# User Satisfaction on Human Resources Management Information System: Implementation in Enforcement Organization

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#### Abstract

Information and Communications Technology (ICT) involves unlimited technology developments and plays important role in measuring the success of an organization. The efficiency of management in an organization depends on the performance of Human Resources Management (HRM). Human Resource Management Information System (HRMIS) is one of the Malaysian government flagships that occupy government employees to manage human resources (HR). However, the findings from the elicitation of literature and existing experience from the researcher found that the usefulness of HRMIS particularly in terms of ease of use, time-saving, cost-saving, and system quality is still ambiguous which affects user satisfaction. Therefore, the main objective of this study is to determine the relationship between all of the factors and user satisfaction in HRMIS. The study has been carried out at one of the government organizations which involves a total number of 191 respondents out of 380 by utilizing a stratified random sampling technique. The results found that time-saving, cost-saving, and system quality are the most significant factors that affect user satisfaction in using the HRMIS. Thus, it is hoped that the findings of this study should be able to provide awareness on the importance of using HRMIS among public servants in Malaysia.

**Keywords:** Information and Communication Technology (ICT), Human-Computer Interaction (HCI), Management Information System (MIS), Human Resource (HR), User Satisfaction



# 1. Introduction

Information and Communications Technology (ICT) involves unlimited technological developments in the 21st century. This includes the usage of a Management Information System (MIS) which plays important role in measuring the success of an organization. The success of an organization depends on the performance of Human Resources Management (HRM) (Richard et al., 2021). HRM technology-based is widely used because of its low cost and data-centricity in the organization. It helps the organization to make decisions and implement processes that bring efficiency, in addition to saving the organization time and cost (Ibrahim, 2016).

Human Resource Management Information System (HRMIS) is one of the Malaysian government flagships that occupy government employees to manage human resource (HR) functions appropriately throughout the system. HRMIS's objective is to enable a skilled management resource through the modernization of technology-based for a better and more conducive working environment. The implementation of the HRMIS system evolved in line with the Electronic Government (e-Government) agenda, where the project is secured by the Public Service Department (PSD) started in 1999. HRMIS is known as the Malaysian government's effort to ensure that HR management in the public service should be able to produce skilled, trained, and motivated workers. It is a systematic procedure for collecting, storing, maintaining, and recovering data required by an organization about their HR, personnel activities, and organizational characteristics (Wong, 2015). To increase the effectiveness of HRM, organizations are becoming more and more dependent on HRMIS (Singh, 2014). HRMIS's level of satisfaction also depends on how the effectiveness of the system itself.

The series of technological advancements within the organization environment either public or private sector nowadays have received a new chapter when the core systems platform on the HR department is well developed and needs to be adapted by lots of employees within. The reason is the use of technology reduced the amount of time the HR staff has to spend on operational activities, thus freeing up their time to spend on strategic activities to gain a competitive advantage (Sharma, 2023). However, there is no perfect computerized system in this world. Each system has its merits and demerits. The purpose and objectives of the systems are predefined but sometimes the results are a mismatch. This happens either because the organization is not able to cope with the system or the software is not fulfilling the needs of the organization. The challenges to adapting to a system such as HRMIS in Malaysia were real as not everyone tries to learn the process of the system immediately. According to recent studies, it was discovered that the Human Resource Department (HRD) that not fully implemented HRMIS resulting in the integration of HR functions among the divisions and units of HRMD becoming complicated and conflict because of that HR functions performed manually, individually, and repetitively (Shahibi, Saidin, & Izhar, 2016).

Even though studies on user satisfaction related to information systems are plentiful, very few have investigated end-user satisfaction with HRMIS, especially in the context of Malaysia (Ibrahim, 2016; Shahibi et al., 2016). The Malaysian government-initiated HRMIS to improve



its HR management processes and functions in an integrated environment for effective human capital planning and management. However, its implementation has never been without problems. According to Ibrahim (2016), the failure of HRMIS in early implementation has come from the system itself. Besides, employees that are revealing a decrease in their satisfaction with the use of HRMIS are mostly related to the challenges in using that particular system. Recent studies found that there were five core challenges that employees faced in adapting with the information system which are unsteady financial capacity to acquire, update and maintain the system, inadequate ICT and expertise among the HRM workforce, inadequate coordination of government machinery in the performance of their statutory responsibilities, instability of Internet connectivity, and inadequate top management support (Matimbwa & Masue, 2019). Moreover, some employees resist change and were hard to satisfy with the newly implemented system.

Matimbwa et al. (2019) also stated that some of the current information systems burden the employees with the use of major interfaces such as preparation and development, efficiency or company connectivity, workers' ability to access information from remote locations on a short-term basis, and restricted environment within a system may lead to lower the productivity of employees managing and using the system. Recent studies on user satisfaction particularly on the HRMIS application found that a lack of ICT facilities and infrastructure and inadequate helpdesk function can lead to dissatisfaction among employees using the HRMIS (Zahari et al., 2018). It discovered that employees need a clear guide to adapt to the current process while using the HRMIS for the sake to ease their burden while performing their daily tasks. Thus, in the context of this study, the HRMIS platform has been installed at one of the organizations in Terengganu, Malaysia since 2014 but the usage of the system is still ambiguous, particularly in terms of ease of use, time-saving, cost-saving, and system quality which affects user satisfaction. Therefore, the main objective of this study is to determine the relationship between all of the factors and user satisfaction in HRMIS. The next section provides details justification related to the works of literature prior to carrying out a more systematic study.

