

# Implementation of E-HRM (Electronic Human Resource Management) with Zoho Application: A Case Study

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## Abstrak

*Electronic Human Resource Management (e-HRM) adalah sebuah sistem informasi yang menangani permasalahan-permasalahan yang berkenaan dengan pengelolaan sumber daya manusia pada sebuah organisasi (perusahaan). Permasalahan yang diangkat dalam penelitian ini adalah keterbatasan perusahaan dalam manajemen Sumber Daya Manusia (SDM) yang ada, dengan usulan solusi berupa sistem informasi manajemen Sumber Daya Manusia yang terintegrasi. Dalam penerapan sistem e-HRM ini menggunakan tools dari pihak ketiga yaitu Zoho, Zoho merupakan platform yang memungkinkan HRD/Personalia melakukan manajemen sumber daya manusia dimulai dengan proses rekrutmen atau outsourcing dan dilanjutkan dengan proses pengelolaan data sumber daya manusia yang ada pada perusahaan. Dari penelitian yg telah dilakukan, diperoleh hasil bahwa penggunaan modul-modul yang terdapat pada Zoho dapat membantu perusahaan sebesar 83,22% dalam melakukan manajemen karyawan.*

**Kata-kata kunci:** e-HRM, HRD, Rekrutmen, Sumber Daya Manusia (SDM), Zoho

## Abstract

Electronic Human Resource Management (e-HRM) is an information system that handles problems related to human resource management in an organization (company). The problem raised in this research is the company's limitations in the management of existing Human Resources (HR), with a proposed solution in the form of an integrated Human Resource management information system. In implementing this e-HRM system using tools from a third party, namely Zoho, Zoho is a platform that allows HRD / Personnel to carry out human resource management starting with the recruitment or outsourcing process and continuing with the process of managing existing human resource data in the company. From the research that has been done, the results that the use of modules contained in Zoho can help companies company by 83.22% in conducting employee management.

**Keywords:** e-HRM, HRD, Recruitment, *Sumber Daya Manusia (SDM)*, Zoho

## 1. Introduction

Developments in technologies nowadays have brought new changes to information systems. This system change can also be applied by companies to achieve the effectiveness and efficiency of business processes. [1]. This technological development must be utilized so that companies can have more value than other companies so as to provide more competitive value for companies that implement information systems as assistants in company decision making. Therefore, it is very necessary to have an information system that facilitates company performance and supports.

The company's need for data is very large, but human error or technical error often occurs when processing the data. [2]. Based on the explanation from [2] They emphasized that errors that may occur during data processing include problems in combining employee report data and searching employee data manually. In connection with these problems, a data management process is needed to minimize errors. With this data management, the data processing process

can be optimized by presenting information more quickly and accurately so as to provide space for companies to make the right decisions.

Human resources in the company must be organized in such a way that the company can compete and have more value in the market. Responding to current technological developments with the help of the internet is a way that companies must take to increase competition in a global market that tends to utilize information systems. Integrated human resource management is usually known as e-HRM (electronic Human Resource Management). E-HRM can be defined as a way to implement HRM strategies, policies, and practices in the organization consciously and supported by the full direction of web-based technology. [2]. In the same theory, [3] explains that E-HRM is used to manage human resource administration with internet or network support. It can be said that E-HRM is a way to implement human resource strategies through the use of the internet or other types of technology.

The current human resource management system still uses a recording system using a computer system integrated with Microsoft Office applications in processing employee data which requires employees and prospective employees to use a lot of paper, resulting in a waste of hard copies. Therefore, after the data is stored manually in the archive section, it is not uncommon for the data needed to be very difficult to find.

The employee recruitment process by HRD in companies tends to experience difficulties in selecting and searching for the required applicant data. This is because the employee recruitment data collection process still relies on hard copy documents in the recruitment process so that the possibility of unused documents is not found [2]. After that, in the process of providing information to employees and prospective employees who still use bulletin boards, it is likely that some people will not receive announcements so that digital-based announcements are needed where both employees and prospective employees do not need to go to the office to get announcements.

Zoho is a tool that can support recruitment and employee data collection in an easy way. Zoho is an open-source management system or software, which is very easy to use and integrate. The form of the Zoho system itself is web-based where this software has many advantages such as having and being supported by many communities, complete and integrated modules, easy installation, and also affordable costs. Because this software is open source and has the ability to manage various aspects of the business world needed by companies. Therefore, this software has more offerings from customer relationship management (CRM), human resource management (HRM), and many other modules that can be integrated into the company to be developed. In addition, Zoho also has the support of many dynamic communities abroad, is very flexible and adaptable to the business needs of the company.

