

Electronic Human Resource Management and Healthcare - A Move towards Going Paperless

Sumaiya Khatoon*

Healthcare service like any other service sector is governed by people, where people are the main providers and seekers of the services. Regardless of this, there is a very thin line that separates the healthcare service from the normal service sector i.e. the lives of the people. Hence the healthcare sector is responsible for handling the lives of millions of people. Therefore, use of technology based applications that will save even a second is very crucial. HR is one area in healthcare that is highly crowded, as healthcare industry is people driven. Using hr applications that enhance the speed of work and bring in efficiency is the need of the day. Thus knowledge and understanding of the extent of use of such electronic Hr applications and their effect in healthcare services is studied. The overall effect of e-Hrm in healthcare has been dealt with by the means of questionnaire administered on HR heads and executives.

Keywords: e-HRM, perceived usefulness, perceived ease of use, operational efficiency

Objective:

1. To find out if the relation between ease of use, perceived usefulness and operational efficiency of e-HRM use.
2. To find out if there is any correlation between ease of use and operational efficiency of e-HRM.
3. To find out if there is any correlation between perceived usefulness and operational efficiency of e-HRM.

Introduction

Human resource management (HRM) using information and communication technologies (ICTs) are becoming an increasingly important phenomenon commonly referred to as e-HRM. HR is transforming today and that is the result of the changes taking place within the organisation. The expansion of information technology, globalization, intellectual capital and other external events are expanding the scope of organisations. Thus firms are facing pressure where they have to be more flexible and robust in giving the right response to such changing events. HR departments being the epicentre of these changes are facing pressure and priorities that are transforming the traditional practices and providing catalyst for organisational innovation (Kemske, 1998). Academic involvement in e-HRM is very new, and still trying to catch up with the practice of using it in organisations. Though the literature is now growing, it is still in the 'youth phase' (Ruel, J.M.Huub., Bondarouk, V. T. and Velde, M. V. D, 2006).

E-HRM can be defined as a way of implementing HRM strategies, policies and practices in organisations through the conscious and direct support of web based technologies. It implies using e-HR applications for performing of everyday HR tasks (Ruel et al., 2002, 2004). Automating HR tasks and practices is transforming

the traditional paper-and-pencil, labour-intensive HR tasks, into efficient, fast-response activities that enable companies to anticipate and profit from environmental shifts to create a much needed competitive advantage (Marler, 2006; Watson Wyatt, 2002). The integration of ICT's in HR department is expected to reduce the administrative burden and remove the shackles that hamper the development of HR and its involvement in organisational development and success (Lengnick-Hall and Moritz, 2003).

Literature review

"Technological optimistic voices want us to believe that, from a technical perspective, the IT possibilities for HRM are endless: in principal all HR processes can be supported by IT. E-HRM is the relatively new term for this IT supported HRM, especially through the use of web technology" (Ruel et al.; 2004).

HR practitioners have recently been expected to be both efficient administrators of the employment relationship and to act as a strategic partner to the business. Use of e-HRM may be one way of achieving these dual aims as technology can both improve the efficiency of HR processes and help the HR function to become more strategic by freeing up time from the burden of administration and by providing reliable information on which to make strategic decisions. Like all professions, Human Resource Management (HRM) has been increasingly affected by the ongoing emergence of new technologies.

* Research scholar, Aligarh Muslim University, Aligarh.
Email ID: sumaiyakhatoon18@yahoo.com

Voermans & Vanvendhoven (Voermans, 2006) have mentioned that the "combination of the need to work more efficiently on one hand and the possibilities of current information & communication technology on the other, have resulted in swift development of e-HR system (Stanton and Covert, 2004 ; Hetcher ,2005). In TAM model they found two mutually related factors that formed the basis for the attitude towards IT: experienced ease of use and experienced usability for model on HR. The model described by Ulrich(1997) is the most prominent model for HR role model that derives 4 HR models from two dimensions i.e. people vs. process & strategy vs. operations.

Panayotopoulou, Vakola, & Galanki (2005) have defined e-HR as to conducting business transactions (in particular HRM) using internet along with other technologies (Lengnick -Hall & Moritz, 2003). Three forms or levels of e-HR have been defined (Lengneck -Hall & Moritz, 2003, Walker 2001) depending on primary focus on e-HR.