# 2. Literature Review

This section provides a comprehensive explanation related to the relationship between ease of use, cost-saving, time-saving, system quality, and HRMIS satisfaction.

# 2.1 The Relationship Between Ease of Use and HRMIS Satisfaction

Perceived ease of use within the information system (IS) fields is explained as the individual's belief that the utilization of the computer system with no effort demands. Perceive usefulness is the high dependent on perceiving ease since the IS is more beneficial and useful if it is found to be easier to manage (Yahya et al., 2012). This is also supported by Ibrahim et al. (2018), who indicate that the characteristics of the individual user are among the determinants of IS success. They further suggest that the organization should give detailed attention to their employee by ensuring proficiency in computer skills and upgrading the attributes of the system characteristics. When the system is easy to be understood, therefore the user can improve the understanding in operating and monitoring the current system including work planning and decision making which later contribute to the IS quality improvement and the overall



organizational success.

Apart from that, the ease of use of the system and confirmation are highly related and depend on how the users perceived it. These results are also perceived to be parallel and consistent within the fields of e-HRM. The user tends to refuse in using a system that considers being complex rather than uses a system that is easy to understand, operate, and monitor (Yusliza et al., 2020). A positive first impression in using IS is important in creating a long-term relationship with its user. In reflection of the context of this study, if the user found the HRMIS easy to use through their first experience, the user has more confidence and comfortable to use and take advantage of it over again. However, if they found that the manual system is more reliable and effective, thus it can be concluded that HRMIS is considered to be complex, complicated, and unmanageable. These further increase the user complaints from their dissatisfaction with the system.

# 2.2 The Relationship Between Cost-Saving and HRMIS Satisfaction

Suharti and Sulistyo (2018) reported that the utilization of HRMIS enables the organization to reduce HR costs and further decrease the huge the organization's human resource costs. Most of the previous studies also reveal that cost savings and user satisfaction are positively related since the usage of HRMIS which proven to generate such great cost impact on the HR process and activities such as instance recruiting and training (Said et al., 2014).

Apart from that, Kumar and Parumasur (2013) in their study expressed that HRMIS requires a large investment by the organization. However, a lot of cost-benefits enjoy in return. This also considers a long-term investment. Among the benefit include less paper usage, less space utilization, possessing new accurate data, and a faster online system. Although the cost investment can be considered huge at the early stage and require a certain stipulated time to accomplish the return, however, one company can save up to \$1.2 million for the mailing and printing costs in a year. It is not just a cost since the employee is also observed to be more productive and enjoyable.

Generally, there are many enjoyable advantages when applying HRMIS in the organization. The organization's ROI (return on investment) can be much valuable and beneficial for a long-term organization's success even with too much cost experience at the beginning. When this happens, the user is more satisfied while enjoying the benefit; the HR cost is also reduced, for example in recruitment and labor costs. This implies that if the user is aware of cost savings for the organization, they should fully utilize the HRMIS in their daily task.

# 2.3 The Relationship Between Time-Saving and HRMIS Satisfaction

Wong (2015) in his study defines time savings in terms of conceptual and operational. Time-saving characterize as the successive course of action all things considered or the interim between two occasions in such a grouping. Time-saving includes the time spent in HR capacities, for example, selecting, preparing, choices making, treatment of information, and administrative work handling by the employee.

Besides, Maditheti and Gomes (2017) claimed that time and cost savings, the direction of the



information, and the process of HR contribute to the high level of user satisfaction. A total of 101 managers from South Africa Municipality agreed and hold a positive belief that time management is significantly influencing the usage of HRMIS. The results from their study indicate that 14.9% of the HRMIS user strongly agreed, whereas 48.5% agreed with the relationship between both independent and dependent variables, time management. In contrast, a total of 13.9% disagreed and 14.9% strongly disagreed that HRMIS promotes a high-speed working environment, and also enables them to save more time in dealing with the task and paperwork (Kumar et al., 2013).

The government staff in Malaysia especially those involved with the enforcement and emergency department or on-call tasks have to plan time used effectively. Clear time management is really important to guide staff to complete all the tasks within the time given or less than that with a less amount of effort. This is because usually, a law enforcement department is demanding more time saving especially in applying the HRMIS in their routine task. The user could be more satisfied as the system helps them to record, manage, and store every information and document within a one-stop center system easily and effectively. In contrast, the manual method of managing all the records, information, and document seems to be perceived as time-wasting which require several complicated processes with more time spent.

