

Evaluating User Satisfaction on Human Resource Management Information System (HRMIS): A Case of Kuala Lumpur City Hall, Malaysia

Mohd Sazili Shahibi, Azlinda Saidin, Tengku Adil Tengku Izhar
Faculty of Information Management, Universiti Teknologi MARA (UiTM), UiTM Selangor,
Shah Alam, Malaysia

DOI Link: <http://dx.doi.org/10.6007/IJARBSS/v6-i10/2338>

Published Date: 08 October 2016

Abstract

In today's knowledge based economy, organizational success depends tremendously on the performance of human resource management (HRM). Furthermore, Human Resource Management (HRM) has recently turned its concentration on knowledge sharing and strategic workforce analysis and has been increasingly evolving into a significant contributor on the organizational strategic management. The aim of this paper is to evaluate previous model on HRM in order to propose a framework based on Human Resource Management Information System (HRMIS) to evaluate users satisfaction. The contribution of this paper is to identify the level of user satisfaction of using HRMIS and whether there is any relationship between information quality, system quality and service quality with user satisfaction of using HRMIS.

Keywords: Human Resource Management; HRMIS; Service Quality; System Quality; User Satisfaction

1. Introduction

The measure of time and assets spent on keeping up the regulatory elements of human asset administration is important. A completely coordinated Human Resource Information System (HRIS) is utilized for business activities, for example, candidate following, execution administration, participation, remuneration and advantages administration, the investigation and planning of workforce (Mayhew, 2011). HRIS is likewise characterized as interrelated parts cooperating to gather, prepare and disperse data to bolster the basic leadership, coordination, control, dissect and perception of an association's Human Resource Management exercises, (Dessler, 2008). A completely incorporated HRIS additionally joins its capacities with every single other division for the effective accomplishment of authoritative objectives in this way it doesn't work in seclusion.

HRIS fundamentally is a framework that gives an individual keep a chance to track of all representatives and data about them. It is typically done in a database or all the more frequently in a progression of interrelated database. The primary capacity of human asset (HR) includes following numerous information focuses on every representative from work

force history, information, abilities and encounters to finance skills. HR capacities and exercises are presently being updated to completely influence on data and correspondence innovation (ICT). The fundamental presumption in utilizing HRIS is that it can help HR divisions in moving from conventional or manual low effect exercises to mechanized, vital and high effect exercises.

IT applications could never have existed without a long and costly incubation period in which PC force and telecom applications were committed to pick up the activity in science and innovation (Strassmann, 2006; Locke, 1999; Leslie, 2000). The essential target of executing data frameworks in the human asset administration is to encourages the association accomplish its objectives (Watson, 1993). Shocking & Morton (1971) propose that the essential target of a data framework in association is to bolster basic leadership.

In today's information based economy, hierarchical achievement depends massively on the execution of human asset administration (HRM) (Lippert & Swiercz, 2005; Troshani et al., 2011). Moreover, Human Resource Management (HRM) has as of late turned its fixation on information sharing and vital workforce investigation and has been progressively advancing into a noteworthy patron on the hierarchical key administration (Rodriguez & ventura , 2003; Troshani et al.,2011). This turn in HRM practices is halfway credited to advancements empowering influences, for example, human asset data framework (HRIS) which comprises of methodical methodology and capacities to obtain, store, recover, break down, control and spread important data concerning authoritative HR (Lippert & swiercz, 2005; Troshani et al.,2011). With a specific end goal to expand the viability of HRM, associations are turning out to be increasingly and reliant on HRIS (Ball, 2001; Lippert & swiercz, 2005; Troshani et al., 2011).

Kuala Lumpur City Hall or Dewan Bandaraya Kuala Lumpur, Malaysia (DBKL) now having more than 11,000 of the representatives. Having such various representatives, DBKL in this way not saved with regards to the issues of having a completely coordinated HRIS. The utilization of a completely incorporated HRIS is presently the foundation of most open segment. Hence, this study is to assess the level of client fulfillment on Human Resource Management Information System (HRMIS) at Human Resource Department of DBKL.

This concentrate particularly will be founded on assess the relationship between client fulfillment with data quality, framework quality and administration nature of HRMIS. The study embraces and adjusts data framework (IS) achievement model DeLone & McLean, 1992, 2002). This section will give the establishment for this study by giving outline of HRMIS application and execution.

1.1 The Challenge

It was discovered that the Human Resource Department (HRD) had not fully implementing of HRMIS but nevertheless they had implemented some of its functions such as Personal Record (PR), Establishment Data (ED), Service Record (SR) and Assets Declaration (AD) modules. The consequences, the integration of HR functions among the divisions and units of HRMD become complicated and conflict as the HR functions performed manually, individually and repetitively (Ball, 2001; Lippert and swiercz, 2005; Troshani et al., 2011). From the researcher observation and feedback received from the employees, the refusal of using HRMIS is due to their dissatisfaction of HRMIS quality.

The aim of this study is to develop a framework to identify the level of user satisfaction of using HRMIS and whether there is any relationship between information quality, system quality and service quality with user satisfaction of using HRMIS.

The remainder of this paper is organized as follows. Section 2 is literature review. Section 3 is framework. Section 4 discusses methodology and data analysis. Section 5 is discussion. The final section contains some concluding remarks.

2. Literature review

2.1 Human Resource Management Information System (HRMIS)

HRMIS is an integrated, technology-enabled Human Resource Management Information System incorporating Global Best Practices in human resource management. According to an article by Toresa & Torres (1998), HRIS can be defined as a software or online solution for the data entry, data tracking and data information needed for the human resources', payroll, management and accounting functions within a business. HRIS helps in managing of the company's most valued asset which is the human resource.

