to achieve organizational goals optimally (Mutiarin et al., 2019).

2. HRIS Implementation in HRM

Implementing HRIS (Human Resource Information System) in HRM (Human Resource Management) can benefit organizations. The steps for implementing HRIS in HRM begin with conducting a needs analysis, namely determining what the organization needs in the HRIS system. After that, organizations need to choose the right HRIS system for their needs and then develop a system that suits the needs and characteristics of the organization.

After the HRIS system has been developed, the organization needs to test the system to ensure that the system is working correctly and according to needs. After that, HRM needs to conduct training and outreach to employees so they can use the HRIS system effectively. The final step is system maintenance, which is to perform periodic maintenance and repairs so that the HRIS system continues functioning correctly and can assist HRM in managing human resources more efficiently.

The advantages of HRIS in HRM are numerous. One of the main advantages is time efficiency because HRIS can speed up administrative processes and reduce the time needed to carry out HRM tasks. In addition, the use of HRIS can also save costs because HRM no longer requires a lot of human resources to carry out administrative tasks.

Besides time efficiency and cost savings, HRIS can also provide other benefits such as real-time employee performance monitoring. HRIS can provide accurate and up-to-date data regarding employee performance to HRM. HRIS can also provide easy access to information so that HRM can access employee data easily and quickly.

Although HRIS provides many benefits to organizations, HRIS implementation can also face challenges and obstacles. One of the main challenges is the lack of management support in HRIS implementation. In addition, employee resistance can also be an obstacle because some employees may feel uncomfortable with the changes presented by HRIS. Finally, data security is also an important thing

that must be considered in implementing HRIS because HRIS stores sensitive information about employees.

To overcome challenges and obstacles in HRIS implementation, HRM can take several actions, such as ensuring adequate management support, providing good training and outreach to employees, and paying attention to data security in using HRIS. HRM can also clearly communicate the benefits of HRIS to employees so they can understand and accept the changes.

Overall, implementing HRIS in HRM can benefit organizations in managing human resources more efficiently. However, HRIS implementation must be carried out carefully and pay attention to the challenges and obstacles that may occur.

3. HRIS Utilization Case Study

To better see the efficiency provided by HRIS, the authors look at how the implementation of HRIS can help HRM in two different companies. Both companies are companies operating in the food and beverage sector. The following table below represents the number and details of the two companies:

Table 1. Table of Number and Details of Employees

	Restaurant X	Shop Y
Servers, Waiters and Waitresses	6	20
Chef	4	13
Production	3	-
Total	13	33

The table above shows the number of employees in each company. These employees come to work alternately according to the shifts or working hours determined by management following the "can" work schedule that employees have filled in.

Of the two companies, only Restaurant X's culinary stall has implemented HRIS to carry out HRM, even though the HRIS implemented by Restaurant X is not implemented in its entirety and has only been implemented in one branch because it uses a gradual conversion method. The HRIS implemented by Restaurant X includes the employee attendance process, which collects data on total employee working hours for one month. The results of this data collection can be used as a factor for calculating employee compensation or salaries for one month, data collection on stock inventory and transactions of goods and products along with the employees responsible for these transactions and for making employee work schedules for one month. These are the business processes in HRM that apply HRIS to the Restaurant X culinary stall.

Meanwhile, Shop Y has not implemented HRIS in conducting HRM. All business processes in HRM are carried out manually, be it the process of employee attendance, data collection of all employee working hours, stock and transaction data collection and scheduling. You must fill out an absence form containing shift data, employee name, and work date for the employee attendance process. This attendance

form is also used to fill in the inventory stock recap results and transactions of goods and products. And only the team captain, who acts as the team leader in that shift and doubles as a server or production, can carry out the shopping process to replenish inventory. The business process of making employee work schedules is also done manually, with the initial stages of employees compiling "can" work schedules for one month. The scheduled employees collect information on what dates, days and shifts the employee can come to work. Furthermore, this information will be processed by the authorities, such as the owner or store manager, to make a work schedule for one month.

Both of these companies are experiencing critical problems in implementing HRM. And the critical problems they experience are not much different. Because the business processes and HRM that these two companies do are also not much different because these two companies are engaged in the same field. These critical problems can be seen in the table below:

Table 2. Table of Critical Problems of the Two Companies

Restaurant X	Shop Y
The discipline of employees related to absences	The discipline of employees related to absences
Determination of Employee Policy	Determination of Employee Policy
Sudden Shift Change	Sudden Shift Change
There is a minus income from recap or audit results	There is a minus income from recap or audit results
-	Subjective employee performance appraisal

We can see in the table above that some of the critical problems experienced by these two companies are not much different from one another. HRM is indeed very complex, and companies are required to be able to maximize the potential of employees to be able to achieve organizational goals. Apart from being required to bring out the maximum potential of employees, companies are also required to make employees comfortable working at the company, improve their welfare, and guide and develop employees. Meanwhile, doing all this is not easy because the company deals with living creatures with brains or thoughts, feelings and motivations. This is the complexity of HRM.