# 2.4 The Relationship Between System Quality and HRMIS Satisfaction

System quality can be defined as the data parts and software characterized by the information system function. Generally, perceived ease of use and service quality is always mixed up with the concept of system quality. Therefore, the evaluation of the system quality is mostly measured by its ease of use perceptiveness, purpose, and consistency, the quality of the data, convenience, and the mixture pattern. Besides, it is also believed that only IS users are able to evaluate the system quality (Michel & Cocula, 2017). It is also reported that certain attributes or qualities such as valuable, reliability, the quality of the information, and the flexibility of the system can be assessed by system quality. Shahibi et al. (2016) in their study illustrate ten attributes of a system quality framework which are the procedure, learning easiness, client criteria, system attraction, accuracy, flexibility, innovation, development, combination, and system modification.

The system quality's top three characteristics which are usability, competency, and trustworthiness have been examined in a Malaysian public university. The study also tends to assess the association between user satisfaction and system quality and its satisfaction impact continuously. The outcomes reveal that all the top three characteristics have a positive impact on the system quality (variance: 43.22% of the system quality) and there is also a positive significant effect between system quality and user satisfaction (variance: 57.70% of satisfaction) and the satisfaction value also positively interconnected with the system continuation (variance: 55.34% of usage intention). Therefore, it is proven that the user's satisfaction with IS is greatly influenced by its system quality (Dreheeb, Basir, & Fabil, 2016).

The study by Alshibly (2011) also supported that there is a statistically significant relationship between perceived HRMIS system quality and user satisfaction. This is because the system



enables the user to easily and readily access the system, perceived ease of use even for the first-time user.

Therefore, this study believes that the system quality of the HRMIS influences user satisfaction. In general, if the quality of the system is high, therefore the system will be operated well. This further contributes to human HR effectiveness and efficiency as a whole.

Based on the comprehensive review of each of the variables, this study come out with a conceptual framework as discussed in the next section.

# 2.5 Conceptual Framework

The proposed conceptual framework of the study illustrates in Figure 1. It is adopted and revised by Noutsa et al. (2017) and Wong (2015) framework approach. Both of the studies proposed a similar dependent variable. In this study, the relationship between both, dependent and independent variables is the primary focus. The dependent variable is HRMIS. While, all of the four independent variables which are ease of use, time-saving, cost savings, and system quality is believed to be the influence factor of the HRMIS satisfaction level among users. Hence, the next section highlights the proposed hypothesis.

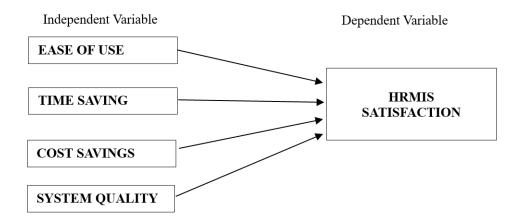


Figure 1. Conceptual framework of the study

In accordance with the comprehensive review, the relationship between both, the independent and the dependent variable evaluates and examines through the study hypotheses as listed below:

H<sub>1</sub>: There is a significant statistical relationship between the ease of use of HRMIS and user satisfaction.

H<sub>2</sub>: There is a significant statistical relationship between the time-saving of HRMIS and user satisfaction.

H<sub>3</sub>: There is a significant statistical relationship between the cost saving of HRMIS and user



satisfaction.

H<sub>4</sub>: There is a significant statistical relationship between the system quality of HRMIS and user satisfaction.

Thus, the section explains the methodology used to carry out the study.

# 3. Methodology

This section focuses on the research methodology that has been used to examine the factors that influence user satisfaction with HRMIS at one of the enforcement organizations. It discusses the research design, unit of analysis, sample size, research instruments, data collection procedures, and hypothesis reliability. This section also discusses the analysis that has been utilized to answer each of the research questions.

# 3.1 Research Design

This study gathered the data by utilizing one dependent variable which is user satisfaction and four independent variables which are ease of use, time-saving, cost-saving, and system quality.

# 3.2 Unit of Analysis

The unit of analysis for this study is HRMIS user satisfaction of staff in one of the enforcement departments in Terengganu. The study used 191 samples representing the whole 380 staff.

# 3.3 Sample Size

The sample size of this study is calculated based on Krejcie and Morgan (1970). Therefore, as tabulated in Table 1 there are 191 staff selected as respondents for this study.

No	<b>Branches/section</b>	Number of staff	Sample
1	Management	161	81
2	Crime	41	21
3	Special Branch	43	22
4	Traffic	21	10
5	Narcotic	43	22
6	Commercial	9	5
7	Logistic	36	17
8	Crime Prevention	26	13
		Total P: 380	Total <i>n</i> : 191

#### Table 1. Calculation of sample size

# 3.4 Sampling Technique

This study used a stratified random sampling technique to represent all populations.



# 3.5 Data Collection Process

A total of 191 questionnaires have been prepared through the Google Form application. The link to the questionnaire has been distributed to respondents through social media applications including WhatsApp, Facebook, and Telegram.

# 3.6 Data Collection Technique

This study consisted of two phases of a procedure in the data collection. The first phase is a pilot study and the second phase is the actual study.