Chien & Tsaur (2007), conduct a study on exploring the achievement of Enterprise Resource Planning (ERP) frameworks by proposing a halfway expansion and respecification of the DeLone & MacLean model of IS achievement. The motivation behind the present examination is to reconsider the upgraded DeLone & MacLean model of IS accomplishment to ERP frameworks. Other than that, the analyst had additionally highlighted case on framework accomplishment from Saarinen's paper which gives four measurements of framework achievement incorporating the fulfillment with the improvement procedure, fulfillment with the framework use, fulfillment with the nature of the IS item and effect of the IS on the association.

The outcomes showed that most recent innovation was the most imperative element in deciding the nature of the framework. Framework quality, for example, execution, adaptability of changes, reaction time, and convenience is a specialized issue. The examination additionally found that framework quality and administration quality measurement are essential measurements for measuring execution ERP achievement.

Ping et al., (2012) conduct a study to look at the impression of consumer loyalty on e-saving money utilizing SERVQUAL model. More or less, this examination figured out how to decide the relationship between dependability, responsiveness, affirmation, sympathy and tangibles with consumer loyalty which differ as indicated by the way of administration and are emphatically identified with consumer loyalty.

By impacting client general quality recognitions, this study utilizes the SERVQUAL model to decide the relative noteworthiness of every administration quality properties. From the examination, it was affirmed that there were three characteristics had a huge association with consumer loyalty: dependability, compassion and tangibles, while responsiveness and certification were rejected.

Masrek et al., (2010), conduct a study on assessing the library gateway viability. The study had characterized the adequacy as between related builds of data quality, framework quality, administration quality, client fulfillment and individual effect. The outcomes got from the clear examination, found that it was apparent that clients appraised positively on all the builds, consequently recommended that the library gateway was viable. The specialist additionally had assessed the ramifications of the study from two points of view which is hypothetical and viable. From the down to earth point of view, the analysts demonstrated that the instrument utilized as a part of the study contains analytic qualities whereupon library entrance implementers can receive to assess the characteristics of their library entryway. The discoveries coming about because of the assessment additionally can be

utilized with the end goal without bounds change and upgrade of library entryway implementers.

Hassanzadeh et al., (2012) develop a model for measuring accomplishment of e-learning frameworks in colleges. These days, e-learning has brought about numerous progressions in advanced education, as it rose as another worldview of cutting edge training and has changed past learning idea (Sun et al., 2008; Wang et al., 2007). In this paper, by joining models and past studies, a model for measuring e-learning frameworks achievement entitled "MELSS" is exhibited to determine the shortcomings of past models and to fortify the quality. In the wake of finishing the markers of calculated model, taking into account understudies, graduated class and educators sentiments in colleges, MELSS model was composed and its wellness was affirmed.

Alshibly (2014) proposes a complete model of e-HRM achievement which recommends that data quality, framework quality, administration quality, client fulfillment and saw net advantages are achievement variables in e-HRM. This study gives the principal experimental test of an adjustment of DeLone & McLean's IS achievement model with regards to e-HRM. The model comprises of six measurements which is data quality, framework quality, administration quality, use, client fulfillment and saw net advantage. The results show that HR staffs perceive the benefit of an e-HRM system because they have used it and felt satisfied with its information system quality and service quality. While system usage and user satisfaction are commonly acknowledged as useful proxy measures of system success (Bailey & Pearson, 1983; Doll & Torkzadeh, 1988 ; Ives et al. 1983) this study suggests that user-perceived net benefit can be considered as the variable closer in meaning to success than system usage and user satisfaction.

The study clearly indicates that the total effects of information quality on use user satisfaction and perceived net benefit are substantially greater than those of system quality and service quality. That is in the context of e-HRM beliefs about information quality have a more dominant influence on use user satisfaction and perceived net benefit than beliefs about system quality and service quality.

3. Theoretical framework

Based on the model discussed in the previous section, we adopt the Delone & Mclean (2003) framework approach. This framework was selected because it provides a close relationship with the current study, which is to evaluate the user satisfaction of using HRMIS. In this study the relationship between the independent variables and dependent variable will be examined and hypotheses are proposed in this section.

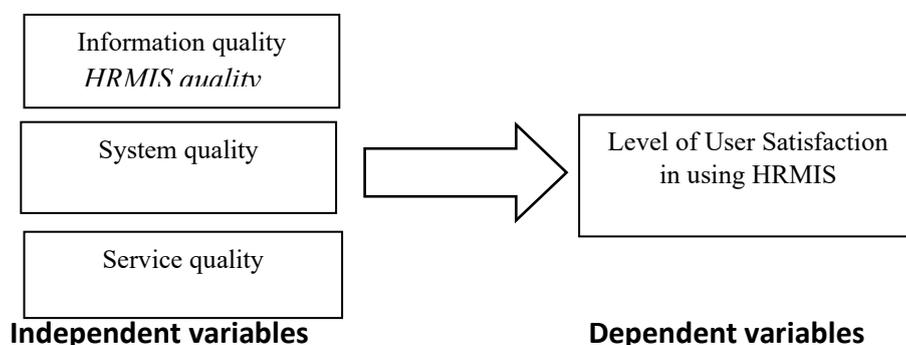


Fig. 1. Proposed framework.

In Fig. 1, the dependent variable is depending on or caused by other variables. It is a primary interest to be studied in the research. This study dependent variable is the user satisfaction of using HRMIS among employees. The independent variable is the variables that presumed to cause or determine a dependent variable. It is a variable that influencing dependent variable either it positive or negative way. These research independent variables are the relationship of HRMIS quality which is information quality, system quality and service quality.

