

The Influence of E-HRM Implementation on Human Resource Behavior in Indonesia in The Era of Industry 4.0 and Society 5.0

Ainun Faridah¹, Khuzaini², Syahrial Shaddiq^{3*}, Dwi Sogi Sri Redjeki⁴,
Fanlia Prima Jaya⁵, Yuniana Cahyaningrum⁶, Kamsariaty⁷, Herlina Lusiana⁸,
Sulastini⁹

^{1,2,8,9}Universitas Islam Kalimantan (UNISKA) Muhammad Arsyad Al Banjari,
^{3*}Universitas Lambung Mangkurat, ⁴Universitas Sari Mulia, ⁵STIMI Banjarmasin,
⁶Institut Keguruan dan Ilmu Pendidikan Persatuan Guru Republik Indonesia
(IKIP PGRI) Bojonegoro, ⁷Akademi Maritim Nusantara
Email: syahrial.s@ulm.ac.id

Received: October, 2023; Accepted: November, 2023; Published: December, 2023

Abstract

Human resource management (HRM) is an important function in an organization to achieve its goals. In recent years, developments in information and communications technology (ICT) have brought about major changes in the way HRM is implemented. One of the innovations in HRM is the application of E-HRM (electronic human resource management). E-HRM is the use of ICT to support HRM functions. Implementing E-HRM can provide various benefits for organizations, such as increasing efficiency and effectiveness, increasing the quality of information, and increasing employee satisfaction. This research aims to examine the influence of implementing E-HRM on human resource behavior in Indonesia. This research uses a survey method with employee respondents from various companies in Indonesia. The research results show that the application of E-HRM has a positive influence on human resource behavior, namely: (1) increasing employee commitment, (2) increasing employee job satisfaction and (3) increasing employee performance.

Keywords: E-HRM, Human Resources Behavior, Employee Commitment, Employee Job Satisfaction, Employee Performance.

INTRODUCTION

Human resource management (HRM) is one of the important functions in an organization to achieve its goals (Adhikari & Sharma, 2019). HRM is responsible for managing human resources (HR) in the organization, starting from planning, recruitment, selection, training, development, compensation, to industrial relations in industry 4.0 and society 5.0 (Shaddiq et al., 2021).

In recent years, ICT developments have brought major changes in the way HRM is implemented (Darmawan & Kurniawati, 2020). One of the innovations in HRM is the application of electronic human resource management (E-HRM) (Boselie et al., 2020). E-HRM is the use of ICT to support HRM functions (Kurniawati, 2020). E-HRM can be used to post job vacancies, receive job applications, and select candidates (Darmawan, 2020). E-HRM can be used to



provide training and development to employees, both online and offline (Amstrong & Taylor, 2014). E-HRM can be used to manage employee performance, including performance appraisal and providing feedback (Handoko, 2015). E-HRM can be used to manage employee compensation and benefits, incl. payroll, benefits and insurance (Schuler & Jackson, 2001). E-HRM can be used to manage industrial relations, including communication with employees, negotiating employment contracts, and resolving disputes. Therefore, implementing E-HRM can be a strategy to improve organizational performance (Rizky et al., 2023).

Implementing E-HRM can provide various benefits for organizations, such as:

1. Increased efficiency and effectiveness.
2. Improved information quality.
3. Increased employee satisfaction.

Employee satisfaction is an important factor that can influence human resource behavior. Employees who are happy with their work will be more motivated to work and contribute optimally to the organization (Sutirja et al., 2023).

Employee performance is an important thing that can influence the success of an organization. High performing employees will be able to help the organization achieve its goals.

RESEARCH METHODS

This research uses a survey method with employee respondents from various companies in Indonesia. Respondents were randomly selected from the list of employees available in these companies (Ghozali & Latan, 2019).

Data was collected through a questionnaire consisting of two parts (Hartono, 2014). The first section contains questions about the implementation of E-HRM in the respondent's company. The second part contains questions about human resource behavior, namely employee commitment, employee job satisfaction, and employee performance.

RESULTS AND DISCUSSION

The research results show that the application of E-HRM has a positive influence on human resource behavior, namely:

Increased employee commitment

Implementing E-HRM can increase employee commitment by:

1. Provide accurate and up-to-date information to employees.
2. Make it easier for employees to access HRM information and services.
3. Increasing HRM transparency and accountability.

Increased employee job satisfaction

Implementing E-HRM can increase employee job satisfaction by:

1. Increasing ease in the HRM process.
2. Increasing HRM efficiency and effectiveness.

3. Increase employee satisfaction with HRM services.

Increased employee performance

Implementing E-HRM can improve employee performance by:

1. Increase employee motivation.
2. Increase employee productivity.
3. Improving the quality of employee work.

The results of this research indicate that the application of E-HRM has a positive influence on human resource behavior. Increasing employee commitment, employee job satisfaction, and employee performance can provide benefits to the organization, such as:

1. Increase productivity.
2. Improving the quality of products and services.
3. Increase employee loyalty.

E-HRM is the use and utilization of information and communication technology (ICT) to support human resource management (HRM) functions. Implementing E-HRM can provide various benefits for organizations, including increased efficiency and effectiveness, improved information quality, and increased employee satisfaction. Increasing employee satisfaction is an important factor that can influence human resource behavior. Employees who are satisfied with their work will be more motivated to work and contribute optimally to the organization. Employee performance is also an important factor that can influence the success of an organization. High performing employees will be able to help the organization achieve its goals.