# 3.6.1 Phase 1: Pilot Study

A pilot study of this research has been conducted by distributing the questionnaire to 30 experienced staff working in one of the enforcement organizations in Terengganu. The information collected from the pilot study has been utilized to verify the content and format of the questionnaire for the actual study.

#### 3.6.2 Phase 2: Actual Study

For the actual study, 191 questionnaires have been distributed to the selected respondents as discussed previously. The questionnaires were answered by respondents based on their permission and willingness basis. The number of samples exceeded the minimum sample of 103 respondents as required by probability sampling techniques. Therefore, the gathered data can proceed to analysis purposes.

# 3.7 Data Analysis Technique

Research	Measurement	Scale	Statistic
Objectives			
1. To identify the most significant	1. Which is the most significant	Interval	Multiple
factor influencing user satisfaction in	factor that influences user		Regression
HRMIS	satisfaction in HRMIS?		Analysis
2. To identify the relationship	2. Is there any relationship	Interval	Pearson
between the identified factors and	between the identified factors		Correlation
user satisfaction in HRMIS	and user satisfaction in HRMIS?		Coefficient

#### 3.8 Research Instrument

The questionnaire of this study is adapted from the previous research that focuses on a similar domain of the study. It is divided into 3 parts. Part A of the questionnaire gathers the demographic data of the respondents. The demographic question structure is based on multiple choice and range format. Part B of the questionnaire was to examine the factor that influences user satisfaction which is the ease of use, time-saving, cost-saving, and system quality. This



part is using a Likert-scale type of question to rate their preferences toward the given statements. There were five levels of response offered to respondents according to their preferences (1 = Strongly Disagree, 2 = Disagree, 3 = Mixed Feeling, 4 = Agree, 5 = Strongly Agree). The item in Part C is user satisfaction which is respondent satisfaction towards HRMIS. This part also uses the five-point Likert-scale type of response to measure the respondents. This item in this part also develops based on previous research on related factors. Table 3 summarizes the structure of the questionnaire.

Part		Items	Source
Part A	Demographic	10	Zahari et al., 2018; Shahibi et al., 2016
Part B	Ease of Use	6	Zahari et al., 2018; Mugo, 2017
	Time Saving	5	Ibrahim, 2016
	Cost Saving	5	Ambundo, 2017; Hailu, 2014
	System Quality	6	Ammarhusein, 2015
Part C	User Satisfaction	7	Zahari et al., 2018; Shahibi et al., 2016

Table 3. Structure of the questionnaire

# 3.9 Validity of Research Instrument

The instrument used in this study is a quantitative study in which data distributed to the respondent via questionnaire and data then be collected for analysis. Each variable is defined on each of the questions in the questionnaire and the respondent needs to answer all the questions which question also represent each variable in the study. The data collected is analyzed through descriptive analysis, reliability analysis, Pearson correlation, and multiple regressions.

# 4. Result and Discussion

This section discusses the result gathered from a pilot study and an actual study.

# 4.1 Pilot Study

For the reliability test, there are a total of 30 sets of the questionnaire being distributed to 30 selected respondents to make sure the set of the questionnaire is reliable to use. The data collected were tested using IBM SPSS Statistics 26 software. The result of the reliability test using 30 respondents was more than 0.6 which indicated well in all variables. Table 4 tabulated the result of the pilot study.



Variables	Number of Item	Cronbach's Alpha	
Ease of Use	6	0.862	
Time-Saving	5	0.950	
Cost Saving	5	0.948	
System Quality	6	0.962	
User Satisfaction	7	0.954	

#### Table 4. Reliability analysis of variables

The result of the reliability test for four independent variables and one dependent variable as shown in Table 4 indicated system quality independent variables recorded the highest value of Cronbach's Alpha at 0.962. Moreover, the value of Cronbach's Alpha for user satisfaction is 0.954 as the second-highest follow by 0.950 for time-saving and 0.948 for cost-saving. The lowest value of Cronbach's Alpha is 0.862 represented by Ease of Use. Therefore, all variables showed the highest reliability with a score above 0.8.

#### 4.2 Response Rate

The return rate of the questionnaire for this study is 100% as depicted in Table 5.

Item	Ν	<b>Respond Rate</b>
Total Questionnaires Distributed	191	100 %
Number of Questionnaires Collected	191	100 %
Number of Questionnaires Not Returned	0	0 %
Number of Questionnaires Unusable	0	0%
Number of Questionnaires Useable	191	100 %

Table 5. Respond rate of the distributed questionnaire

# 4.3 Demographic Profile of Respondents

This section explained the frequency analysis of respondents according to gender, age, race, marital status, job category, working experience, gross income, education level, computer literacy, and frequency of using HRMIS. According to Sekaran and Bougie 2016, frequency analysis refers to an occurrence's number of various subcategories that can be calculated. In this study, frequency analysis is used to analyze the demographic profile of the respondent. The data received and collected from 191 respondents can be referred to in Table 6.



