The role of information management systems and electronic-HRM on company performance: A study on Indonesian manufacturing

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CHRONICLE	ABSTRACT
	This study aims to analyze the relationship between e-HRM variables and company performance and the relationship between Management Information System (MIS) variables and company performance. This study is a quantitative study with an explanatory method that aims to explain the relationship between symptoms. The data used in this study are primary data through an online questionnaire method distributed using social media. The respondents who became the sample were 389 manufacturing managers determined through simple random sampling. Data processing in this study uses the Partial Least Square (PLS) method with the help of SmartPLS software. The stages of data processing include evaluating the measurement model (outer model) and the structural model (inner model). Evaluation of the measurement model consists of validity testing and reliability testing. Validity testing can be seen from the standardized loading factor value. An indicator is valid when the loading factor value is greater than or equal to 0.7. The reliability test is seen from Cronbach's Alpha and Average Variance Extracted (AVE) values. A construct is declared reliable when Cronbach's Alpha value is greater than or equal to 0.7, and the minimum AVE value is 0.5. The next reliability test is to evaluate discriminant validity. Discriminant validity is evaluated through cross-loading and comparing the AVE root value with the correlation between constructs. If the correlation between the indicator and its construct is higher than the correlation with other block constructs, it indicates that the construct predicts the size of its block better than other blocks. After evaluating the measurement model, an evaluation of the structural model obtained is carried out based on the last model that has been declared valid and reliable. Hypothesis testing of the t-statistic and p-value values generated from calculations using SmartPLS. Path coefficients that have a t-statistic value ≥ 1.96 or a p-value ≤ 0.05 are declared significant. The results of this study show that e-HRM has a positive and significant relationship with Performance, and the Management Information System (MIS) has a positive and significant relationship with Performance.

1. Introduction

In facing competition in the global era, companies are required to work more efficiently and effectively. Increasingly tight competition requires organizations to be able to increase competitiveness in order to maintain the survival of the company. According to Hosain (2017), a company is an organization that brings together people, who are usually called employees or staff, to carry out the company's household production activities. Almost all companies have the goal of maximizing their profits and value and improving the welfare of owners and employees. Employees or staff are the most important elements in determining the progress and decline of a company. To achieve company goals, employees are needed who meet the requirements of the company and must also be able to carry out the tasks that have been determined by the company. According to Al Haziazi (2020), every company will always try to improve the Performance of its employees, with the hope that the company's goals will be achieved. Employee abilities are reflected in Performance; good Performance is optimal

Performance. The Performance of these employees is one of the capitals for the company to achieve its goals. So, employee performance is something that company leaders should pay attention to. The rapid development of technology is very helpful in managing the company. Digital technology transformation is no longer an option for companies but a necessity in carrying out their activities to achieve success so that it can provide a competitive advantage for the company (Umar et al.,2020). The development in this digital era is a new way to bring organizations to success. It is undeniable that digital technology plays an important role in various aspects, one example of which is in Human Resources (HR), which is currently undergoing transformation. HR is considered a source of increased competitive advantage and can influence the company's performance results in a more positive direction. So, the idea of how companies can increase employee work productivity has become a major topic for every company.

According to Khashman and Al-Ryalat (2015), information systems have become a very important part of modern business operations, especially in the increasingly developing digital era. Information systems play an important role in managing data, increasing efficiency, and optimizing business performance. In addition, information systems can also have an impact on employee performance in the organization. The implementation of a good information system can help employees work more efficiently and productively, improve the quality of work, and provide faster and easier access to the information they need (Oyoru, 2023). Conversely, failure to implement the right information system can hinder employee performance and even reduce the overall productivity of the organization. In this case, it is important for organizations to consider various factors that influence the information systems on employee performance, including technological capabilities, infrastructure, training, and an organizational culture that supports innovation and development. In this context, it is important for organizations to develop the right strategy for implementing information systems and ensure that employees have access to the training and support needed to maximize the benefits of the system. By considering these factors, organizations can ensure that the use of the right information system will bring significant benefits to employee performance and the overall business. Improving organizational Performance in the future requires information technology that not only functions as a supporting tool but also as the main weapon to support the success of services to the community to be able to provide the best. The existence and role of information technology in work systems have brought a new era in the development of the world of work, but this development has not been balanced by an increase in human resources that determine the success of employee performance (Muhammad et al. ,2022; Milon et al., 2022).

Human resources have a very important role in any company. Therefore, a method or system is needed to organize and process these human resources so that they can work well to achieve the goals of a company (Bameri et al., 2018). For this reason, the human resources department in a company must find the right way to provide change and improve the quality of existing human resources, and one of them is by utilizing new technology. The development of information and communication technology, which is currently widely chosen to improve the capabilities of human resources in organizations, is electronic human resource management (Marler & Parry, 2016). Along with the increasing development of HR technology, business actors are encouraged to be able to follow the various changes that exist, including leaving HR work that is still manual. In addition to process efficiency, digitalization will also increase accuracy, provide better analytical capabilities, and provide a more satisfying employee experience, which will affect employee engagement. The background of HR digitalization is driven by several factors. First, the development of information and communication technology has opened up new opportunities for organizations to manage their human resources more efficiently and effectively. Second, the increasing complexity of human resource legal requirements and regulations has prompted organizations to adopt digital solutions that can help them comply with regulations and reduce compliance risks. In addition, HRM digitization also provides benefits such as reducing administrative burdens, increasing employee data accessibility, facilitating collaboration and communication between departments, and providing better insights through data analytics (Susananto et al., 2023). All of these help organizations optimize the use of their human resources and make better decisions in terms of employee development, performance management, recruitment, and payroll. In order to get more detailed information about the background of HRM digitization, it is advisable to refer to online resources such as research articles, industry reports, and companies' websites that provide HRM solutions (Shamout et al., 2022).

