The Role of Motivation in Acceptance of Human Resource Information Systems: an Empirical Study

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Abstract

In view of the revolution in information technology infrastructure, the face of the existing workplace has changed and systems have been made more effective by introducing new information system functions. The majority of organizations have now understood the importance of utilizing information systems in organization. In this paper, we focus on how motivation and training are helping in ensuring the effectiveness of HRIS acceptance. Human Resource Information System (HRIS) is an opportunity for organizations to make the HR department administratively and strategically participative in operating the organization. For this purpose, we have conducted a survey of 15 HR Managers from various organizations in Jordan. The results show motivation and training have significant impact on HRIS acceptance, while motivation does not have any effect on training. Furthermore, training has a mediating effect on HRIS acceptance. Suggestions and recommendations are provided.

Keywords*: Motivation, human resource information system acceptance, Jordan

1. Introduction

The HR function of an organization deals with the employee's needs in all of the organization's HR requirements. As with other managerial functions, HR strategies and practices are implemented to determine many operations of the organization in a suitable style. Using HRIS (HumanResourceInformationSystem) technology is a tool for putting into practice these HR strategies and practices by complying with the HR requirements of an organization more efficiently, through web- technology based channels (Ruël et al., 2004).HRIS is an integrated system consisting of the databases, communication, hardware, and software necessary to collect, store, manage, present, and use data for a company's human resources procedure (Broderick&Boudreau, 1992).

Furthermore, a survey conducted by the Institute of Management and Administration in the year 2002highlighted some factors which affect HR, such as shortage of employees, lack of funds or management time; the need to work with other departments, and a lack of information technology support (Ngai and Wat, 2006) as challenges in managing HRIS. Previous studies discuss the adoption and use of HRIS, considering the type of applications that dominate HRIS (Clark etal.,2000),the importance off actors for successful acceptance of HRIS ,the factors that encourage successful HRIS implementation (Haines&Petit,1997), and general issues for organizational adoption (e.g.,Panayotopoulouetal.,2007;Lau&Hooper,2008).Most of these studies were implemented in developed countries, such as the UK and other European countries (Panayiotopoulosetal.,2007),while studies in developing countries are very rare, as far as the researcher is aware. HRIS in Jordan should be considered as anew IT tool in business originations. However, motivation seems to be one of the most important tools of Human Resource Management. Organizations design motivation systems to encourage employees to achieve in the most effective way but also to gain potential new employees. The key to creating an efficient motivation system is an important question for employees. This study identifies the main factors motivating the use of HRIS applications in companies in Jordan. Moreover, it provides relevant decision-makers with recommendations that may help HR departments to improve their use of HRIS applications. The rationale behind this is to gain abetter understanding of the current status, benefits, and barriers to implementation of HRIS in developing countries. To the best of the author's knowledge, this study is the only one that has implemented to understand the implementation of HRIS in the Jordanian environment. Furthermore, as will be shown in the literature review, the current body of research on HRIS implementation focuses largely on the developed world. This study will extend the scope of the literature by examining Jordan, as developingcountry.

2. Research questions

1- Does motivating HR professionals have affect on acceptance of HRIS?
2- What should an organization do to solve problems associated with the implementation of HRIS?

3. Research objectives

1- To discover whether motivating HR professionals has an effect on the acceptance of HRIS.
2- To suggest an alternative method for solving problems associated with the implementation of HRIS.

4. Literature review

The Human Resource Information System (HRIS) is used to gain and maintain the data that manage human resources, transforming data into information and then reporting the information to the employee (Ngai et al, 2008). The use of a HRIS would reduce HR operation cost by helping employees to manage their personal information; and by allowing managers to possess relevant information and data, conduct analysis, decide, and communicate with others without comeback for   HR professionals (Awazu&Desouza, 2003; Ball, 2001). Unfortunately some developed and developing countries do not benefit very well from HR information systems. The study of Krishnan and Singh (2006) explored the issues and barriers faced by some Indian organizations in implementing and managing HRIS. They found two important issues; lack of knowledge within the HR department about HRIS, and lack of importance of the HR department. Further, Batool et al. (2012) concluded that HRIS causes some challenges, such as lack of expertise, technical problems, lack of funds, and time consumption by the untrained employee. In addition, Yin, (2003) and Youndt et al , (1996) tried to determine the challenges of implementing HRIS. Their findings included a tendency to underestimate the complexity of the HRIS and its impact on the behaviour and processes of the organization. The barrier to user acceptance of the HRIS and the consequent underestimation of the importance of change management is considered behind the effective implementation of HRIS in business.