The business processes in these two companies doing HRM are not much different. So, to see a comparison of the performance of the two companies, the HRM factors used are also not much different. And below is a table comparing the performance of the two companies in conducting HRM:

Table 3. Performance Comparison Table

Comparison Factor	Restaurant X	Shop Y
Schedule Making	+/- 2 Hours	+/- 6 Hours
Overall Attendance Recap	+/- 5 Minutes	+/- 1 Hour

Salary calculation	+/- 30 Minutes	+/- 2 Hours
Stock Inventory Recap for Every Shift	+/- 5 Minutes	+/- 30 Minutes
Transaction Recap of Every Shift	+/- 5 Minutes	+/- 30 Minutes

In the table above, there is a comparison of company performance in conducting HRM-related to time efficiency. Restaurant X, which uses HRIS, can perform HRM quickly, unlike Shop Y, which does not yet use HRIS. There are several business processes that Restaurant X has not implemented HRIS, such as salary calculation. But the input data for salary calculation has used HRIS so that the salary calculation time can be faster if done manually, like Shop Y. The input data for salary calculation is an overall attendance recap where employees are given a salary according to the number of shifts they get for one month, plus several other factors such as discipline, the employee's performance and so on. For Shop Y, the salary calculation process differs significantly from Restaurant X and other business processes.

After looking at Table 3, we can see the benefits of HRIS in doing HRM, which can make business processes in HRM more efficient. Furthermore, the author will make a table to see the usefulness of HRIS in reducing the critical problems experienced by the two companies. Based on the critical problem data in Table 2, the following is a table of the benefits of HRIS in reducing critical problems:

Table 4. Table of Benefits of HRIS

Critical Issues	HRIS benefits
The discipline of employees related to absences	Check employee discipline in attendance through HRIS because there is a record of employee absence time.
Determination of Employee Policy	It can help to determine employee policies by providing employee performance data.
Sudden Shift Change	Can provide employee data that can be assigned to that shift.
There is a minus income from recap or audit results	Can find out quickly how much the total minus is and who is the employee on duty when there is a minus
Subjective employee performance appraisal	It can help to assess employee performance by providing employee performance data.

We can see the use of HRIS to reduce critical problems in conducting HRM in Table 4. The benefits of HRIS have been felt by Warung Kuliner Restaurant X, which has implemented HRIS for the last six months. The critical problems experienced by each company differ depending on the field of motion of the company and the number of employees. The more employees in a company, the greater the possibility of many critical problems that arise in doing HRM. Therefore, to reduce critical problems that occur to improve company performance in conducting HRM, there are several steps that companies can take by implementing HRIS.

The first step is to map out any critical problems experienced by the company in conducting HRM. This mapping is intended to determine which part of the human resource function the critical problem occurs and in which HRIS domain. After mapping critical issues, the second step is to determine the priority of what critical issues you want to reduce in carrying out HRM in the company. This prioritization aims to determine which critical issues you want to reduce first. The third step is to develop HRIS following the priority of critical issues to be reduced in the HRM of the company. The fourth step is to implement HRIS gradually and slowly so that employees can accept the implementation of HRIS, which concerns the culture within the company, employee psychology and employee habits. The fifth step is to evaluate the results of HRIS implementation to see the level of usefulness of the implemented HRIS. And lastly, if there are other critical problems, they can be reduced by further developing HRIS.

E. CONCLUSION

In human resource management, implementing HRIS has excellent potential to increase the efficiency and effectiveness of HRM. HRIS can assist HRM in optimizing human resource management, from planning, recruitment and selection, development, performance evaluation, and compensation. However, HRIS implementation can face challenges and obstacles, such as a lack of management support, employee resistance, and data security. Therefore, HRIS implementation steps must be carried out carefully and planned to achieve optimal goals in human resource management. Overall, the efficient and effective management of human resources is critical to organizational success. In optimizing HRM, efficient HRM concepts and principles must be implemented appropriately, and information technology in the form of HRIS can be a beneficial tool in human resource management. However, HRM must also pay attention to essential aspects of HRIS implementation, such as data security and employee resistance, to ensure the successful implementation of HRIS and achieve optimal goals in human resource management.

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