2. Literature Review

2.1 Electronic Human Resource Management (e-HRM)

According to Ahmed et al. (2019), E-HRM is a web-based tool that automatically supports human resource processes. E-HRM is a set of innovative methods that function to overhaul traditional systems in organizations with the aim of improving human resource performance and providing competitive advantages for organizations (Khan & Talib, 2023). E-HRM is administrative support for human resource functions in organizations that use information and communication technology. Another definition of E-HRM is an application of information and communication technology that supports quality human resource (HR) activities and helps organizations improve their business processes and competitive advantages. Based on several definitions of electronic human resource management (EHRM) above, it can be concluded that E-HRM is a tool or method based on new information and communication technology that aims to implement human resource strategies, policies and practices in organizations that can help organizations improve their business processes and competitive advantages. Currently, more and more companies are starting to introduce e-HRM. This is because organizations continue to strive to find the right way to provide change and improve the quality of their existing employees. According to Umar et al. (2020) E-HRM

is understood as a set of information technology applications that include all mechanisms and content between human resource management and information technology that aim to create value within and across organizations for employees and management. In other words, e-HRM is not only an information technology (IT) tool to carry out HR activities but also a means to integrate various HR and IT activities in the organization and try to improve employee working conditions and organizational Performance as a whole. E-HRM is a set of innovative methods that function to overhaul traditional systems in organizations with the aim of improving human resource (HRM) performance and providing competitive advantages for the organization (Khan & Talib, 2023). E-HRM is the use of technology-based channels to support the implementation of human resource management strategies, policies, and practices in the organization. E-HRM is a way to implement human resource management strategies, policies, and practices in an organization through targeted support using online or electronic technology. In practice, Electronic HRM involves the planning, implementation, and use of information systems to connect and support actors involved in human resource management activities. With this electronic HRM, HR tasks and practices can be automated, and the traditional ways of using paper can be changed to be more efficient and faster (Alkhodary et al.,2021).

2.2. Management Information System (MIS)

A management information system is a system that performs functions to provide all information that affects all organizational operations. According to Al Shobaki et al. (2017), a management information system is a collection of systems that provide information to support management. A management information system is an early type of information system developed to support managerial decision-making. Information systems produce information products that support many of the daily decision-making needs of managers and business practitioners. Reports, displays, and responses generated by a management information system provide information that has been determined by decision-makers to meet information needs. According Susananto et al. (2023), an information system has six components, namely input, model, output, technology, database and control. These six components must exist together to form a whole. If one or more of these components are missing, the information system will not be able to perform its function, namely data processing, and will not be able to achieve its goals, which are producing relevant, timely, and accurate information (Hoq, 2021). A management Information System is a system designed by an organization or company to collect, store, and disseminate data in the form of information needed to carry out company activities and make operational decisions. A management information system is an organized approach to studying the needs of management information for decision-making, strategy, and tactics. The management information system works by collecting data, processing data, and storing data in a centralized database. The data is then processed into information, and then it can be accessed and updated by everyone who has the authority according to their goals (Khan & Talib, 2023). Management Information System is designed to change data into digital information, where the information is to support the decision-making process by related parties in an organization or company.

2.2. Company Performance

Performance is an expression of ability based on knowledge, attitude skills and motivation in producing something". Performance is "the level of success in carrying out tasks and the ability to achieve predetermined goals. Performance is said to be good and successful if the desired goals can be achieved properly. Thus, it can be concluded that the term performance indicates the existence of a person's actions in carrying out their duties based on their abilities, attitudes and motivations. According to Sylvester et al. (2015), differences in individual performance in work situations are the result of differences in individual characteristics and different situations. Performance is the appearance of a person's work results in terms of both quantity and quality in an organization (Panos & Bellou, 2016). Performance can be in the form of individual or personal Performance. The appearance of work results is not limited to personnel who occupy functional or structural positions but also to all personnel in the organization. The description of work involves three important components, namely goals, measurements and assessments. Determining the goals of each organizational unit is a strategy to improve performance. This goal will provide direction and influence how the work behavior expected by the organization should be towards each personnel. However, determination alone is not enough because it is needed to know whether a personnel member has achieved the expected performance. For that, quantitative and qualitative measures of performance standards for each task and position of personnel play an important role. The third aspect of the definition of work is research or measurement (Khan & Talib,2023). Regular performance measurement is said to be the process of achieving the work goals of each person. This action will make personnel always oriented towards goals and work behavior in accordance with and in line with the goals to be achieved. Thus, it is clear that the understanding of Performance, along with a description of goals, operational measures, and regular measurements, plays an important role in increasing personnel motivation. Referring to the opinion above that employee performance is determined by Ability, motivation and attitude, Performance in carrying out its functions does not stand alone but is related to satisfaction and level of reward, conducive conditions, and relevant systems; in other words, individual factors, organizations and external environments can affect employee performance (Panos & Bellou, 2016).