Valid	Frequency ( <i>n</i> = 191)	Percentage (100 %)
Gender		
Male	164	85.9
Female	27	14.1
Age		
21–30 years	39	20.4
31–40 years	121	63.4
41–50 years	13	6.8
51–60 years	18	9.4
Race		
Malay	171	89.5
Chinese	1	.5
Others	19	9.9
Marital Status		
Single	30	15.7
Married	160	83.8
Divorced	1	.5
Job Category		
Civil Servant	18	9.4
Police Force	173	90.6
Working Experience		
Less than 7 years	68	35.6
8 years-14 years	79	41.4
15 years–21 years	19	9.9
More Than 22 years	25	13.1
Gross Income	-	-
Below Than RM 2999	38	19.9
RM 3000-RM 5999	142	74.3
RM 6000-RM 8999	10	5.2
More Than RM 9000	1	.5
Education Level		
PMR/SPM	141	73.8
STPM/Diploma	18	9.4
Degree	29	15.2
Master/PhD	3	1.6
Computer Literacy	-	-
Basic	36	18.8
Moderate	61	31.9
Good	75	39.3
Excellent	19	9.9
Frequency of using HRMIS		
Very Often	19	9.9
Often	96	50.3
Sometime	68	35.6
Rarely	8	4.2

# Table 6. Frequency analysis of demographic profile

Table 6 indicates the result of the frequency analysis of gender in the demographic profile of respondents. The result indicates that the majority of 191 staff who answer the question are male staff with a percentage of 85.9 % (n = 164). The rest of the respondents are female making up 14.1 % (n = 27). The huge gender differences are an insignificant factor since this study only seeks respondent satisfaction from both genders.

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Table 6 also indicates the result that was derived after the respondent was classified by the age of the group. The result indicates the highest number of respondents is from the 31–40 years old group, represented by 63.4 % (n = 121), followed by the 21–30 years old group with a percentage of 20.4 % (n = 39). There are 18 respondents which are 9.4 % of the 51–60 years old group who answer the questionnaire. Lastly, the lowest group is from 41–50 years old group represented by 6.8 % (n = 13).

Based on the analysis, the majority of respondents were represented by 89.5% (n = 171) Malay, followed by the Other Race 9.9% (n = 19) and Chinese 5% (n = 1). The highest marital status belongs to the married respondent 83.8% (n = 160), then followed by the single respondent which is 15.7% (n = 30), and only 1 respondent divorced 5% (n = 1).

Meanwhile, in terms of job category, only 2 job categories were identified which are a civil servant and police force. The result of the job category shows police force is the majority of respondents which is 90.6 % (n = 173) and followed by civil servants at 9.4% (n = 18). The result obtained from the respondents working experience in demographic profile shows that the highest frequency analysis of working experience is 41.4% with a total of 79 staff working experience around 8–14 years old length then followed by 35% with a total of 68 staff working less than 7 years length. Also, there are 25 staff with 13.1% of staff working experience for more than 22 years. The lowest result is 15–21 years of working experience belonging to 19 staff with 9.9%.

For the gross income the majority of respondents were in the income group of RM 3000-5999 around 74.3% (n = 142), followed by the respondents from the income group of below RM 2999 about 19.9% (n = 38). Moreover, 5.2% (n = 10) of the respondents were from the range of RM 6000-8999 gross income. Another 5 % (n = 1) of the respondents were from the income group ranging above RM 9000. The level of education of the respondents in this study is an important factor. Based on the analysis, it was found that 73.8% (n = 141) of the respondents have PMR/SPM, followed by 15% (n = 29) with a Degree. Besides that, 9.4% (n = 18) of the respondents hold the STPM or Diploma. Then, only 1.6% (n = 3) of respondents possess a Master's or Ph.D. qualification.

Regarding computer literacy or computer skill, it was found that 39.3% (n = 75) of respondents are good at using the computer, followed by 31.9% (n = 61) being a moderate user. Besides, 18.8% (n = 36) are basic users. The rest and the lowest in is 9.9% (n = 19) are excellent in computer literacy or computer skills. Regarding the use of HRMIS, it was found that 50.3% (n = 96) of the respondents often use HRMIS, followed by 35.6% (n = 68) of the respondents who are sometimes using HRMIS and 9.9% (n = 19) of the respondents very often use HRMIS. Lastly, only 8% (n = 8) of the respondents rarely use HRMIS.

# 4.4 Descriptive Analysis

Descriptive Analysis consists of the elements of maximum, minimum, mean, and standard deviation which provide descriptive information about the data. For this study, the descriptive analysis provides the result of mean and standard deviation (Table 7).



Variables	Ν	Mean	Std. Deviation	
Ease of Use	191	22.2251	4.06999	
Time-Saving	191	18.5183	4.25483	
Cost Saving	191	18.9424	4.24535	
System Quality	191	22.4031	5.14524	
User Satisfaction	191	26.8796	6.12769	
Valid N (list-wise)	191			

# Table 7. Descriptive analysis

# 4.5 Reliability Study of Descriptive Analysis

For the reliability analysis, Cronbach's alpha method was used to compute the reliability of both the dependent and independent variables of this study. According to Sekaran and Bougie (2016), a tool to measure the internal consistency of the question is most used when researchers have multiple Likert questions in a survey or questionnaire that form a scale and they wish to determine if the scale is reliable. Table 8 shows the result of Cronbach's Alpha and the number of items (N) for both variables.