The majority of studies focus on the importance of motivating factors among employees. There are not many researches that investigate factors that might motivate the HR professional to join the workforce in the future. Lim et al , 2008 found that recruiting employees who have information technology skills may affect their attitude towards HRIS. Therefore, asking HR professionals about factors that will motivate them at work in the future makes sense and will be the subject of investigation in the empirical part of this paper.

In addition Sadiq,U et al (2012) conclude that there are many reasons behind not utilizing HRIS from the employees' point of view, the, first one being that HRIS workers do not have enough skills to focus on HRIS usage. Secondly, training needs for employees and managers for all staff are ignored in those organizations. Finally the training needs assessment forms have not been properly developed by strategic levels. In order to face those issues, organizations must focus on training courses to increase knowledge for employees, and show strengths and weaknesses in dealing properly with HRIS usage.

5. Research model and hypotheses formulation

This part will discuss variables of Research models which consist of motivation, training and HRIS acceptance. In addition the hypotheses formulation will be discussed.
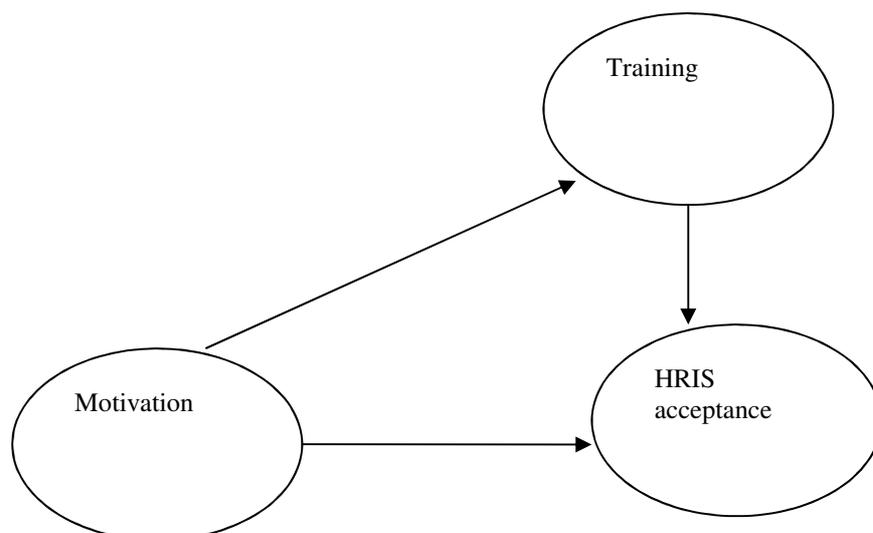
Figure 1: Research model

H 1: Motivation will have a significant impact on HRIS acceptance

H2: Motivation will have a significant impact on Training

H3: Training will have a significant impact on HRIS acceptance

H4: Training will have a mediating effect on the relationship between motivation and HRIS acceptance.

6. Research Methodology
6.1Sampling Technique and Sample Size

Primary data were collected through questionnaires to HR executives engaged in the selected companies operating in different industries in Jordan. A questionnaire comprising of different aspects of HRIS was used to collect data related to HRIS (see Table 1). The study followed a purposive sampling technique to select the sample companies, considering time, cost, distance and other constraints. Considering different barriers and constraints, the study covered 15 companies working in different industries. The sample companies are: BadrAdduja Arts & Crafts- Iraq Al Ameer Women Association-Alliance Chocolate Manufacturing CO-AboOdeh- jo cosultency- Ahmad Abu Dabour& Brothers- United Flavors& Fragrances Co Ltd- Al Toor For Olive Products-Allazeeza Investment & Trading Ltd- Al Khayyam Oriental Bazaar Co- pilot yazanaranki charity association- Bloom- Alia Specialized Industries Co- Green Fields Factory for Oils-Abed alrhmanalffouri sweets and Alamieh Chocolate Manufacturer co.

Table1: Reliability Coefficient for Multiple Items (n = 15)

Variable name	No. of items	Cronbach's Alpha Pilot/30
Motivation	5	.88
HRIS acceptance	6	.72
Training	6	.82

Measures for the research constructs used in the study were developed by borrowing and adapting established measures from prior literature. Most of the items were measured using a 7-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. The factors in our research model comprise three constructs. HRIS acceptance was assessed using six items, These items were adapted from Sadiq et al, (2012). Motivation was

assessed using five items, and six items used to capture Training were adapted from Al-Tarawneh&Tarawneh (2012). A list of measures used in this study is provided in Table 2. Before conducting the survey, we pre-tested the survey instrument with three academic experts. The survey instrument was iteratively refined based on the assessment obtained.