2.4. Relationship between e-HRM and Performance

According to Nurlina et al. (2020), the existence of e-HRM helps companies modify HR processes and practices from previously using a lot of paper and direct face-to-face discussions, now switching to using online media to shorten time and

reduce costs. There are four factors that provide evidence that the implementation of e-HRM can increase productivity, reduce costs, increase return on investment, and improve employee communication (Huo et al., 2024). Research on the effect of e-HRM implementation on employee productivity is considered important because productivity plays a major role in organizations; increasing employee productivity can increase the company's competitiveness, and many companies introduce e-HRM to allow HR and other employees to focus more on other activities that have greater and more important key values. According to Bharti (2015), the implementation of e-HRM can enable companies to increase employee productivity by carrying out work activities faster than traditional implementations and allowing employees to focus more on their core tasks. The implementation of E-HRM has a positive impact on the organization. The presence of E-HRM makes it easier for employees to access information about their tasks and obligations, as well as access and process data related to personal data such as information about salaries, employee personal data, performance management, training, recruitment and others. E-HRM also improves and enhances the quality of organizational services to the public. According to Obeidat (2016), E-HRM helps organizations to build a more committed workforce. The use of E-HRM in organizations can maximize the potential and productivity of their employees. Furthermore, Hosain (2017) explained that technology plays an important role in human resources, allowing easy interaction and communication between employees and managers (Shrivastava, et al., 2022). Based on several opinions regarding the benefits of E-HRM above, it can be concluded that the implementation of E-HRM provides several benefits, such as providing time and cost efficiency, providing convenience in business processes, increasing organizational interaction and communication, optimizing the development and productivity of human resources. Based on the study above, the hypothesis was formulated

H₁: *e-HRM has a positive and significant relationship with Performance.*

2.2. Relationship between Management Information Systems (MIS) and Employee Performance

According to Bharti (2015), MIS is related to the activities of inputting, processing, and recording data into useful information for organizational life, both for management elements and employees; for that, an information system is needed that can facilitate the process. The smooth flow of the information system will make it easier for employees to make decisions or take the data or information needed. Conversely, data and information that are difficult to obtain will make it difficult for employees to make good decisions for the benefit of the company. Based on these conditions, it is clear that data and information that are managed well and smoothly will provide benefits to employee performance. Therefore, it is clear that MIS plays a direct role in employee performance. This management information system will provide all information with fast access so that it is easy to collect data for decision-making purposes and smooth administrative affairs in the company. According to Bameri et al. (2018), all activities carried out by and within an organization or company require information. Likewise, all activities produce information that is useful for the organization carrying out the activity as well as for other organizations. Therefore, information is useful for all activities in an organization or company. If the management information system is designed and implemented well, there will be many benefits that can be obtained by company management, namely facilitating management and helping the decision-making process because the management information system provides information for company management for two purposes, namely planning and supervision (Shrivastava et al., 2022). One of the factors that influences the level of success of an organization is employee performance. Improved technology can make it easier for employees to process data; the better the management information system will provide good Performance for its employees, while good Performance will certainly have an impact or good information for the company itself so it can affect the survival of the company. Based on the study above, the hypothesis was formulated.

H₂: *Management Information Systems (MIS) have a positive and significant relationship with Performance.*

3. Method

This research is quantitative research with an explanatory method that aims to explain the relationship between symptoms. This study intends to conduct hypothesis testing to explain the relationship and influence between variables. The data used in this study are primary data through an online questionnaire method distributed using social media. This study uses a purposive sampling technique, namely selecting samples based on criteria according to research objectives. The respondents who became the sample were 389 manufacturing managers, while the questionnaires that were returned completely and filled out were 348 questionnaires, so data processing will use these 348 data. To conduct data analysis in this study using the inferential statistical method. The questionnaire answers are in the form of a Likert scale, which is an interval scale of 1 to 5. Data processing in this study uses the Partial Least Square (PLS) method with the help of SmartPLS software. The stages of data processing carried out include the evaluation of the measurement model (outer model) and the evaluation of the structural model (inner model). Evaluation of the measurement model consists of validity testing and reliability testing. Validity testing can be seen from the standardized loading factor value. An indicator is said to be valid when the loading factor value is greater than or equal to 0.7. Meanwhile, the reliability test is seen from Cronbach's Alpha and Average Variance Extracted (AVE) values. A construct is declared reliable when Cronbach's Alpha value is greater than or equal to 0.7, and the minimum AVE value is 0.5. The next reliability test is to evaluate discriminant validity. Discriminant validity is evaluated through cross-loading and comparing the AVE root value with the correlation between constructs. The measure of cross-loading compares the correlation of indicators with their constructs and constructs from other blocks. If the correlation between the indicator and its construct is higher than the correlation with the construct of other blocks, it indicates that the construct predicts the