# Table 8. Reliability analysis of variables

Variables	Number of Items	Cronbach's Alpha
Ease of Use	6	0.895
Time-Saving	5	0.931
Cost-Saving	5	0.937
System Quality	6	0.951
User Satisfaction	7	0.957

As mentioned in Table 8, all variables were reliable and the question asked for each variable has higher reliability which is above 0.8. Based on the analysis, the highest value of Cronbach's Alpha is 0.957 represented by user satisfaction, then follow by system quality is 0.951.

Next, the value of Cronbach's Alpha is 0.937 represented by cost-saving, then follow by time-saving which is 0.931 Cronbach's Alpha. The lowest Cronbach's Alpha belongs to ease of use which is 0.895 but it is still the high value of Cronbach's Alpha.

# 4.6 Pearson Correlation

Table 9 explains the Pearson correlation of HRMIS satisfaction.



		Ease of	Time-Saving	Cost	System	User
		Use		Saving	Quality	Satisfaction
Ease of Use	Pearson Correlation	1				
	Sig. (2-tailed)					
	Ν	191				
Time-Saving	Pearson Correlation	.893**	1			
	Sig. (2-tailed)	.000				
	Ν	191	191			
Cost Saving	Pearson Correlation	.761**	.803**	1		
	Sig. (2-tailed)	.000	.000			
	Ν	191	191	191		
System Quality	Pearson Correlation	.803**	.884**	.822**	1	
	Sig. (2-tailed)	.000	.000	.000		
	Ν	191	191	191	191	
User Satisfaction	Pearson Correlation	.776**	.876**	.785**	.862**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	Ν	191	191	191	191	191

#### Table 9. Pearson correlation of HRMIS satisfaction

*Note.* \*\*. Correlation is significant at the 0.01 level (2-tailed).

#### 4.6.1 Pearson Correlation Analysis Between Ease of Use and User Satisfaction

For Pearson correlation between ease of use and user satisfaction, the result is 0.776 which indicates a positive relationship and a significant 0.000. Therefore, the null hypothesis can be rejected.

R (191) = 
$$0.776$$
, p =  $< 0.01$ , 2-tailed.

The result shows there is a significant relationship between ease of use and user satisfaction. The strength of the correlation is a very strong relationship with ranges from 0.70 to 0.99.

4.6.2 Pearson Correlation Between Time-Saving and User Satisfaction

The second variable is the Pearson correlation of time-saving and user satisfaction. The result is 0.876 which indicates a positive relationship and a significant 0.000. Therefore, the null hypothesis can be rejected.

R (191) = 
$$0.876$$
, p =  $< 0.01$ , 2-tailed.

The result shows there is a significant relationship between time-saving and user satisfaction. The strength of the correlation is a very strong relationship with ranges from 0.70 to 0.99.

4.6.3 Pearson Correlation Between Time-Saving and User Satisfaction

The third variable was analyzed by using Pearson Correlation on the mean between cost-saving and user satisfaction. The result is 0.785 which indicates a positive relationship



and a significant 0.000. Therefore, the null hypothesis can be rejected.

R (191) = 
$$0.785$$
, p =  $< 0.01$ , 2-tailed.

The result shows there is a significant relationship between cost-saving and user satisfaction. The strength of the correlation is a very strong relationship with ranges from 0.70 to 0.99.

4.6.4 Pearson Correlation Between System Quality and User Satisfaction

The last variables were analyzed by using Pearson Correlation on the mean between system quality and user satisfaction. The result is 0.862 which indicates a positive relationship and a significant 0.000. Therefore, the null hypothesis can be rejected.

R (191) = 0.862, p = < 0.01, 2-tailed.

The result shows there is a significant relationship between system quality and user satisfaction. The strength of the correlation is a very strong relationship with ranges from 0.70 to 0.99.

4.7 Multiple Regression Analysis

Table 10. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.899ª	.808	.804	2.71174

Through the comparison of R Square, the result for the four independent variables which are ease of use, time-saving, cost-saving, and system quality is 0.808 mean of 80.8 % (Table 10). Hence, 19.2 % is influenced by other factors that were not considered in this study.

Table 1	1. ANOVA	results
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Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5766.475	4	1441.619	196.045	.000 <sup>b</sup>
	Residual	1367.755	186	7.354		
	Total	7134.230	190			

The resulting ANOVA in Table 12 also showed that there is a significant correlation between predictor variables with user satisfaction which is .000<sup>b</sup>. The figures noteworthy are the sig value below 0.05 indicates a significant relationship.



Model		Standardized Coefficients	t	Sig.
		Beta		
1	(Constant)		2.172	.031
	Ease of Use	083	-1.140	.256
	Time Saving	.542	5.896	.000
	Cost Saving	.133	2.229	.027
	System Quality	.341	4.544	.000

# Table 12. Coefficient finding

The coefficient finding shown in Table 12 the regression coefficients for four predictor variables that affect user satisfaction. The significant result is less than 0.05. In Table 13, the sig represents the regression coefficients for ease of use (.256), time-saving (.000), cost-saving (.027), and system quality (.000). There are only three significant predictors in this result which are time-saving, cost-saving, and system quality.