3.1 User satisfaction

Client fulfillment might be characterized as the degree to which clients trust the data framework accessible to them meets their data prerequisites (Ives et al., 1983). In the data framework writing, the client fulfillment develop has been alluded to as "felt need", "framework", "MIS gratefulness", "observation", and "convictions" (Ives et al.1983; Swanson, 1982). Cyert & March's (1963) proposed the idea of client fulfillment if a data framework meets the necessities of the clients, the clients' fulfillment with the data framework will increment. Then again, if the data framework does not give the required data, the clients will get to be disappointed. Client fulfillment is a variable that intercedes enhanced levels of administrations or framework execution felt by clients and a fruitful IS. At the end of the day, client fulfillment is one most generally utilized segments as a part of the IS achievement model as a cause variable affecting the accomplishment of a data framework quality. Ives & Swanson (1982) expressed that client fulfillment was the level of meeting the data needs of clients. Estimation of client fulfillment is generally made out of encountering data framework products or administrations and after that assessing the outcomes.

3.1.1 Information quality

Information systems are created to provide useful decision making information to individuals and groups by storing, maintaining, processing and managing information resources. Their values are realized when the information provided is applied to operations. Ives & Swanson (1982) claimed that information quality is a critical factors that determines the success of information systems. Information quality refers to the quality of outputs the IS produces (Delone & McLean (1992), which can be in the form of reports or online screens. Ballou & Pazer (1987) define four dimensions of quality which is accuracy, currency and format related to the presentation layout of information outputs.

Shahibi et al., (2013) assessed the client discernment level on web data quality by utilizing data validity variables that comprises of dependability, reasonableness, significance, exactness and profundity. In view of the study, the outcomes found that dependability, decency, significance and profundity have critical effect on client discernment level of web data quality while precision the other way around.

Precision is most regularly characterized as rightness in the mapping of put away data to the fitting state in this present reality that the data speaks to (Delone & Mclean, 2003; Nelson et al., 2005; Wang, 1996). Culmination implies that all qualities for a specific variable are recorded. It concentrates on whether all qualities for all variables are recorded and held (Nelson et al., 2005; Zmud, 1979; Fisher & Kingma, 2001; Narasimhalah, Toni, & Wong, 2010; Wang, 1996). Consistency alludes to when the representation of the information worth is the same in all cases (Ballou & Pazer, 1987). Coin alludes to the extent to which data is

progressive, or the extent to which the data definitely mirrors the present condition of the world that it speaks to (Delone & Mclean, 2003; Bailey & Pearson, 1983; Barki & Huff, 1985).

Accordingly, there are four general classifications of data quality distinguished for this examination. Position measures the extent to which framework capacities and design and archive arrangements are reasonable for data use. Cash measures that it is so natural to pursuit data and HRMIS offers data to clients continuously. Precision measures the extent to which data is solid, adequate and the level of utilizing the data without remedy. Importance measures the extent to which data in a framework is identified with a client's undertaking and the level of different alternatives relying upon the client's errand.

There are four broad categories of information quality identified for this research. Format measures the degree to which system functions and configuration and document formats are suitable for information use. Currency measures how easy it is to search information and HRMIS offers information to users in real time. Accuracy measures the degree to which information is reliable, sufficient and the degree of using the information without correction. Relevance measures the degree to which information in a system is related to a user's task and the degree of various options depending on the user's task.

H1: The user satisfaction will have positive relationship with information quality

3.1.2 System quality

System quality represents the quality of the information system processing, which includes softwares and data components. System quality additionally measures the degree to which the framework is in fact sound, (Seddon, 1997) noticed that system quality is worried with whether there are bugs in the system, the consistency of client interface, convenience, nature of documentation and infrequently, quality and viability of the system code. Delone & Mclean (2003) report that system quality is measured by traits, for example, usability, usefulness, dependability, information quality, adaptability and joining. Sedera & Gable (2004) created and approved a far reaching instruments for framework quality which brought about ten traits which is usability, simplicity of learning, client prerequisites, system highlights, system exactness, adaptability, advancement, movement, joining and customization.

In this way, from the past exploration there are two general classes distinguished for system quality. The network measurement reflects ASP-based HRMIS for similarity with other programming and the IT device. The convenience measurement means usability, openness and steadiness being used.

H2: The user satisfaction will have positive relationship with system quality

3.1.3 Service quality

Service quality was measured as quick responsiveness, assurance, empathy and following-up service. Delone & Mclean (2003) define service quality as the overall support delivered by the service provider and it applies regardless of whether their support is delivered by the IS department, a new organizational unit, or outsourced to internet service provider. They measured service quality through three attributes which is assurance, empathy and responsiveness.

Therefore there are four broad categories for information quality which is responsiveness, follow up service, assurance and reliability. Responsiveness measures quickness of reaction to change in the situation and quickness of technical support for maintenance and repair. Follow

up service measures the degree to which user's education, manuals and advice are provided to users during use. Assurance measures the degree to which the HRMIS service provider possesses knowledge of the construction field and whether the HRMIS service provider is faithful. Reliability is the degree of trust of safety regarding data security and capability.

H3: The user satisfaction will have positive relationship with service quality

4. Methodology and Data Analysis

Research projects can be focus on a specific group of people, facilities, employee evaluations, program, financial status, marketing efforts, or the integration of technology into the operations. The research problem and the purpose of the study assists the researcher in identifying the group to involve in the study. In this study, population that has been selected is the Human Resource Department of Dewan Bandaraya Kuala Lumpur that have 244 number of employees. To define the accurate number of sample size involve, the survey system (sample size calculator) software is used whereby the sample size that has been recommended is over 120 employees. The final questionnaire consists of 29 questions that being divided into 4 main parts which is information quality, system quality, service quality and level of user satisfaction.