size of their block better than other blocks. After evaluating the measurement model, an evaluation of the structural model obtained is carried out based on the last model that has been declared valid and reliable. Evaluation of the structural model consists of hypothesis testing and moderation testing. The first step in conducting a hypothesis test is to see the significance of the relationship between constructs, which can be seen from the path coefficient. This calculation looks at the t-statistic and p-value values generated from calculations using SmartPLS. Path coefficients that have a t-statistic value ≥ 1.96 or a p-value ≤ 0.05 are declared significant.
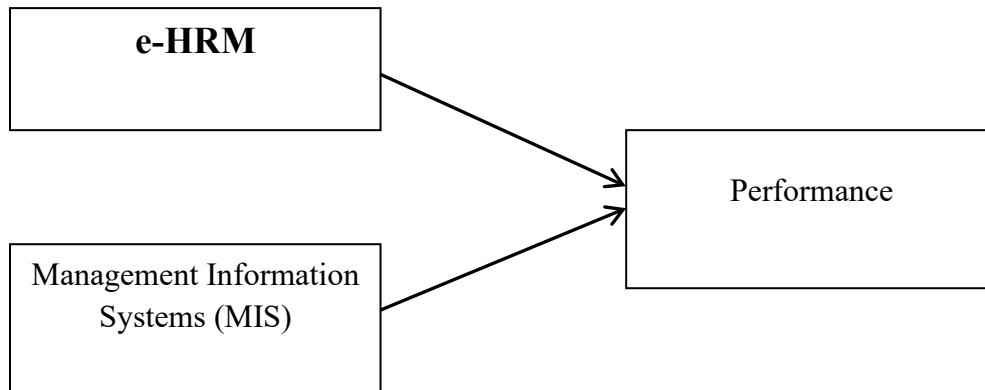

Fig. 1. *Research Model*

4. Results and Discussion

4.1 Validity Test

A validity test is a measuring instrument that is tested for a level of effectiveness of the measuring media to obtain valid data or not. A validity test is used to measure whether the questionnaire instrument used in this study will be feasible and able to present accurate data. There are two types of models in conducting validity tests, namely Convergent Validity and Discriminant Validity. Convergent validity is useful for measuring how big the correlation is between latent variables and their constructs with the loading factor standard. If there is an indicator that does not meet the requirements, it must be removed. Outer Loading is done by looking at the loading factor score with the Rule of Thumb in the convergent validity assessment, which can be seen from the loading factor value between 0.6 and 0.7 for exploratory research. The testing requirements for the use of Average Variance Extracted (AVE) can be said to be valid, and the value of each construct must be greater than 0.5.
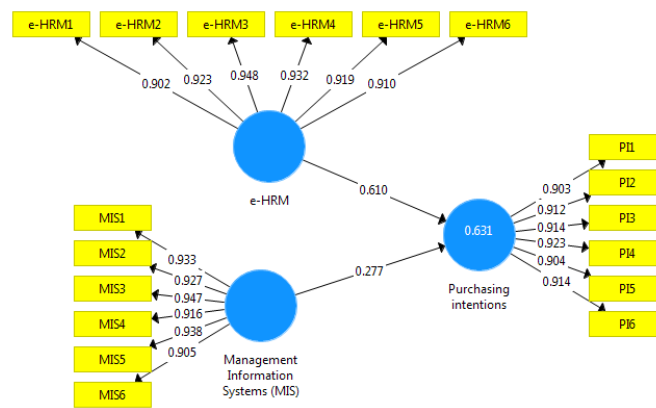

Fig. 2. Validity Testing

Table 1
Average Variance Extracted (AVE)

Variables	Average Variance Extracted (AVE)
e-HRM	0.675
Management Information Systems (MIS)	0.693
Performance	0.691

4.2 Reliability Test

A reliability test is a testing tool conducted in research to show the extent to which the questionnaire can be trusted and relied upon. This shows to what extent the measurement results remain consistent when carried out with the same symptoms and

using the same measuring instrument. It can be said that a reliable measuring instrument can produce consistent results even though repeated measurements are carried out. Before conducting a reliability test, the initial stage must be a data validity test. Therefore, the data measured must get valid results. The reliability test used two methods, namely, Cronbach Alpha, and Composite Reliability. Composite Reliability: each variable can be said to be reliable if it has a value> 0.6. Reliability is measured using the Cronbach Alpha statistical test. If the value> 0.6, then it can be considered reliable.

Table 2
Reliability testing

Variables	Composite Reliability	Cronbach Alpha
e-HRM	0.784	0.634
Management Information Systems (MIS)	0.734	0.683
Performance	0.765	0.623

4.3 Structural Model Test (Inner Model)

The inner model is a model used to determine the cause and effect of the relationship between latent variables. When testing using PLS, with the R-square value, which is the goodness of fit test, the assessment looks at the R-square value for each dependent variable. Changes in the R-square value can be used to see the influence of independent variables on dependent variables and determine whether they have a substantive influence. There are structural models with several criteria as follows.