Table 2: The Research Questionnaire's Items

Constructs	Items
HRIS acceptance (HA)	Our HRIS has made our HR decision-making more effective.
	The information generated from our HRIS helps our institution decide on employee raises.
	The information generated from our HRIS helps our institution decide when to hire.
	The information generated from our HRIS helps our institution make better decisions in choosing better people.
	The information generated from our HRIS helps our institution decide when training and skill development are necessary
	The information generated from our HRIS helps our institution to make more effective promotion decisions.
Motivation (MV)	The salary that I get suits the amount of work I do
	The workers who make distinguished effort in their performance are rewarded
	The measurement of performance and rewards systems encourages workers to work in groups
	Salaries in the organization are considered to be higher in comparison with other organizations
	Rewards and stimuli suit the reasonable living demands
Training (TR)	Training leads to an increase in the level of production and improvements which lead to an increase in the competency of the organization's performance
	Training leads to an increase in the skills and experiences which in turn leads to increase in the organization's performance competency
	Training leads to ware the employees and helps them to search and develop which leads to increased efficiency of the organization.
	Training leads to flexibility in work which leads to an increase in the competency of the organization's performance
	The training programs offered in the organizationare considered sufficient to increase the organization's performance
	Training covers real shortages with respect to skills that should be acquired

6.2General Demographic Analysis for the Sample

This part provides more details of the characteristics of the samples. Initially, the survey instrument used in this study was questionnaires made up of several parts including covering letters. These questionnaires were distributed to a total of 15 HRIS managers from 15Jordanian companies, and all 15 survey questionnaires were returned. Of the total 15 respondents from the sample, just over half were male. Their average age was calculated to be 41 years, and they had on average two years of experience in their positions. In addition, regarding the education level of the respondents, 1% had PhD, 20% had a masters degree, and 79% were bachelor degree holders.

6.3Data analysis and Results

6.3.1Test of Multivariate Assumptions in SEM

This part investigates all the data for the assumptions of multivariate analysis in terms of normality, linearity, and multicollinearity.Normality is used to show the symmetrical curve which has the greatest frequency of scores in the middle and smaller frequencies towards the extremes (Pallant, 2005). However, after careful assessment of the skewness and kurtosis, the data were found to be normally distributed. Indeed, most of the values were in conformity with the requirements of normality (i.e., -3.0 to +3.0). Also the recommended test for outliers is to convert the data to standardized scores of greater than 2.5 for small samples and greater than 3 or 4 for large sample sizes (Haire et al., 1998). However, based on the above recommendations, and after careful examinations, no noticeable outliers were found from the 15 valid cases. Moreover Kline (1998) stressed that multicollinearity occurs when a high correlation between independent variables exists in a regression model. As a result the tolerance value is found to be less than 0.10 and a VIF value is found to be above 10. Indeed, both these values were within the acceptable ranges. Consequently, it can be concluded that the assumption of multicollinearity was not challenged.

6.3.2Assessment of Measurement Model

In order to have statistical influence in the model fitness to the dataset, Maximum Likelihood Estimation (ML) is suitable in SEM for several reasons. Firstly, ML is a widely-used estimation method, especially with limited sample sizes (Anderson and Gerbing,1988). Also, it is applied to estimate all model parameters simultaneously (Kline, 2011). The x2/df ratio is also considered as one of the indices that requires three or less values for an acceptable model (Kline, 2011).In this case, the smaller the value of the ratio, the better the fit. However, some researchers (e.g., James *et al.*,1982) recommended the ratio to be between 2 and 5 (James et al,1982). Furthermore, if the AGFI, GFI, NFI, IFI, TLI and CFI values are from 0.80 to 0.90, they are considered acceptable (Bentler and Bonett, 1980). RMSEA value takes the goodness-of-fit of the model into account. The accepted values should range between 0.05 and 0.08 (Hair, 1976). Accordingly, the result confirmed that the measurement model fits with the data collected (see Table 3).

Table 3 : Measurement Model Fit Indices

Model	X²	Df	P	x²/df	IFI	TLI	CFI	GFI	AGFI	NFI	RMSEA
Initial Model	2633.2	534	0.000	4.93	.612	.655	.623	.65	.74	.77	.123
Structural model	662.123	221	0.000	2.99	.833	.84	.87	.82	.86	.81	.07
Minimum recommended value			0.000	1				.80			0.05

Table 4: Properties of the Measurement Model

Constructs and Indicators	Standard Loading	Cronbach's Alpha	Composite reliability	AVE
Motivation		.80	.91	.84
MV1	.721			
MV2	.811			
MV3	.644			
MV4	.665			
Training		.93	.86	.88
TR2	.721			
TR3	.585			
TR4	.727			
TR5	.632			
TR6	.721			
HRIS acceptance		.76	.81	.76
HA1	.641			
HA2	.613			
HA5	.512			

In addition Table 4 above discusses convergent validity and discriminant validity.