4.1 Response rate

In this paper, there is about 150 self-administered questionnaires were distributed to employees of Human Resource Department, Dewan Bandaraya Kuala Lumpur (DBKL). There were 100 questionnaires returned after one week being distributed. There are 4 questionnaires rejected because of the respondents do not indicated score for the questions and also answer the same question and others 6 questionnaires were missing. This questionnaires was structured in English language.

4.2 Frequency of HRMIS usage

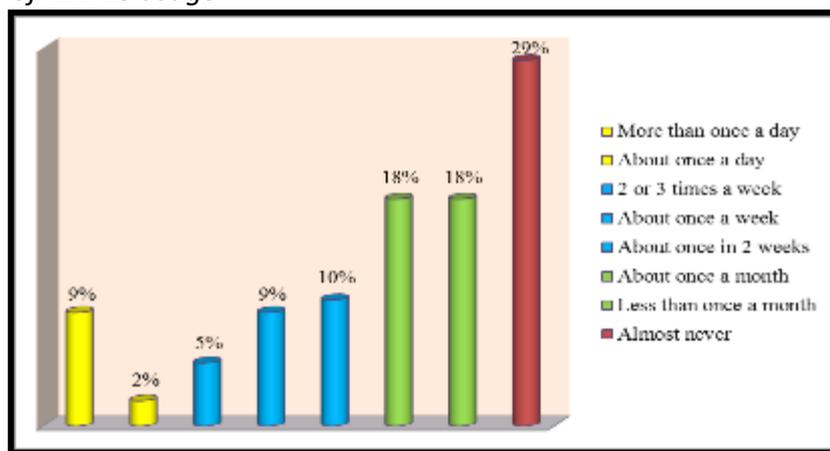


Fig.2. Frequency of usage.

In Fig. 2, the result shows that 29% of the respondents are almost never use HRMIS which represent 26 respondents of the total respondents. There are 16 respondents or 18% of the total respondents are use the less than once a month and about once a month of HRMIS usage respectively. While 9 respondents or 10% of the total respondents use HRMIS about once in

two weeks and another 8 respondents or 9% of the total respondents use HRMIS once a week. Meanwhile 5% of the respondents are use HRMIS 2 or 3 times a week which represent 5 respondents. There are 9% of the respondents are use HRMIS more than once a day which represent 8 respondents of the total respondents. Moreover 2% of the respondents use HRMIS at least once a day which represent 2 respondents of the total respondents.

4.3 Reliability Analysis

A reliability coefficient indicates that all questionnaires that were used in the study are reliable. According to Malhorta (2002), reliability refers to the extent which a scale produces constant results if repeated measurements are made. The “N” represents the number of items that is data related to research objectives. According to Zickmund (2003), if the result Cronbach’s Alpha value 1 – 1.59 (Worst), 0.6 – 0.69(Acceptable), 0.7 – 0.79 (Fair), 0.8 – 0.89 (Good) 0.9 – 1.0 (Perfect).

Table 1. Reliability Statistic

Constructs	Cronbach α	N of items
Information Quality	0.806	10
System Quality	0.732	5
Service Quality	0.779	5
User Satisfaction	0.793	9

Table 1 show that the reliability test for information quality is 0.806. It shows that the reliability of this research is good due to Cronbach’s Alpha value falls between 0.8-0.89 and N of items of 10 that indicates that there are 10 questions that relevant to ask for respondents. The reliability test for system quality is 0.732. It shows that the reliability of this research is fair due to Cronbach’s Alpha value falls between 0.7-0.79 and N of items of 5 that indicates that there are 5 questions that relevant to ask for respondents. The reliability test for service quality is 0.779. It shows that the reliability of this research is fair due to Cronbach’s Alpha value falls between 0.7-0.79 and N of items of 5 that indicates that there are 5 questions that relevant to ask for respondents.

4.4 Descriptive Analysis

Overall, based on the analysis, it reflects on the positive score of mean which is more than 3.0. The overall mean produced in this research shows the respondents' understanding in participating and be able to respond accordingly. Furthermore, this score indicates the acceptable instrument used to measure four independent variables.

Table 2. Descriptive statistic for information quality (IQ)

Item Code	Item	N	Min	Max	Mean	Std. Deviation
IQ1	System functions and configuration should be related to required information	90	1.00	5.00	3.9000	.87474
IQ2	System screen configuration or document formats should be suitable for information use	90	1.00	5.00	3.8667	.83733
IQ3	Search of information should be easy	90	1.00	5.00	4.0222	.88658
IQ4	HRMIS should offer information to users on real time	90	1.00	5.00	4.0000	.83464
IQ5	Information in system should be reliable	90	1.00	5.00	4.0556	.76967
IQ6	Information in system could be used without correction	90	1.00	5.00	3.7333	.92165
IQ7	Information in system should be sufficient	90	1.00	5.00	3.9000	.82175
IQ8	Information in system should be related to user's task	90	1.00	5.00	3.9000	.82175
IQ9	Information in system should be related to human resource activities	90	1.00	5.00	3.9556	.71753
IQ10	Options for information usage should be various depending on the user's task	90	1.00	5.00	3.8667	.76731
	Valid N (listwise)	90				

Overall mean for information quality are 4.3555 which indicate that this variables is acceptable and the respondents are positive and agree with the developed characteristic of this variable. Table 2 describes the mean score for each item to measure this variable. It shows that item IQ5 scores the highest mean value of 4.0556 while item IQ6 scores the lowest mean value of 3.7333. Both still exceed 3.0 values.