1. Publishing of information
2. Automation of transaction
3. Transformation of Hr function

J.M. Ruel, Bondarouk, Velde define e-HRM as a way of implementing HRM strategies, policies and practices in organisations through a conscious and directed support of, and/or with the full use of, web-technology-based channels. e-HRM, therefore, is a concept – a way of "doing" HRM (Ruel et al., 2002, 2004). Empirical research that treats e-HRM as a complete approach for "doing HRM" through implementing business resource planning software, as in Peoplesoft and SAP HR, is still in its infancy.

Alfred J Walker (2001), states that if HR technology is to be considered successful, it must change the work performed by the Human Resources personnel by dramatically improving their level of service, allowing more time for work of higher value, and reducing their costs.

According to Biswanath Ghosh (2002), in an organisation the most valuable input is the human element. The success or failure of an organisation depends to a large extent on the persons who manage and run the organisation. In business the greatest asset is the human resource of the enterprise and not the plant, equipment or the big buildings it owns. There was a time when manpower was considered as a cost factor but not it is recognized as an investment. The e-HRM can range from basic personnel records to sophisticated networks of sub-systems with definite purposes.

Types of e-HRM

Lepak and Snell (1998) make division of e-HRM as followings;

Operational e-HRM: The first area, operational e-HRM, concerns the basic HR activities in the administrative area.

Relational e-HRM: The second area, relational e-HRM, concerns more advanced HRM activities. The emphasis here is not on administering, but on HR tools that support basic business processes such as recruiting and the selection of new personnel, training, performance management and rewards.

Transformational e-HRM: Transformational e-HRM, the third area, concerns HRM activities with a strategic character. Here we are talking about activities regarding organizational change processes, strategic re-orientation, strategic competence management, and strategic knowledge management.

e-HRM is not a specific stage in the development of HRM, but a choice for an approach to HRM. Wright and Dyer (2000) distinguish three areas of HRM where organizations can choose to 'offer' HR services face-to-face or through an electronic means: transactional HRM, traditional HRM, and transformational HRM.

These three areas can also be observed in practice. In some organisations, the HRM emphasis is more on administration and registration, some others focus on the application of operational HRM applications.

Technology Acceptance model

The technology acceptance model is an influential extension of Ajzen and Fishbein's theory of reasoned action (TRA). It was introduced and developed by Fred Davis in 1986 (Davis et al., 1989). TAM is a model derived from a theory that addresses the issue of how users come to accept and use a technology. The model suggests that when users are presented with, for instance, a new software package, a number of variables influence their decisions about how and when they will use it. There are two specific variables, perceived usefulness and perceived ease of use, which are hypothesized to be fundamental determinants of user acceptance. (Davis and Arbor, 1989).

The technology acceptance model specifies the causal relationships between forecasting and evaluating user acceptance of information technology.

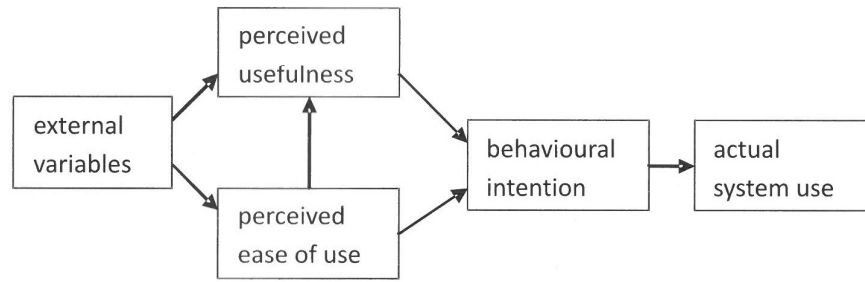


Figure 1: The Technology Acceptance Model

The Research model

In this study, we will test one main hypothesis: that the use of e-HRM

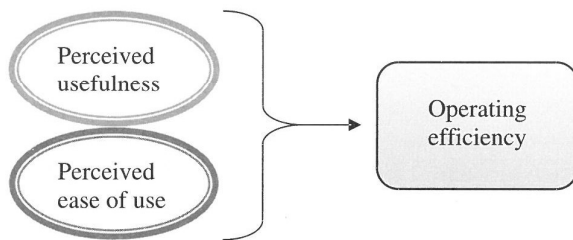


Figure 1: Research model

The research model used in this paper aims at getting the main idea as to whether using e-HRM has in any way improved the operating efficiency of the HR employees. Technology acceptance model has used perceived usefulness and perceived ease of use as constructs for finding out the actual use of e-HRM. Using these two constructs here in this model we will find out one of the expected goals of using e-HRM.

Inspired by the concept of technology acceptance model, usefulness and ease of use, we also incorporate the operational variables for giving a clear picture of the resultant efficiency and use.