Some researchers (e.g., Schwab, 1980) argued that convergent validity is established when the factor loadings are significant (Schwab, 1980) As shown in Table 4, the researchers examined the standardized regression weights for the research's indicators and found that some indicators had a low loading towards the latent variables (*i.e.* less than 0.50, which is the criterion value recommended by Newkirk and Lederer, 2006). In particular (MV5 = 0.312, TR1 = 0.273, HA3 = 0.462, HA4 = 0.264). Moreover, since all of these items did not meet the minimum recommended value of factor loadings of 0.50 (Newkirk and Lederer, 2006), they were all removed and excluded from further analysis. Moreover, the correlations among the research constructs could be used to measure discriminant validity by examining if there are any extremely large correlations among them. Presence of such extremely large correlations implies that the models have a problem of discriminant validity. In addition, if the AVE for each construct exceeds the squared correlation between that construct and any other constructs, then discriminant validity occurs (Fronell and Larcker, 1981). Furthermore, Fronell and Larcker's (1981) formula of calculating the average variance extracted of a latent construct, this study showed that all the constructs explained 50 percent or more of the variance, and ranged from0.76 to 0.88, which met the recommendation that AVE values should be at least 0.50 for each construct (Bagozzi and Yi, 1988).Table 5 below also discuss the proposed theoretical model. In this table some hypotheses are supported and some hypotheses are not supported.

Table 5: Summary of Proposed Results for the Theoretical Model

Research proposed paths	t- value (CR)	Coefficient value (Std.estim)	P – value	Empirical Evidence
HA ⟵ MV	.121	.023	.005	Supported
TR ⟵ MV	2.330	.211	.621	Not Supported
HA ⟵ TR	2.615	.213	.007	Supported

Motivation has a significant positive impact on HRIS acceptance (β =.023 , C.R = .121 , P= .005) indicating that H1 is supported. Motivation has insignificant positive impact on Training (β =.211 , C.R = 2.330 ; P= .621) indicating that H2 is not supported. Training has a significant positive impact on HRIS acceptance (β =.213, C.R = 2.615 , P= .007) indicating that H3 is also supported.

However for this study, the researcher tested the mediating effects of training in the relationship between Motivation and HRIS acceptance as shown in Table 6. The significant result of empirical finding (direct effect .021 less than indirect effect .051) confirmed that Training does mediate the relationship between Motivation and HRIS acceptance. To conclude, this finding does support H 4.

Table 6: Result of Training As a Mediating Effect

Hypothesis	From	Mediation	To	Direct effect	Indirect effect	Total Effect	Mediating
H4	MV	TR	HA	.021	.051	.072	Mediating

6.3.3Discussion and Conclusion

This study revealed that motivation has significant influence on HRIS acceptance as shown in hypotheses H1. This is to say the firms that prioritise motivation have greater ability to enhance their HRIS acceptance. In addition the element of training is an important focus in the fields of MIS and management. The principal finding of the survey as shown in hypotheses H3 was that the existence of training in Jordanian organizations has a positive significant effect on HRIS acceptance. Also this study revealed the insignificant relationship between motivation and training as shown in hypothesis H2. Furthermore this research showed that training has a mediating effect on the relationship between motivation and HRIS acceptance, as shown in hypothesis H4. Thus, increased training with HRIS managers directly enhances the capability offered by Jordanian organizations, and consequently helps to promote HRIS acceptance.

This research shows several important implications for the HR managers of the responding companies. These include making employees more aware of the importance of IT in HR related activities. In addition, HR executives may be able to focus on the effective implementation of HRIS with the help of the results of this research, which include motivation and training. Moreover this study will help HR professionals to formulate different strategies related to HR.

The findings of this research may be helpful for the HR executives considering the issues that hinder the effective execution of this technology in the functions of HRM. However, the human resources information system should exceed its traditional role in the procedure of selecting and assigning the new human resources to work in the organization. Moreover, this study is the first investigation of HRIS use in Jordan, and hence can be useful for all HR managers within the country. The study offers both encouraging statistics about the potential for HRIS use in Jordanian various types of organization, and also provides specific guidance as to which aspects of HRIS companies may benefit from emphasizing. Specifically, the aspects of HRIS that are seen as most beneficial are not currently those that are most widely utilized. The study also represents one of the first studies of HRIS adoption in the developing world, which forms a useful comparison to HRIS practice in developed countries.

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