Table 3. Descriptive statistic for system quality (SQ)

Item Code	Item	N	Min	Max	Mean	Std. Deviation
SQ1	HRMIS should be compatible with other software	90	1.00	5.00	3.8333	.87730
SQ2	HRMIS should connect to other IT tools (such as PDA, RFID)	90	1.00	5.00	3.7444	.91873
SQ3	Data input/output functions should be operated easily(e.g. up/download, printing)	90	1.00	5.00	3.8111	1.00442
SQ4	Access to system should be not difficult	90	1.00	5.00	3.9778	.80696
SQ5	System should maintain the stable state	90	1.00	5.00	4.0444	.84682
	Valid N (listwise)	90				

Overall mean for system quality are 3.8822 which indicate that this variables is acceptable and the respondents are positive and agree with the developed characteristic of this variable. Table 3 describes the mean score for each item to measure this variable. It shows that item SQ5 scores the highest mean value of 4.0446 while item SQ2 scores the lowest mean value of 3.7444. Both still exceed 3.0 values.

Table 4.
Descriptive statistic for service quality (SVQ)

Code Item	Item	N	Min	Max	Mean	Std. Deviation
SVQ1	Reaction of HRMIS help desk should be quick in the situation of technical difficulties	90	1.00	5.00	4.0222	.83434
SVQ2	Education for HRMIS users should be provided adequately	90	1.00	5.00	4.0222	.82077
SVQ3	User's manual and guidance should be provided adequately	90	1.00	5.00	4.0000	.82107
SVQ4	User should feel safe regarding data security	90	1.00	5.00	4.1556	.81985
SVQ5	User should trust capability of HRMIS service provider	90	1.00	5.00	3.8556	.77258
	Valid N (listwise)	90				

Overall mean for service quality are 4.0111 which indicate that this variables is acceptable and the respondents are positive and agree with the developed characteristic of this variable. Table 4 describes the mean score for each item to measure this variable. It shows that item SVQ4 scores the highest mean value of 4.1556 while item SVQ5 scores the lowest mean value of 3.8556. Both still exceed 3.0 values.

Table 5: Descriptive statistic for level of user satisfaction (US)

Code Item	Item	N	Min	Max	Mean	Std. Deviation
US1	All things considered, I am very satisfied with the HRMIS performance	90	1.00	5.00	3.3778	.85562
US2	All things considered, I am very pleased with the experience of using the HRMIS	90	1.00	5.00	3.3889	.75987
US3	Overall, my interaction with the HRMIS is very satisfying	90	1.00	5.00	3.3889	.78889
US4	The employees of the Human Resource (HR) department appear to be satisfied with HRMIS	90	1.00	5.00	3.4222	.77862

US5	Overall I am very satisfied with the modules provided and are available for use	90	1.00	5.00	3.4444	.78054
US6	Our HRMIS has met my expectations	90	1.00	5.00	3.2889	.82441
US7	HRMIS is good system in human resource activities	90	1.00	5.00	3.6333	.89254
US8	HRMIS provide high quality standard of system	90	1.00	5.00	3.5444	.88890
US9	Overall, HRMIS are highly accepted	90	1.00	5.00	3.6556	.97337
	Valid N (listwise)	90				

Overall mean for level of user satisfaction are 3.460 which indicate that this variables is acceptable and the respondents are positive and agree with the developed characteristic of this variable. Table 5 describes the mean score for each item to measure this variable. It shows that item US9 scores the highest mean value of 3.6556 while item US6 scores the lowest mean value of 3.2889. Both still exceed 3.0 values.

4.5 Difference of user satisfaction level

4.5.1 T-Test

The findings in Table 6 indicate that the average mean for male and female respondents which are 3.3892 and 3.4232 respectively. It is strongly indicates that the level of user satisfaction amongst respondents is not based on gender as only small difference of average mean between male and female.

Table 6. Gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
User satisfaction	Male	38	3.3892	.63101	.12880
	Female	52	3.4232	.50067	.07081

4.5.2 ANOVA

In this Table 7, it can be seen that the age is insignificant with the dependent variable user satisfaction because it F value is smaller than F-table value which is 1.368 and 2.76 respectively. It also can be proved by the p – value which is higher than 0.05.

Table 7. Age

User satisfaction					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.841	3	.421	1.449	.242
Within Groups	20.618	86	.290		
Total	21.460	89			

f-table=2.76

Table 8. Job Position

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.210	2	.105	.105	.706
Within Groups	21.250	87	.299		
Total	21.460	89			

f-table=2.53

From the table above, it can be seen that the job position is insignificant with the dependent variable user satisfaction because its F value is smaller than the F-table value which is 0.105 and 2.53 respectively. It also can be proved by the p – value which is higher than 0.05.

4.6 Correlation Analysis

The Pearson – Correlation is used because the researcher wants to know how the variable is related to each other. According to Sekaran (2003), Pearson Correlation will indicate the direction, strength, and significance of the vicariate relationships of all the variables in the study. The purpose of correlation is to check the relationship between independent variable and dependent variable by analyzing the score on Sig. (2-tailed) and Pearson Correlation. Sig. (2-tailed). It will explain whether independent variables are significant to the dependent variable. The score must be between 0.01-0.05 in order to be valid.

Pearson Correlation is a tool to indicate whether there is any relationship between user satisfaction as dependent variable and information quality, system quality and service quality as well as either strong or weak and the score must be over 0.05 in order to be valid. Thus, the decision to accept or reject H1 will be decided.

A correlation coefficient of $r = 0.50$ indicates a stronger degree of a linear relationship while a correlation coefficient of zero ($r = 0.00$) indicates the absence of a linear relationship and correlation coefficients of $r = +1.00$ and $r = -1.00$ indicate a perfect linear relationship (Cohen & Cohen, 1983). In order to determine the relationship of the independent variables and dependent variable (service quality) the table below can be used.