# 4.8 Summary of Hypothesis Testing Result

This study found that hypotheses which are  $H_2$ ,  $H_3$ , and  $H_4$  are supported for this research while  $H_1$  is not supported. The analysis in Table 13, shows that the independent variables and the dependent variable answered the hypotheses.

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Table 1.5.	Summary O		tosting rost		uninne regr	Coolon analysis	•

Hypothesis		Result	<b>Result of Hypothesis</b>	
${\rm H_1}$	There is no significant statistical relationship between	B =083	Not Significant	
	ease of use and user satisfaction.	0.256	P > 0.05	
$H_2$	There is a significant statistical relationship between	B = 0.542	Significant	
	time-saving and user satisfaction.	0.000	P < 0.01	
${ m H}_3$	There is a significant statistical relationship between	B = 1.33	Significant	
	cost-saving and user satisfaction.	0.027	P < 0.05	
$H_4$	There is a significant statistical relationship between	B = 3.41	Significant	
	system quality and user satisfaction.	0.000	P < 0.01	

*Note*. P < 0.05 \*, P < 0.01\*\*.

Therefore, this study found that there is no significant relationship between ease of use and user satisfaction. However, time-saving, cost-saving, and system quality are significant in predicting HRMIS user satisfaction. It was discovered that HRMIS users were satisfied with HRMIS because they agree that with HRMIS they can save time, and cost and are satisfied with the quality of the system. Furthermore, there was no significant relationship between ease of use towards HRMIS satisfaction found because it proves that the HRMIS application is not easy to use and needs lots of guidance for staff to adapt to the system. Hence, these



results answered research question one which is the most significant factors that influence the users' satisfaction with HRMIS are time-saving and system quality.

Then, research question two was also answered in this study where three factors have a relationship time-saving, cost-saving, and system quality. However, it was found that there is no relationship between ease of use and user satisfaction with HRMIS. It was discovered that there is dissatisfaction towards the level of use of HRMIS whereby not all staffs from all generations are capable of adapting to the HRMIS application as soon as they face the interfaces of the application. The main reason for the negative relationship because of the lack of computer skills among staff besides, they are no more confident and comfortable using the system. Based on the demographic section in the data collected, only 19 respondents have been categorized as excellent in computer literacy while 36 and 61 of the respondents are in basic and moderate categories. The total of respondents has lacked computer literacy is high in the data. This organization should give detailed attention to employees to ensure proficiency in computer skills and upgrade the attributes of the system characteristics. When the system is easy to be understood, the staff can improve their understanding of operating and monitoring the current system.

# 5. Conclusion

This study was conducted in one of the enforcement organizations located in Terengganu. There are 191 respondents have been involved. The questionnaire was distributed to obtain the statistical results data from the respondents. Pearson correlation analysis showed that there is a positive relationship between the independent variables (time-saving, cost-saving, and quality system) and dependent variables (user satisfaction). This study has achieved all of its objectives. The results of 4 hypotheses in the study have been assessed however, only 3 of the hypotheses are acceptable and significant. The hypotheses which are H<sub>2</sub>, H<sub>3</sub>, and H<sub>4</sub> are acceptable and significant while H<sub>1</sub> was found not significant. The findings demonstrated that all independent variables affect user satisfaction in using the HRMIS system.

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# References

Ambundo, L. S. (2017). Factors affecting the implementation of Human Resource Management Information System in private firms in Kenya. Management University of Africa. Retrieved from https://core.ac.uk/download/pdf/196255896.pdf

Ammarhusein. (2015). The employee perception of the Human Resources Information Systems success. *International Journal of Business and Management Invention*, 4(2), 10–15. Retrieved from https://www.ijbmi.org/papers/Vol(4)2/Version-2/B0422010015.pdf

Dreheeb, A. E., Basir, N., & Fabil, N. (2016). Impact of system quality on users' satisfaction in continuation of the use of e-learning system. *International Journal of E-Education*, *e-Business*, *e-Management* and *e-Learning*, 6(1), 13–20.



https://doi.org/10.17706/ijeeee.2016.6.1.13-20

Hailu, T. (2014). The impact of Information System (IS) on organizational performance: With special reference to Ethio-Telecom Southern Region, Hawassa. *European Journal of Business and Management*, 6(37), 331–338. https://core.ac.uk/download/pdf/234626109.pdf

Ibrahim, H. (2016). *The determinants of end-user satisfaction with HRMIS and its influence on individual performance* (Issue September). Universiti Sains Malaysia (USM). Retrieved from http://eprints.usm.my/31584/1/Hadziroh\_Ibrahim.pdf

Ibrahim, H., Shamsuddin, F. M., Lazim Mohd Zin, M., & Subramaniam, C. (2018). Understanding user characteristics as antecedents of Technostress towards HRMIs: A mixed-method study. *Jurnal Pengurusan*, 53(2018), 37–47. https://doi.org/10.17576/pengurusan-2018-53-04