After assembling the ideas into a visual model as shown in fig1 we draw specific hypothesis:

Ho1: There is no positive relation between perceived ease of use of e-HRM and the operating efficiency of HR employees.

Ho2: There is no positive relation between perceived use of e-HRM and the operating efficiency of HR employees.

Research Methodology

This article presents the result of quantitative study. The research is a descriptive research since the information needed was clearly defined. As a result the study was pre-planned with a structured questionnaire.

The research site or the sample size is 33 HR employees in private hospitals in New Delhi, India. The reason for taking only private hospitals and not the government ones was because of the lack of IT infrastructure of government hospitals in India.

Method of data collection

Data for this study has been collected with the help of questionnaire designed by me. The scale was ranked from strongly disagree to strongly agree on the five point Likert type scale.

The study was conducted on the HR employees of private hospitals. The questionnaire consisted of three constructs i.e. perceived usefulness, perceived ease of use and operational variables.

Perceived usefulness consisted of 'six' items, ease of use had 'six' items under it and there were 'four' operational variables.

S.No	Constructs	Meaning
1.	Perceived usefulness	The extent to which a user has belief that using e-HRM would improve his/her job.
2.	Perceived ease of use	The extent to which a user of an e-HRM application finds the application effortless, straightforward in its operation and interaction (Ruel, H. J. M., Bondarouk, T. V. and Velde, M. V. D., 2006., Mathieson, 1991).

Validity and Reliability

The questionnaire was designed personally after interaction with people from retail industry, faculty at the department and discussions with friends. The questionnaire was further sent to experts for content validity. These aided in designing a valid questionnaire that could be implemented in private hospitals in New Delhi. Cronbach's alpha/ coefficient alpha, which indicates the level of internal consistency reliability of the variables of questionnaire was also done. The alpha value for all items in total came out to be '.816'. The value of Cronbach's alpha is greater than 0.7 indicating good internal consistency.

Tools used data analysis

Bi-variate correlation was carried out to check the relationship between the various factors to operational efficiency. All analysis has been done on SPSS 16.0.

The correlation table shows the correlation in which operational efficiency is taken as a dependent variable. Ease of use of e-HRM and perceived usefulness show the relation. Since the correlation is significant at 0.05 level, the results can be interpreted as follows:

The correlation matrix (Table 1) shows that both the factors are correlated with operating efficiency. The results clearly show that both, perceived ease of use and perceived usefulness are positively correlated with operating efficiency. This means that if the employees perceive an e-HRM application easy to use and effortless, their operating efficiency will increase. Similarly, if the e-HRM application has an effect on improving the job of the employees, it would increase their efficiency.

Table 1: Correlation

		Organisational efficiency	Ease of use	Perceived usefulness
Organisational efficiency	Pearson correlation	1		
	Sig (2-tailed)			
	N	33		
Ease of use	Pearson correlation	.380*	1	
	Sig (2-tailed)	.029		
	N	33	33	
Perceived usefulness	Pearson correlation	.115	.551**	1
	Sig (2-tailed)	.523	.001	
	N	33	33	33

*correlation is significant at the 0.05 level (2-tailed)

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

1. There is a positive relation between perceived ease of use of e-HRM and operating efficiency of HR employees.
2. There is a positive relation between perceived usefulness of e-HRM and operating efficiency of HR employees.

Hypothesis	Result
Ho1	Rejected
Ho2	Rejected

Limitation

The present research has limitations that should be noted. From an empirical perspective, the study

was carried on a small sample so the results of the study cannot be generalized on the entire healthcare industry. This limits our ability to interpret our results.

Another limitation is that I've not been able to apply technology acceptance model in its real form. All the variables in TAM model haven't been used. Therefore; this study can be done on a broader scale in future.

Last limitation that I noted was that I was unable to find the exact percentage of increase in organisational efficiency. Since the sample size was limited other tools of analysis couldn't be applied.

Conclusion

In this article I tried to find out the relation between efficiency of using an e-HRM application, perceived usefulness and ease of use. In this I aimed at taking a first tentative step towards collecting a broader base of evidence to support or refute this.

The results show that one's operating efficiency of using an e-HRM application is positively related with perceived usefulness and ease of use of e-HRM application. This is consistent with the findings that also show that e-HRM is mostly directed towards cost reductions and efficiency increases in HR services, rather than aiming to improve strategic orientation of HRM. (Gardner et al. 2003; Ruel et al. 2004; Ruta, 2005).

While more research needs to be conducted in this field, this study provides an intriguing starting point for researchers interested in the concept of e-HRM and subsequently its effect on the healthcare sector.

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