Table 9. Correlation Analysis

Coefficient size	Strength of Relationship
0.71-1.00	Strong
0.41-0.70	Moderate
0.11-0.40	Weak
0.00-0.10	Non

The rule of thumb as regard to strength of correlation of coefficient is, if the R-value is between 0.71 to 1.00 is a strong relationship, between 0.41 to 0.70 is moderate, and lastly is between 0.01 to 0.40 is weak.

Table 10: Correlation statistics

No	Hypothesis	Coefficient	Supported
H1	Information Quality has a positive relationship with user satisfaction	.428**	Yes
H2	System Quality has a positive relationship with user satisfaction	.191	Yes
H3	Service Quality has a positive relationship with user satisfaction	.303**	Yes

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

From the Table 10 above, it shows that user satisfaction and significant correlation at 0.01 levels (2-tailed) with information quality that a value of 0.428. It shows that between user satisfaction and information quality, it has positive relationship on moderate level. The table also shows that user satisfaction and significant correlation at 0.01 levels (2-tailed) with system quality that a value of 0.191. It shows that between user satisfaction and system quality, it has positive relationship on weak level.

While the table above also shows that user satisfaction and significant correlation at 0.01 levels (2-tailed) with service quality that a value of 0.303. It shows that between user satisfaction and system quality, it has positive relationship on weak level.

5. Discussion

5.1 Level of user satisfaction on using HRMIS

The level of user satisfaction on using HRMIS were determined by user satisfaction characteristics such as HRMIS performance, pleased with the experience of using HRMIS, interaction, appearance, modules provided and availability for use, expectations, good system in performing human resource activities, high quality standard of system and user acceptance. From the results, it can be stated that HRMIS is highly accepted by the user which the highest mean value of 3.6556. Consequently, it shows that the higher HRMIS is accepted the higher the level of user satisfaction towards HRMIS application. It can be assumed that the higher of user acceptance is due to user belief that HRMIS is a good system in performing human resource activities which ranked second highest mean value of 3.6331.

This study indicates that level of user satisfaction is important characteristic in evaluating the system success (Bailey & Pearson 1983; Doll & Torkzadeh 1988 1998; Ives et al. 1983). Therefore, the research objective to identify the level of user satisfaction on using HRMIS is achieved as it also contributed to the HRMIS success.

5.2 Relationship between user satisfaction and information quality, system quality and service quality

5.2.1. User Satisfaction VS Information Quality

The second research question is to determine the relationship between user satisfaction and information quality. In order to study about the correlation between independent

variables and user satisfaction, correlation analysis was used. The Pearson – Correlation is used because the researcher wants to know how the variable is related to each other.

According to Sekaran (2003), Pearson Correlation will indicate the direction, strength, and significance of the vicariate relationships of all the variables in the study. The information quality characteristics including systems functions and configuration, suitability of document format, easiness of information searching, real time, reliability, error free, sufficient, relatedness to user's task and human resource activities and lastly, variation of information usage depends on the user's task.

From the finding the researcher can conclude that user satisfaction have a positive relationship with HRMIS information quality. The reliability of information become major concern of user satisfaction among the other information quality characteristics. This results consistent with the study on users level of perceptions on preferred type of information on internet (Shahibi *et al.*, 2013) that indicates reliability is one important characteristics besides fairness, importance and depth of the information in measuring the level of user perception. Besides, this study also consistent with Ping *et al.*, (2012) research findings on examining the perception of customer satisfaction on e-banking using SERVQUAL model which had confirmed that reliability, empathy and tangibles are positively related with user satisfaction of information system.

Information quality also become the major contribution towards user satisfaction of using HRMIS compared to system quality and service quality as its overall mean value is 4.355 higher than 3.8822 for system quality and 4.0111 for service quality. The findings are also consistent with the previous study (Alshaiby, 2014; Masrek *et al.*, 2010) that information quality have positive relationship with user satisfaction of information system. Therefore, the study support the hypothesis on the user satisfaction will have positive relationship with information quality.

5.2.2 User Satisfaction VS System Quality

Another research question is to determine the relationship between user satisfaction and system quality. From the system quality dimension, the results shows that system should maintain the stable state as most important characteristics in determining the relationship with user satisfaction followed by accessibility, compatible with other software, easiness of data input/output functions and connection with IT tools such as PDA and RFID.

System stability can be refer as the ability to collect, manage, and provide data properly without failure. A more formal assessment of the system's stability could be made through modeling procedures (Johnson, & Malek, 1988). The findings are also consistent with the previous study (Alshaiby, 2014; Masrek *et al.*, 2010) that system quality have positive relationship with user satisfaction of information system. Therefore, the study support the hypothesis on the user satisfaction will have positive relationship with system quality.

5.2.3 User Satisfaction VS Service Quality

The findings of this research shows that user satisfaction have positive relationship with service quality of HRMIS. The service quality consists of characteristics such as quick respons of help desk, education, user manual and guidance, data security and trust capability of HRMIS service provider.

Among all the characteristics, it was found that the user satisfaction of using HRMIS is more influenced by user feeling of safe regarding data security. The researcher can conclude that data security is of significance to the user as they are concerned about the availability of confidential and personal information to unauthorized parties (Albert, 1986).

HRMIS contains user personal information such as employees income, expenditure, financial commitment and assets that they and their spouse possess. Furthermore, HRMIS also contains employees' service information starting from their employment until their retirement of service. The findings are also consistent with the previous study (Alshaiy, 2014; Masrek *et al.*, 2010) that service quality have positive relationship with user satisfaction of using HRMIS. Therefore, the study support the hypothesis on the user satisfaction will have positive relationship with service quality.