Table 3
R-Square

Variables	R-Square	Adjusted R-Square
Performance	0.631	0.620

Table 4
Hypothesis testing

Hypothesis	p-	T	Result
e- HRM → Performance	0.000	8.941	Supported
Management Information Systems →	0.000	4.159	Supported

4.4 Hypothesis Testing

Hypothesis testing is one of the important procedures in statistics. In conducting hypothesis testing, the t-statistic value and probability value are used. Hypothesis testing for the statistical value for alpha is 5% or 0.05 (p-values <0.05), and the value for the t-statistic used is 1.96. The criteria in the hypothesis will be declared accepted if the t-statistic> 1.96.
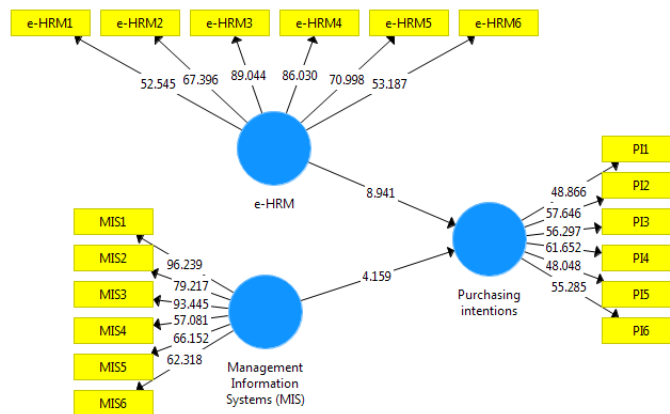

Fig. 3. Hypothesis Testing

4.5. Relationship between e-HRM and Performance

Based on the results of the SmartPLS analysis, a p-value of 0.000 <0.050 was obtained, so it was concluded that e-HRM has a positive and significant relationship with Performance. The purpose of E-HRM is to reduce costs, improve HR services, and improve strategic orientation. One of the main goals of Electronic HRM is to reduce costs associated with the HR process. By using digital technology and online platforms, companies can reduce paper usage, print documents, and save time in HR administration. According to Obeidat et al. (2016), the use of E-HRM allows companies to provide more efficient and responsive HR services to employees. Through an integrated self-service system, employees can independently access their personal information, such as salary, work schedule, and employee benefits. E-HRM can help improve the company's HR strategy orientation. By collecting and analyzing employee data digitally, companies can identify trends, manage Performance, and make smarter decisions in workforce planning (Shamout et al., 2022). The use of technology such as Electronic HRM in company HR activities can improve the efficiency, service, and strategic role of HR. By using this technology, companies can gain a competitive advantage through more efficient workforce management and effective support. By adopting this technology, companies can optimize the use of technology to manage HR more efficiently. This improves service and allows the role of HR functions to become more strategic. According to Nurshabrina and Adrianti (2020), the use of Electronic HRM

can also provide a competitive advantage with more effective workforce management and appropriate support. Electronic HRM provides various advantages and benefits in human resource management. Some of the advantages of E-HRM include Improving service quality. Ensuring efficient service at incredible speed. Reducing costly time and effort. Increasing accuracy and reducing human bias. Allowing rapid data creation, reporting, and analysis. Benefiting all parties through standardization and automation (Alkhodary et al.,2021). Managing employee data from different locations fairly and quickly. Performing important HRM functions such as recruitment, selection, training, and development with web-based technology. Playing an important role in a paperless office. Maintaining employee confidentiality when providing evaluation/feedback. Thus, Electronic HRM provides various advantages and benefits in human resource management, enabling efficiency, accuracy, and better decision-making in the organization. One factor that can affect employee work productivity is technology. Therefore, many companies are now starting to innovate and adopt HR technology to increase employee productivity. According to Nurshabrina and Adrianti (2020) E-HRM itself is one of the HR technologies that is currently being widely used. More and more companies are starting to introduce e-HRM, which is understood as a set of information technology applications that include all integration mechanisms and content between HR and IT aimed at creating value within and across the organization for employees and management. The HRM concept can be said to be the application of HR functions through digital technology (Panos & Bellou, 2016).

4.5. Relationship between Management Information System (MIS) and Performance

Based on the results of the SmartPLS analysis, a p-value of 0.000 <0.050 was obtained, so it was concluded that the Management Information System (MIS) has a positive and significant relationship with Performance. The use of a management information system has many benefits because, as previously explained, the purpose of a management information system is for decision-making, which affects both management and the organization as a whole. Data is an important source for decision-making. Accurate data is needed in a business because this data is a tool that will be related to strategic decisions. Through the management information system, data will be entered and then processed automatically, thus helping the management team's tasks more effectively and efficiently. Moreover, with systematic data, it will be easier for management to process data in real time. The management information system also provides information services that can be used as a basis for planning, directing, and supervising the management team. According to Almashyakhi et al. (2022), the information data produced is then used by other divisions that need the data. Data exchange between one division to another can form a healthy relationship in a company. Not only that, the management information system also helps in delegating tasks to other parties easily. Coordination with the system is done quickly without having to meet in person. When information data is collected and processed accurately, of course, this will affect the quality of human resources. Because, like it or not, human resources who use this system must understand technology (Shrivastava et al., 2022). With quality human resources, it will affect the development of the company's business in the future. When the management information system has been running in the company, there will be minimal human error because everything is done systematically. The minimal errors that occur will increase employee work productivity. That way, operational costs can be reduced with the help of the information system. According to Fındıkl and beyza Bayarçelik (2015), employees find it easier to analyze the company's Performance from year to year because all data and changes that occur have been stored in the system. With the help of the management information system, the business being run becomes easier to analyze from year to year because all changes have been stored in the system. The benefits of using a management information system are that it makes it easier for management to plan, direct, and supervise the running of the business (Shrivastava et al., 2022).