Some previous relevant studies have been conducted by several researchers. [4] has conducted research related to the development of HRM system integration with the ERP approach. The results showed that the HRM system design has been successfully implemented in the Odoo application where the system helps manage human resources that are still carried out conventionally. The application can improve security aspects because it has user access and the accuracy of the data obtained with real time data transactions in the human resource management business process. Other research conducted by [5] about the development of e-HRM through a case study at BPRS Harta Insan Karimah Head Office. The study found that the e-HRM system was designed and built from scratch so that it became a complete system used by the company as an integrated human resource management information system (HRM).

Responding to the many companies that employ work from home as an option to create an effective work process where many companies abroad have implemented it and proven to be more effective in terms of cost and time. With the application of e-HRM (Electronic Human Resource Management) integrated with the help of a website-based information system, namely Zoho, it is expected to be a solution for companies in managing human resources both at the recruitment stage to the employee management stage. Therefore, this research aims to determine the feasibility of the e-HRM (electronic Human Resource Management) system in the company in the recruitment process and employee data collection using the Zoho application. The results of this study have implications for providing effective techniques for companies in recruiting or collecting employee data with optimal methods.

## **2. Research Method**

This research uses quantitative research through a case study design. Quantitative research is research based on assumptions, then the variables are determined, then analyzed using valid research methods, especially in quantitative research. [6]. Case studies can be defined as studies that describe real-life phenomena through description [7]. The subjects in this study were 44 respondents who were employees at BPR Saraswati Ekabumi. The subjects were selected based on the research objectives.

The instruments used in this study were observation sheets and questionnaires. Data collection was done through observation and documentation. Observation was carried out with the supervision of 2 important people at BPR Saraswati Ekabumi to find out the initial conditions in the company. On the other hand, data collection was done by filling out a questionnaire. This questionnaire was used to analyze the feasibility of the Zoho application used by the company selected in this study. The questionnaire is an efficient data collection technique if the researcher knows exactly the variables to be measured and knows what to expect from the respondents. The questionnaire involves 12 questions used to analyze the feasibility of the Zoho system implemented, starting from the recruitment process using Zoho Recruit to the employee data collection process using Zoho People. The list of questions that will be used to distribute the questionnaire where the assessment is carried out using a range of values Strongly disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly agree (5) which will determine the feasibility of the system implemented at PT BPR Saraswati Ekabumi which will then be distributed via Google Form and the filling is carried out by employees based on the user guide that has been provided. The questionnaire is distributed through Google Form.

Before distributing the questionnaire, researchers need to test the questionnaire to assess whether each item in the questionnaire has met the research needs and the ultimate goal of implementing the system. The validation of the questionnaire was carried out with the help of experts. Questions at the questionnaire test stage were then corrected and analyzed per item so that they could be accepted by all respondents considering that not all respondents had the same educational background. In addition, improvements to the questionnaire were also made based on consultation with the supervisor regarding the questions needed to meet the research needs.

Research procedures include identifying problems in business processes, limiting research problems, research objectives, research benefits, interview methods, observation methods, system implementation, identifying problems in the implemented system, administering system application questionnaires, calculating questionnaire results, analyzing questionnaire results, and providing suggestions and improvements. After the data is collected, the data is analyzed through the help of IBM SPSS Statistics 23. The usability category can be seen in the detailed explanation below:

- Description:
- 0% - 20% = Very Poor
  - 21% - 40% = Less
  - 41% - 60% = Fair
  - 61% - 80% = Good
  - 81% - 100% = Very good

In addition to determining the percentage of scores obtained, the results of the data collected were also processed using IBM SPSS Statistics 23 to calculate the frequency and percentage of the average score on the respondents' questionnaire results. The frequency and percentage calculations of the questionnaire data results can be displayed by referring to Table 1:

**Table 1.** Data Calculation Categories

Number	Category	Interval	Interpretation	f	(%)
1	$X \geq Mi + 1.Sbi$	$X \geq Mi + 1.Sbi$	Very satisfied		
2	$Mi + 1.Sbi > X \geq Mi$	$Mi + 1.Sbi > X \geq Mi$	Satisfied		
3	$Mi > X \geq Mi - 1.Sbi$	$Mi > X \geq Mi - 1.Sbi$	Quite Satisfied		
4	$X < Mi - 1.Sbi$	$X < Mi - 1.Sbi$	Not Satisfied		

### **3. Literature Study**

#### **3.1 Definition of E-HRM**

E-HRM is a web-based tool that automatically supports human resource processes. E-HRM is a way to implement HR strategies. The rules and practices of companies that consciously and fully support the use of web-based [8]. The role of HRM in organizations is to showcase employee influence, flow, rewards and work systems based on bureaucratic policies found in the stable environment of the company.