5.3 Recommendation

This study reveals that the employees at Human Resource Department, DBKL are satisfied with the HRMIS information quality, system quality and service quality. However among the three system qualities, information quality is dominant than the other qualities. It shows that the users are more concern on the information quality for example usefulness, completeness, reliable and timeliness. This means the Human Resource Department, DBKL should pay much more attention to promoting the information quality. Therefore, it will facilitate the willingness of the employees to fully use the information system.

It is also recommended for the management of Human Resource Department, DBKL to seriously pay attention on the frequency of HRMIS usage amongst the employees as 29% of the total 90 respondents declared that they are almost never use the system. However, it was interesting to find that contradiction occurs as the results of high level of user satisfaction on using HRMIS. Therefore, it can be assumed that eventhough 26 respondents out of 90 total respondents stated that they are almost never use the system, but they have strong belief that HRMIS is useful in performing human resource activities. It may involve other factors that may influence the increasing in the number of HRMIS usage frequency. Further study on the factors influence the usage frequency of HRMIS may reveal the cause and effect of this situation.

Theoretically, this study is able to contribute to the human resource information system research body in the following two ways: (a) This study further examines the HRMIS quality dimensions in terms of what should be used for human resource information system evaluations. Meanwhile, the three dimensions of HRMIS quality tend to have more in common in user satisfaction; and (b) this study contribute to the theory by further empirical testing of the DeLone & McLean IS Success Model in a different setting and system context than in previous studies as recommended by various authors (e.g. DeLone & McLean 2003; Iivari 2005). Consequently this study is among a few study to empirically validate a comprehensive success model for Human Resource Information System (HRIS). Thus this study advances the theoretical development in the area of such systems serving as a basis for future research in this field. Moreover by using an established IS theory as the theoretical basis for a benchmarking of researcher study, this study is an attempt to apply rigorous research to a practical highly relevant problem.

5.4 Limitation and future study

Two factors are associated with the gaps. Firstly, there might be a lack of awareness of the importance of those criteria, which are not directly associated with HRMIS use, such as collaboration or sharing in HRMIS development and application, and extended social effect in terms of how HRMIS change our daily routine of work, norms, cultural exchanges, etc.

Secondly, it might be difficult to develop a valid instrument to measure a given criterion. For instance, it might not be practical to evaluate content comprehensiveness and integrity to other resources, because there is hardly a way of examining how many documents can be considered as comprehensive in a given subject area, and what is out there that a given record or document can be integrated with. Therefore, further research is needed to study these overlooked important criteria and to develop valid assessment instruments to measure them.

Thirdly, the evaluation of user satisfaction is limited to HR department as administrator and owner of the information system. However, the general user which is all employees of DBKL are also need to be evaluated in terms of their satisfaction of using HRMIS. The various stakeholders' satisfaction, experiences and perception on HRMIS can reflect the actual performance of HRMIS in meeting the user needs and requirements.

Finally, the study should further evaluate the user satisfaction in terms of the result produced that have significant impact on individual, departmental as well as organizational performance.

In brief this study provided a structure for understanding HRMIS success and explored the impact of both quality on HRMIS and HRMIS satisfaction. The detailed framework the research built from theory and empirical research provides a foundation for future research.

6. Conclusion

With the advent and development of HRMIS research measuring multiple HRMIS success variables continues to be important. This model provides a rich portrayal of the dynamics surrounding quality measures satisfaction evaluation usage. The results show that HR employees satisfied with HRMIS because they had belief with its information quality, system quality and service quality. From a practical point of view our model offers a means for organizations to evaluate and predict the success implementation of HRMIS. The HRMIS success like the success of any other information system is multidimensional and interdependent in nature. Owing to the research results practitioners now know more about the levers that help to improve their HRMIS and can prioritize their investments accordingly.

References

- Arosen, B. (2005). *Decision Support Systems and Intelligence Support Systems*. New Jersey: Prentice Hall.
- Albert, L. L. (1986). *What the Human Resources User Wants*, University of Pittsburgh.
- Alshibly, H.H. (2014). Evaluating E-HRM success: A Validation of the Information Systems Success Model, 4(3), *International Journal of Human Resource Studies*. 4(3), 1-13.
- Awazu, Yukika & Desouza, Kevin C. (2003). Knowledge Management. *HR Magazine*. 48(11), 107.

- Ball, K.S. (2001). The use of human resource information systems: a survey. *Personnel Review*, 30(6), 677-693. Retrieved on December 20,2014 from <http://dx.doi.org/10.1108/EUM0000000005979>
- Ballou D.P., & Pazer, H.L. (1987). Cost/Quality tradeoffs of for control procedures in Information Systems, *Omega* 15(6), 509-521.
- Bailey, J.E. & Pearson, S.W. (1983). Development of a tool for measuring and analyzing computer user satisfaction, *Management Science*, 29(5), 530-545.
- Barki, H. & Huff, S.L. (1985). Change, Attitude to Change and Decision Support System Success, *Information Management*, 9(5), 261-268.
- Beadles II, N.A., Lowery, C.M. & Johns, K. (2005). The impact of Human Resource Information Systems: An exploratory study in the public sector. *Communications of the IIMA*, 5(4), 39-46.
- Beulen, E. (2009). The contribution of a global service provider's Human Resource Information System (HRIS) to staff retention in emerging markets comparing issues & implications in six developing countries, *Information Technology and People*. 22(3), 270-288.
- Brown, David. (2002). eHR – Victim of Unrealistic Expectations. *Canadian HR Reporter*. 15(16),1-6.
- Cascio, W. F. (2003). *Managing Human Resources* (6th Ed). New Dehli: Tata McGraw-Hill.
- Chien, S.W. & Tsaun, S.M. (2007). Investigating the success of ERP systems: Case studies in three Taiwanese high-tech industries. *Computers in Industry*, 58, 783-793.
- Crane, P. D., & Miner, J. B. (1995). *Human Resource Management*. New York: Harper Collins Publishers.
- Delone, W.H. and Mclean, E.R. (1992). Information systems success: the quest for dependent variable, *Information Systems Research*. 3(1), 60-95.
- Delone, W.H. and Mclean, E.R. (2002). The Delone & Mclean model of information success: a ten-year review, *Journal of Management Information Systems*. 19(4), 9-30.
- Dessler. (2008). *Human Resource Management* (11th edition). New Delhi: Pearson Education Inc.
- Fisher, C.W., & Kingma, B.R. (2001). Critically of data quality as exemplified of two disasters, *Information Management*, 39(2), 109-116.
- Gallagher, M. (2006). *Computers and Personnel Management*. London: Heinemann.