4.6. Discussion

The implementation of E-HRM has a positive impact on the organization. The presence of E-HRM makes it easier for employees to access information about their duties and obligations, as well as access and process data related to personal data such as information about salaries, employee personal data, performance management, training, recruitment and others. E-HRM also improves and enhances the quality of organizational services to the public. E-HRM helps organizations to build a more committed workforce. According to Almashyakhi et al. (2022), the use of E-HRM in organizations can maximize the potential and productivity of their employees. Furthermore, technology plays an important role in human resources, allowing easy interaction and communication between employees and managers. Based on several opinions regarding the benefits of E-HRM above, it can be concluded that the implementation of E-HRM provides several benefits, such as providing time and cost efficiency, providing convenience in business processes, increasing organizational interaction and communication, optimizing the development and productivity of human resources. Organizations implement E-HRM because they are believed to be able to help organizations manage their human resources and provide added value to the role of human resources in the organization, which, of course, affects the competitive advantage of the organization or company. According to Shamaileh et al. (2022), e-HRM also aims to improve the quality of service of an organization or company. The implementation of E-HRM aims to make the time and cost of activities in the organization more efficient, and this is the main factor driving organizations to implement E-HRM. E-HRM aims to improve the strategic orientation of human resources, reduce costs and time, improve the quality of service and increase the competitive advantage of the organization.

According to Nyathi and Kekwaletswe (2024), Digitizing Human Resource Management (HRM) is becoming increasingly important and urgent in today's digital era. Here are some reasons why HRM digitization is essential: HRM digitization automates many time-consuming manual tasks such as employee data management, recruitment, and payroll. This reduces

the administrative burden and allows HR teams to focus on more strategic tasks. With increased efficiency, organizational productivity can increase. HRM digitization enables real-time and centralized accessibility of employee data. According to Shamout et al. (2022), employee-related information such as work history, Performance, and training can be easily accessed by managers and employees themselves. This facilitates better decision-making and allows employees to manage their personal information. With HRM digitization, employee data can be better analyzed using data analytics and artificial intelligence techniques. This provides deeper insights into employee trends, Performance, and development needs. With this information, management can make better decisions regarding employee development, succession planning, and overall business strategy. HRM digitization enables the use of self-service platforms that allow employees to access their own information, apply for leave, manage career goals, and access online training. This provides a better employee experience, promotes autonomy, and increases employee engagement.

According Panos and Bellou (2016), digital HRM leverages software solutions and cloud-based technologies to automate and integrate various aspects of HR management, including recruitment, employee training and development, performance management, administration and payroll, and HR data analysis. Digital HRM enables companies to integrate various HR functions into one unified platform. This simplifies access to and management of employee data and reduces the need for separate manual systems. Digital HRM enables companies to automate the recruitment process, from job posting and candidate screening to onboarding. This helps save time and speed up the hiring process. According Shrivastava et al. (2022) Digital HRM provides a platform for online employee training and development, either through interactive learning modules, e-learning, or video training. This allows employees to access training materials anytime and anywhere. Digital HRM provides tools to track and manage employee performance in a structured manner. This system allows companies to create and manage performance goals, provide real-time feedback, and conduct periodic performance evaluations. Digital HRM automates HR administration processes such as employee data management, attendance, leave, and payroll. This helps reduce human errors, speed up processes, and increase efficiency. Digital HRM uses data analytics to provide better insights into HR aspects such as employee productivity, attendance, satisfaction levels, and employee retention. This helps management make more informed and strategic decisions.

According to Alomari (2023), management information systems can be interpreted as patterns that are made to resemble systems to manage all information and data in a company. With the management information system, company management usually becomes better and more effective, and each member of the company can work according to the management's determination in their respective sections. This management information system not only manages but also collects, as processing, storage, and distribution of information between members in the business. The second benefit of the management information system is that it is a tool that facilitates making the right and fastest decisions for a business. Usually, making a decision for a business requires a lot of accurate data, not just fast, and SIM can provide it. Through the management information system, the data that has been entered will usually be processed automatically to facilitate management tasks. Accurate data that can be taken in real time can be used as a benchmark for making the right decisions. The next benefit of the management information system is that with the system, the management of coordination between staff in the company becomes structured. If the coordination and management of information are right, then the divisions in each company will have a healthy relationship. In addition, the delegation of tasks is getting better. With the management information system, you can manage data accurately and quickly. Because this also has an impact on the Performance of workers in the company. If workers can adapt to existing technology, then their quality can be much better, which will advance the company. With the help of a management information system, you can reduce certain operational costs. Because the possibility of errors from workers or human error is very small, the benefits of a management information system will increase the productivity of human resources in the company. In addition, you can analyze the company's Performance from year to year very easily because data is processed and stored neatly in the system. That way, operational costs are reduced. Those are the five benefits of a management information system that you can use in business, such that running a business is much more efficient and effective than not using a system.