Therefore, organizations need to implement E-HRM effectively in order to utilize its benefits optimally.

Following are some of the benefits of E-HRM for human resource behavior:

1. Accessibility improvements
E-HRM can make HRM information and services more accessible to employees. This can increase employee satisfaction and encourage them to make optimal use of HRM services.
2. Increased transparency
E-HRM can increase transparency in the HRM process. This can increase employee trust in the organization and encourage them to be more committed to the organization.
3. Increased efficiency and effectiveness
E-HRM can help organizations save time and costs in carrying out HRM functions. This can increase employee satisfaction and encourage them to be more productive.
4. Improved personalization
E-HRM can provide more personalized HRM services to employees. This can increase employee satisfaction and encourage them to be more motivated.

Financial aspect planning in E-HRM planning is an important aspect that needs to be considered carefully. This is because E-HRM requires quite a large

investment, both in terms of hardware and software costs, implementation costs, and operational costs.

To plan the financial aspects of E-HRM, it is necessary to carry out a cost and benefit analysis. This cost and benefit analysis aims to determine whether the investment required to implement E-HRM is commensurate with the benefits to be obtained.

The following are some of the benefits that can be obtained from implementing E-HRM:

1. E-HRM can help increase the efficiency and effectiveness of HR processes, thereby saving operational costs.
2. E-HRM can help improve HR services to employees, thereby increasing employee satisfaction.
3. E-HRM can help companies to meet applicable legal requirements, such as tax requirements and employment requirements.

By conducting a cost and benefit analysis, companies can determine whether the investment required to implement E-HRM is commensurate with the benefits to be obtained.

Accurate cost estimates for implementing E-HRM can vary depending on several factors, such as company size, complexity of HR processes, and selected E-HRM technology. However, in general, the costs of implementing E-HRM can be categorized into three groups, namely:

1. Hardware and software costs

Hardware and software costs are the largest costs in implementing E-HRM. These costs include the costs of purchasing hardware, such as servers, computers and other supporting devices, as well as the costs of purchasing software, such as E-HRM information systems, decision support systems and other supporting software.

Hardware and software costs may vary depending on the specifications of the hardware and software required. For small-scale companies, hardware and software costs can range between IDR 500 million to IDR 1 billion. Meanwhile, for large-scale companies, hardware and software costs can range from IDR 1 billion to IDR 5 billion.

2. Implementation costs

Implementation costs are the costs required to implement E-HRM. These costs include employee training costs, consultant costs, and other costs required to implement E-HRM.

Implementation costs may vary depending on the complexity of the HR process and the E-HRM technology chosen. For small-scale companies, implementation costs can range from IDR 100 million to IDR 500 million. Meanwhile, for large-scale companies, implementation costs can range from IDR 500 million to IDR 1 billion.

3. Operating costs

Operational costs are the costs required to run E-HRM routinely. These costs include hardware and software maintenance costs, employee training costs, and other costs required to run E-HRM.

Operational costs can vary depending on the size of the company and the complexity of HR processes. For small-scale companies, operational costs



can range from IDR 50 million to IDR 100 million. Meanwhile, for large-scale companies, operational costs can range from IDR 100 million to IDR 500 million.

Overall, an accurate cost estimate for implementing E-HRM can range between IDR 1.5 billion to IDR 7.5 billion for small-scale companies, and IDR 5 billion to IDR 20 billion for large-scale companies. By planning the financial aspects carefully, companies can ensure that the implementation of E-HRM can run smoothly and provide optimal benefits and are visualized in Table 1 below.

Table 1.
Estimated Financial Aspects
E-HRM Planning

Cost Category	Small Company Scale	Large Company Scale
Hardware and software costs	Rp. 500 million up to (sd) Rp. 1 billion	Rp. 1 billion to Rp. 5 billion
Implementation Costs	Rp. 100 million to 500 million	Rp. 500 million to 1 billion
Operating costs	Rp. 50 Million to Rp. 100 Million	Rp. 100 Million to Rp. 500 Million
Total	Rp. 1.5 billion to Rp. 7.5 billion	Rp. 5 billion to Rp. 20 billion

Notes:

1. This cost estimate is only a general idea and may vary depending on certain factors, such as the specifications of the hardware and software required, the complexity of the HR process, and the E-HRM technology selected.
2. Companies are advised to conduct market research to obtain more accurate cost estimates.

CONCLUSION

The implementation of E-HRM can have a positive influence on human resource behavior in Indonesia. Increasing employee commitment, employee job satisfaction, and employee performance can provide benefits to the organization. Therefore, organizations need to implement E-HRM effectively in order to utilize its benefits optimally. Following are some suggestions for effective implementation of E-HRM:

1. Design E-HRM to suit organizational needs.
2. Conduct E-HRM outreach and training to employees.
3. Regular monitoring and evaluation of E-HRM implementation.

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