- Haines, & Peitt. (1997). *Human Resource Management: Contemporary Issues, Challenges and Opportunities*. USA: Information Age Publication.
- Hassanzadeh, A., Kanaani, F., & Elahi, S. (2012). A model for measuring e-learning system success in universities. *Expert Systems with Applications*, 39, 10959-10966.
- Ives, B., & Olson, M.H. (1984). User involvement and MIS success: a review of research, *Management Science*, 30(5), 586-603.
- Johnson, AM. Jr., & Malek, M. (1988) Survey of software tools for evaluating reliability, availability, and serviceability, *Association for Computing Machinery Surveys*,20(4).
- Karimidizboni, R., M.A. (2013). Human resources information system. *Interdisciplinary Journal of Contemporary Research in Business*, 4(10), 1004-1017. Retrieved from <http://search.proquest.com.ezaccess.library.uitm.edu.my/docview/1324456596?accountid=42518>
- Lippert, S.K., & Swiercz, P.M. (2005). Human resource information systems (HRIS) & technology trust. *Journal of Information Science*, 31(5), 340-353. Retrieved on December 21, 2014 from <http://dx.doi.org/10.1177/0165551505055399>
- Manzini, A., & Grindley. (1986). *Integrating human Resources and Strategic Business Planning*. Washington D.C: Amacon.
- Masrek, N.M., Jamaludin, A., & Mukhtar, S.A. (2010). Evaluating academic library portal effectiveness: A Malaysian case study, *Library Review*, Emerald Group Publishing Limited. 59(3), 198-212.
- Martinsons, M. (1997). Human resource management applications of knowledge-based systems. *International Journal of Information Management*, 17(1), 35-53. Retrieved on December 21, 2014 from [http://dx.doi.org/10.1016/S0268-4012\(96\)00041-2](http://dx.doi.org/10.1016/S0268-4012(96)00041-2).
- Mayfield, J., Mayfield, M., & Lunce, S. (2003). Human Resource Information Systems: A Review and Model Development. *Advances in Competitiveness Research*. 11(1), 139-151.
- Mayhew, R. (2011). *The Business Today*. India: Sancu Publishing.
- Mohd Sazili Shahibi, Mazwani Ayu Mazlan, Hamka Mohd Noor, Muhammad Saufi Mohd Hanafiah. (2013). Perception towards the credibility of information in internet among young malay generation, *International Journal of Education and Research*,1(7),1-8. Retrieved from <http://www.researchgate.net/publication/270451144>.

- Narasimhalah, G., Toni, M.S., Wong, B. (2010). Organizational impact of system quality, information quality and service quality, *The Journal of Strategic Information Systems*, 19(3), 207-228.
- Nelson, R.R., Todd, P.A., Wixom, B.H. (2005). Antecedents of information and system quality; an empirical examination within the context of data warehousing, *Journal of Management Information System*, 21(4), 199-236.
- Overman, S. (1992). Reaching for the 21st Century. *HR Magazine*, 37, 61-63.
- Peters & Waterman. (1982). *In Search of Excellence*. Harper & Row: New York.
- Ping, C.T.Y., Suki, N.M., & Suki, N.M. (2012). Service quality dimension effects on customer satisfaction towards e-banking. *Interdisciplinary Journal of Contemporary Research in Business*, 4(4), 741-751.
- Rodriguez, J.M., & Ventura, J. (2003). Human resource management systems & organizational performance: an analysis of the Spanish manufacturing industry. *International Journal of Human Resource Management*, 14(7), 1206-26. Retrieved on December 18, 2014 from <http://dx.doi.org/10.1080/0958519032000114273>.
- Seddon, P.B. (1997). A respecification and extension of the DeLone & Mclean's model of IS success, *Information System Research*, 8(3), 240-253.
- Sekaran, U. (2003). *Research methods for business: A skills building approach*. 4th ed. Singapore: John Wiley & Sons, Inc.
- Swanson, E.B. (1974). Management Information System: Appreciation and involvement, *Management Science*, 21(2), 178-188.
- Thomas, S. A. (2002). *Evaluation Practice Reconsidered*. New York: Lang Publishers.
- Toresa & Toress. (1998). *Information Technology at its best*. Midow.
- Totty, P. (2001). *Human resource information systems*. Madison: Credit Union National Association, Inc.
- Troshani, I., Jerram, C., & Rao, S. (2011). Exploring the public sector adoption of HRIS. *Industrial Management and Data Systems*, 111(3), 470-488. Retrieved on December 20, 2014 from <http://dx.doi.org/10.1108/02635571111118314>
- Wang, R.Y., Strong, D.M. (1996). Beyond Accuracy: What data quality means to data consumers, *Journal of Management Information System*, 12(4), 5-34.
- Zmud, R.W. (1979). Individual differences and MIS success: a review of the empirical literature, *Management Science*, 25(10), 966-979.