The conceptual differences between e-HRM and HRIS (Human Resource Information System) according to [9] defines e-HRM as the planning, implementation, and application of information technology through a network that supports at least two individuals or a group of people in sharing information related to HR activities. In essence, e-HRM here is an information technology application implemented within a company to enable employees to connect and work on HR activities.

HRIS is defined by [10] as a system used to obtain, store, and distribute information about human resources in a company. HRIS not only includes hardware and software, but also includes people, policies, procedures, and data. In essence, HRIS here emphasizes more on the systems and processes used by human resource staff as HRIS users while the electronic function known as e-HRM proposes for all employees in the company. [10] stated that e-HRM serves HR functions in a focused manner (for example, e-recruitment and e-training). Therefore, it can be concluded that E-HRM has a definition as a web-based system that functions to facilitate the management of human resources.

#### **3.2 Zoho**

Zoho is an open-source management system or software, which is very easy to use and integrate. The form of this Zoho system itself is website-based where this software has many advantages such as having and being supported by many communities, complete and integrated modules, easy installation, and also affordable costs.

#### **3.3 Human Resource Development**

Human resources are employees who are ready, able and alert in achieving the objectives of organizational goals. As stated that the main dimension of the resource side is its contribution to the organization, while the main human dimension is the treatment of contributions to it which in turn will determine the quality and capability of its life.

Human Resource Management is the recognition of the importance of the organization's workforce as a very important human resource in contributing to organizational goals, and uses several functions and activities to ensure that human resources are used effectively and fairly for the benefit of individuals, organizations, and society.

### **4. Result and Discussion**

BPR Saraswati Ekabumi was established based on notarial deed of Amir Sjarifudin no. 39 dated October 31, 1988 and started doing business on January 4, 1991 with the Principal Approval of the Minister of Finance no. S-731/MK.13/1989 dated June 14, 1989 and business license no. KEP.529/KM.13/1990 dated October 26, 1990. The office of BPR SARASWATI is located at Jl. By Pass Ngurah Rai 18X Simpang Siur - Kuta with telephone number 756206, 763295 and fax number. 756206.

User Acceptance Test is conducted to test the feasibility of the Zoho system implemented both from the recruitment process using Zoho Recruit to the employee data collection process using Zoho People. After collecting data by distributing questionnaires directly to 44 respondents, data results were obtained regarding the effectiveness of the implementation of the e-HRM (Electronic Human Resource Management) system in the company in the recruitment process and employee data collection using the Zoho application. The results of statistical data processing on 44 respondents can be seen in Table 2.

**Table 2.** Results of Questionnaire Research

Question	Respondent Answer				
	Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)	Strongly Disagree (SD)
Q1	20	20	4	0	0
Q2	19	20	5	0	0
Q3	17	19	7	0	0
Q4	21	15	3	5	0
Q5	14	20	7	3	0
Q6	18	14	9	3	0
Q7	25	19	0	0	0
Q8	10	24	8	2	0
Q9	15	19	6	4	0
Q10	15	18	8	4	0
Q11	19	22	5	0	0
Q12	11	16	12	5	0
Total	204	226	73	27	0

Based on the acquisition of the data above, the results of the questionnaire answers can be averaged according to the score on each answer given by the respondent. So, the average score of the questionnaire can be seen as follows:

Total score of the respondents who answered SA	= 204 x 5	= 1.020
Total score of the respondents who answered A	= 226 x 4	= 904
Total score of the respondents who answered N	= 73 x 3	= 219
Total score of the respondents who answered D	= 27 x 2	= 54
Total score of the respondents who answered SD	= 0 x 1	= 0
Total		= 2.197

In addition, the highest and lowest values can also be calculated as below:

Highest score = 44 x 12 x 5 = 2.640 (if all answered Strongly Agree)

Lowest Score = 44 x 12 x 1 = 528 (if all answered Strongly Disagree)