4.7. Implications

In adopting HRM digitalization, it is important for organizations to consider the advantages and disadvantages. Some steps that can be taken to overcome the disadvantages are: Organizations must adopt proper security measures, such as data encryption, two-factor authentication, and strict security policies. The use of the latest firewalls and security software is also necessary to protect employee data from security threats. Organizations need to provide adequate training to HR staff and employees on the use of HRM digital solutions. This will help them understand how to use the technology effectively and maximize its benefits. Organizations must have a competent IT team that has expertise in maintaining the IT infrastructure required to support HRM digital solutions. Regular monitoring and updates must be carried out to ensure good availability and Performance. It is important for organizations to maintain human interaction in human resource management. While digitalization allows for automation and efficiency, it is still important to ensure effective communication, individual understanding, and personal support. Overall, HRM digitalization can provide many significant benefits to organizations, including increased efficiency, data accessibility, better decision-making, and improved employee experience. However, it is important to manage potential pitfalls, such as data security and reliance on technology, in a wise and proactive manner.

In order for the information produced by the information system to be useful for management, the system analysis must know the activities for each level of management and the types of decisions taken. Based on the definitions above, it can be seen that the purpose of establishing a management information system (MIS) is so that the organization has useful information in making management decisions, both routine and strategic. So, MIS is a system that provides organizational managers with data and information related to the implementation of organizational tasks. Some of the benefits or functions of the information system include the following: 1. Increasing the accessibility of data presented in a timely and accurate manner for users without requiring an intermediary information system. 2. Ensuring the availability of quality and skills in using information systems critically. 3. Developing an effective planning process. 4. Identifying the need for supporting skills for information systems. 5. Determining investments that will be directed at information systems. 6. Anticipating and understanding the economic consequences of new information systems and technologies. 7. Improving productivity in system development and maintenance applications. 8. Organizations use information systems to process transactions, reduce costs and generate revenue as one of their products or services. 9. Banks use information systems to process customer checks and create various reports of bank statements and transactions that occur.

5. Conclusion

Based on the results of the SmartPLS analysis, it is concluded that e-HRM has a positive and significant relationship with Performance. The benefits of e-HRM are increased employee engagement and satisfaction, where each employee becomes more connected, information is delivered quickly and increased work productivity. Increase the speed and accuracy of the recruitment process, optimize the interview process and psychological tests, and strengthen candidate trust in the company. Reduce operational costs and manual workload and minimize the possibility of human error so that HR can focus on strategic tasks and the overall work process becomes more optimal. The decision-making process is more precise based on measurable information and the existence of accurate and relevant data. Facilitate employees in the process of submitting leave, overtime, absence, and reimbursement without a complicated process. Employee evaluation is more measurable and eliminates subjectivity so that assessments can be carried out transparently. Support better company HR management so that the achievement of company objectives is faster. Facilitate the provision of relevant training to support employee growth and skill development. The use of a management information system can help companies make quick decisions when needed. Dynamic business conditions do not allow the slightest error and always demand quick decisions for critical conditions. With well-archived data that can be presented as needed, the necessary analysis can be arranged in such a way that the company is able to make the best decisions in a relatively short time. The ease of storing and archiving this data will be very useful for compiling, analysis and planning. As a preparatory step, predictions and forecasts must be made to prepare for the risk of a crisis that may strike. The existence of a database that is managed in an integrated manner within the company allows this data to be managed openly while maintaining its confidentiality. In order to provide transparency and ease of access to parties who need this data while also carrying out a supervisory function. So, there is no fraud committed. The management information system allows all parties to directly see the history of the input entered, so that it is easy to detect when there is incorrect data or intentionally made incorrectly for a specific purpose. Confidential because access to data can be arranged in such a way that only interested staff can enter and use the data. In this way, the potential for data leakage can be minimized, and company secrets remain safe. The company's competitiveness in general will also increase. Optimal data management, thanks to the use of ERP services, will make the company work faster, more adaptive, and more responsive to circumstances. Without leaving the main values that are the basis of the company, the development of the company can be accelerated on a certain scale. Access to the required data can be simplified, the bureaucratic process can be accelerated, and all matters related to data validation can be done directly. Companies that have used the management information system services from ERP products will really understand the context of this third point. The benefits will be felt directly, and the company will automatically have high Performance and strong competitiveness in the industry.

References

Ahmed, M. T. (2019). E-HRM Practices and its impact on Organizational Performance: A study on the Manufacturing industry in Bangladesh. *European Journal of Business and Management, 11*(6), 50-60.

Al Haziazi, M. (2020). Impact of E-Hrm System on Organizational Performance In The Sultanate Of Oman. *International Journal of Management (IJM), 11*(8), 446-458.

Al Shobaki, M. M., Naser, S. S. A., Amuna, Y. M. A., & El Talla, S. A. (2017). The Efficiency of Information Technology and its Role of e-HRM in the Palestinian Universities. *International Journal of Engineering and Information Systems, 1*(5), 36-55.

Alkhodary, D. (2021). The impact of e-HRM on corporate sustainability: A study on the SMEs in Jordan. *International Journal of Entrepreneurship, 25*(6), 1-15.

Almashyakhi, A. M. (2022). An evidence-based review of e-hrm and its impact on strategic human resource management. *Journal of Human Resource and Sustainability Studies, 10*(3), 542-556.