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30(3), 607–610. https://doi.org/10.1177/001316447003000308

Kumar, N., & Brijball Parumasur, S. (2013). The impact of HRIS on organizational efficiency: Random or integrated and holistic? *Corporate Ownership and Control*, *11*, 567–575. https://doi.org/10.22495/cocv11i1c6art4

Maditheti, N. N., & Gomes, A. M. (2017). Human Resource Information System: A review of previous studies. *Journal of Management Research*, 9(3), 92. https://doi.org/10.5296/jmr.v9i3.11488

Matimbwa, H., & Masue, O. S. (2019). Usage and challenges of Human Resources Information System in the Tanzanian public organizations. *Journal of Human Resource Management*, 7(4), 131–137. https://doi.org/10.11648/j.jhrm.20190704.17

Michel, S., & Cocula, F. (2017). Impact of the three IS qualities on user satisfaction in an information-intensive sector. *Electronic Journal of Information Systems Evaluation*, 20(2), 85–101. https://academic-publishing.org/index.php/ejise/article/view/145

Mugo, J. W. (2017). Perceived effectiveness of Human Resource Information System at Kenya Breweries Limited. University of Nairobi. Retrieved from http://erepository.uonbi.ac.ke/bitstream/handle/11295/103020/Mugo\_Perceived

Noutsa, F. A., Kamdjoug, J. R. K., & Wamba, S. F. (2018). Acceptance and use of HRIS and influence on organizational performance of SMEs in a developing economy: The case of Cameroon. *Advances in Intelligent Systems and Computing*, *569*(March), *563–580*. https://doi.org/10.1007/978-3-319-56535-4\_57

Richard, J. D., Carlson, K. D., & Michael, J. K. (2021). *Human Resource Information System* (*HRIS*): *Basics, applications and future directions*. SAGE Publications, Inc. Retrieved from https://www.ebooks.com/en-us/book/210040193/human-resource-information-systems/richar d-d-johnson/



Said, N. S. M., Razali, N. N. M., Ali, S. R. O., Ngah, H. C., & Shariff, S. N. F. A. (2014). The impact of HRIS implementations on users' satisfaction. *Journal of Basic and Applied Scientific Research*, 4(3s), 49–53. Retrieved from https://www.textroad.com/pdf/JBASR/J.%20Basic.%20Appl.%20Sci.%20Res.,%204(3s)49-5 3,%202014.pdf

Shahibi, M. S., Saidin, A., & Izhar, T. A. T. (2016). Evaluating user satisfaction on Human Resource Management Information System (HRMIS): A case of Kuala Lumpur City Hall, Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 6(10), 95–116. https://doi.org/10.6007/IJARBSS/v6-i10/2338

Sharma, C., Sakshi, S. S., & Kondal, N. (2023). Role and impact of human resource information system (HRIS) on organizational activities. AIP AIP Conference Proceedings. https://doi.org/10.1063/5.0123335

Shibly, H. (2011). Human Resources Information Systems success Assessment: An integrative model. *Australian Journal of Basic and Applied Sciences*, *5*, 157–169. Retrieved from

https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=1506319

Singh, S. (2014). A study of the effectiveness of Human Resource Information System on an organisation with special reference to Macleo d's Pharmaceutical Ltd (Issue 10). D.Y. Patil University, Navi Mumbai. Retrieved from https://www.academia.edu/43270073/A\_Study\_of\_the\_Effectiveness\_of\_Human\_Resource\_I nformation\_System\_on\_an\_Organisation\_with\_special\_reference\_to\_Macleods\_Pharmaceuti cal Ltd

Suharti, L., & Sulistyo, P. (2018). The implementation of human resources information system and it's benefit for organizations. *Diponegoro International Journal of Business*, *1*, 1. https://doi.org/10.14710/dijb.1.1.2018.1-7

Wong, D. (2015). *Employees' perception on human resource information system in human resource department of higher learning*. Universiti Malaysia Sarawak. Unpublished thesis. Retrieved from http://malrep.uum.edu.my/rep/Record/my.unimas.ir.12256

Yahya, M., Nadzar, F., & Rahman, B. A. (2012). Examining user acceptance of e-Syariah portal among syariah users in Malaysia. *Procedia – Social and Behavioral Sciences*, 67(November), 349–359. https://doi.org/10.1016/j.sbspro.2012.11.338

Yusliza, M.-Y., Yong, J. Y., Tanveer, M. I., Ramayah, T., Juhar, N. F., & Muhammad, Z. (2020). A structural model of the impact of green intellectual capital on sustainable performance. *Journal of Cleaner Production*, 249, 119334. https://doi.org/10.1016/j.jclepro.2019.119334

Zahari, A. S. M., Harun, M. A., Hamzah, S. F. M., & Salleh, S. M. (2018). The influence of Human Resource Management Information System (HRMIS) Application towards Employees Efficiency and Satisfaction. *Journal of Physics: Conference Series*, 1019(1).



https://doi.org/10.1088/1742-6596/1019/1/012077

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