Based on the highest value reference, it can be calculated the percentage of feasibility of implementing E-HRM in recruiting and registering employees using the Zoho application with the following formula [11]:

$$\begin{aligned} \text{Percentage} &: \frac{\text{Total} \times 100 \%}{\text{Highest Score}} \\ &: \frac{2197 \times 100\%}{2.640} \\ &: \mathbf{83, 22\%} \end{aligned}$$

Thus, it can be concluded that the usability percentage of the E-HRM system in recruiting and collecting employee data through the Zoho application is 83.22%. The results of this percentage can be seen in Figure 1:

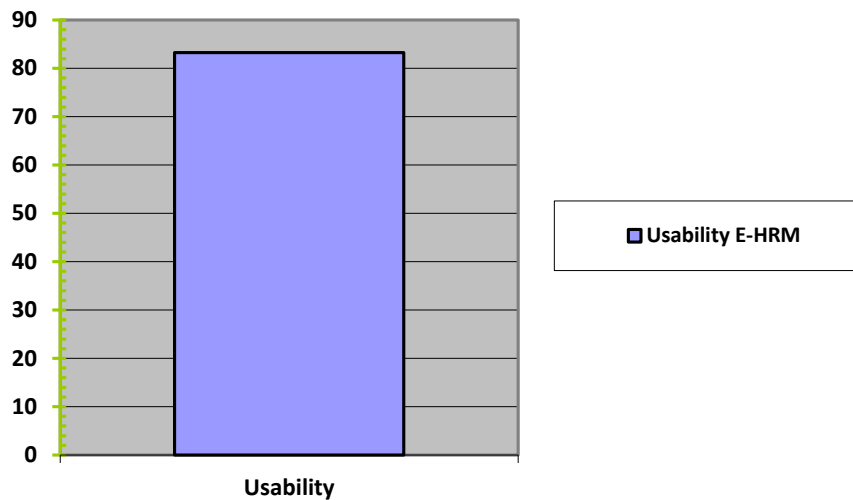


Figure 1. Feasibility of Zoho App as an E-HRM System

Based on Table 2, it can be explained that of the 44 respondents there were 93.2% (41 people) with  $X \geq 44$  or the ideal average above score 44 in the very satisfied category while there were 6.8% (3 people) with an ideal average of  $44 > X \geq 36$  with the satisfied category. Thus it can be said that employees are very satisfied with the application of the E-HRM system in data collection and employee recruitment through the Zoho application. This also proves that the application of this system is very feasible to be implemented in a company to make it easier for HRD to recruit and record employees.

Zoho applications are divided into Zoho Recruit and Zoho People. Both have different functions for human resource recruitment. Zoho Recruit allows users to recruit for positions needed in the company very easily, where Zoho helps companies in the existing recruitment management process making it easier for companies to find candidates and sort out the best candidates. Zoho Recruit allows users to recruit for positions needed in the company very easily, where Zoho helps companies in the existing recruitment management process making it easier for companies to find candidates and sort out the best candidates. Meanwhile, Zoho People is used as employee management in companies where the available features can help companies in terms of efficiency and effectiveness of the work process of the human resources department.

These results are also in line with research conducted by [2]. In addition, the results are also in accordance with the research from the researcher of the E-HRM system using Rapid Application Development which states that the use of the E-HRM system can run well and can facilitate the company in carrying out the employee management process. In addition, these results are also in accordance with research from [12] who stated that the E-HRM system can overcome problems that arise during the use of manual systems, such as data collection of labor files and company data. Based on the questionnaires given, it can be concluded that this system is able to help PT Sagitarus Anggada overcome existing problems.

Based on some parallel research results, it can be concluded that the E-HRM system is very feasible to be implemented to facilitate companies in recruiting and collecting employee data at PT. BPR Saraswati Ekabumi. The implication of the research is that the Zoho tool has proven to be an important tool that can assist companies in recruiting and collecting employee data. These results can help companies to recruit and collect employee data effectively. However, this research is limited in terms of samples and research problems.

## 5. Conclusion

Based on the results and discussion above, it can be concluded that Zoho tools as an E-HRM system is very feasible to be applied to facilitate companies in recruiting and collecting employee data at PT BPR Saraswati Ekabumi with the percentage of 83.22%. This is because the Zoho application consists of two main parts, namely Zoho Recruit and Zoho People. Both parts help the company to recruit and make it easier for the human resources department to work. The results of this study can be a supporting document for companies in implementing human resource management. It is recommended for future researchers to conduct more complex research related to the use of Zoho applications.

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