Alomari, A. (2023). Exploring the impact of e-HRM on organizational Performance: A mediated model. *International Journal of Data and Network Science, 7*(4), 1913-1920.

Bameri, N., Keshtegar, A., & Mehdibeigi, N. (2018). Investigating the Effect of e-HRM Functions on Organizational Innovation by the Mediating Role of Knowledge Management Capabilities. *Public Management Researches, 11*(41), 139-164.

Bharti, P. (2015). Impact of E-HRM system on organizational Performance: A case study on the banking sector. *International Journal of Advance Research and Innovation, 3*(4), 732-734.

Fındıklı, M. A., & beyza Bayarçelik, E. (2015). Exploring the outcomes of electronic human resource management (E-HRM)?. *Procedia-Social and Behavioral Sciences, 207*, 424-431.

Hoq, M. Z. (2021). A comprehensive review of contemporary issues of electronic human resource management (E-HRM). *Global Journal of Economics and Business, 11*(2), 278-296.

Hosain, S. (2017). The impact of E-HRM on organizational Performance: Evidence from selective service sectors of Bangladesh. *International Journal of Human Resources Management (IJHRM) ISSN (P),* 2319-4936.

Huo, X., Qi, M., & Wang, S. (2024). The application of electronic human resource management systems (e-HRM) in HR management. *Advances in Economics and Management Research, 10*(1), 316-316.

Khan, K. A., & Talib, N. (2023). Relating e-HRM practices with Transformational e-HRM outcomes: The mediating role of proximal outcomes: Relating e-HRM practices with Transformational e-HRM outcomes. *Journal of Workplace Behavior, 4*(2), 1-25.

Khashman, A. M., & Al-Ryalat, H. A. (2015). The impact of electronic human resource management (E-HRM) practices on business performance in Jordanian telecommunications sector: The employees perspective. *Journal of Management Research, 7*(3), 115-129.

Marler, J. H., & Parry, E. (2016). Human resource management, strategic involvement and e-HRM technology. *The International Journal of Human Resource Management, 27*(19), 2233-2253.

Milon, M., Alam, M. A., & Pias, M. H. (2022). Exploring the key practices of E-HRM in place of traditional HRM: A study on private industry of Bangladesh. *Journal of Human Resource and Sustainability Studies, 10*(3), 403-417.

Muhammad, G., Shamsi, A. F., & Memon, K. (2022). Transformation of HR strategies through e-HRM and organizational Performance. *Middle East Journal of Management, 9*(3), 294-309.

Nurlina, N., Situmorang, J., Akob, M., Quilim, C. A., & Arfah, A. (2020). Influence of e-HRM and human resources service quality on employee performance. *The Journal of Asian Finance, Economics and Business, 7*(10), 391-399.

Nurshabrina, N., & Adrianti, R. (2020). The effect of E-human resource management (E-HRM) on cost efficiency and productivity of employees in the company. *International Research Journal of Advanced Engineering and Science, 5*(1), 212-215.

Nyathi, M., & Kekwaletswe, R. (2024). Electronic human resource management (e-HRM) configuration for organizational success: inclusion of employee outcomes as contextual variables. *Journal of Organizational Effectiveness: People and Performance, 11*(1), 196-212.

Obeidat, S. M. (2016). The link between e-HRM use and HRM effectiveness: an empirical study. *Personnel review, 45*(6), 1281-1301.

Oyoru, R. A. (2023). Effect of E-HRM Practices on Organizational Performance: A Study of the Banking Industry in Nigeria. *Journal of Public Administration, Policy and Governance Research, 1*(1), 84-97.

Panos, S., & Bellou, V. (2016). Maximizing e-HRM outcomes: a moderated mediation path. *Management Decision, 54*(5), 1088-1109.

Shamaileh, N., AlHamad, A., Al-Qudah, M., Mohammad, A., Alhalalmeh, M., Al-Azzam, M., & Alshurideh, M. (2022). The effect of e-HRM on organizational Performance and talent management: A strategic evolution perspective. *International Journal of Data and Network Science, 6*(4), 1043-1048.

Shamout, M., Elayan, M., Rawashdeh, A., Kurdi, B., & Alshurideh, M. (2022). E-HRM practices and sustainable competitive advantage from HR practitioner's perspective: A mediated moderation analysis. *International Journal of Data and Network Science, 6*(1), 165-178.

Shrivastava, G., Kataria, N., Chabani, Z., Tongkachok, K., & Salameh, A. A. (2022). Role of E-HRM practices on business effectiveness in the digital era-An empirical study. *Academy of Entrepreneurship Journal, 28*, 1-9.

Susananto, P. H., Arief, M., Usman, B., & Tiarapuspa, T. (2023). Employee performance model based on e-HRM: employee green behaviour as A performance indicator in the coal mining company. *Journal of Social Science, 4*(1), 16-29.

Sylvester, E. O., Bamidele, A. D., & Oluyemi, O. S. (2015). Implementing e-HRM system in developing countries: Challenges and prospects. *International Journal of Applied Information Systems, 9*(8), 38-41.

Umar, T. R., Yammama, B. A., & Shaibu, R. O. (2020). The implications of adopting and implementing electronic human resource management practices on job performance. *Journal of Human Resource Management, 9*(1), 96-108.