

How Electronic HR Optimizes the Human Resources Management and Its Impact on Present Competitive Scenario

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1. Abstract

Electronic human resource management (E-HR) has been a vital point of the enterprise management and competition, thus the electronic human resource management system has engrossed a number of attentions, this paper contends the characters of traditional human resource management and e-HR, and comparison between the two types of human resource management from features such as: quality, speed, flexibility, dependability, and cost. Also, E-HR can support the quality, speed, flexibility, and dependability of human resource management; furthermore, it can lessening the cost of human resource management. In the observations, E-HR is the reformation of process of the human resource management; it helps to save the cost for organization and increase the effectiveness.

Keywords: Electronic human resource management, E-HR

2. Introduction

The Human Resources (HR) function has always been on the forefront of integrating technology in organisations. In fact, one of the earliest business processes to be automated in organisations was payroll administration. Since

then, HR has continued to merge new technology with old processes. For example, most organisations use computers to maintain their employee records. These human resource information systems (HRIS) increase administrative efficiency and produce reports that have the potential to improve decision making.

Considering the development of technology and the importance of the human resource, managers realize that human resource is valuable, rare, inimitable, and non-substitutable, E-HR has been a key point of the enterprise management and competition, so the electronic human resource management system has attracted a number of attentions. Even though the E-HR is a large investment for organization, it can save the cost for organization and increase the effectiveness (Lego, 2001).

What's e-HR? it is a system to create a real-time, information-based, self-service, interactive work environment (Lengnick-Hall & Moritz, 2003), and it refers to complete the

human resource management practice with the advantage of computer-based technologies (Gainey & Klaas, 2003). With E-HR managers can access relevant information and data, and perform other tasks.

2.1 Problem statement

In 21st century, human beings are accelerating the speed to the information society, it is important to identify the challenges associated with the implementation and some recommendations for enhancing the effectiveness of e-HRM systems in organisations.

2.2 Research aim

This research essay aims to understand how E-HR optimizes the human resource management (HRM) process.

2.3 Research objectives

- To explore the differences between traditional HRM and E-HR.
- To analyse the impact of E-HR on professional competence in HRM.
- To explore the usage of up to date HR software and suggest on development of E-HR.

3. Literature Review

The HRM practice will have important impact on organizational effectiveness and innovativeness for several reasons. First, HR planning involves analysing personnel demand and selecting qualified people in order to achieve organizational goals. To enhance innovativeness, HR planning recruits the right

people with high creativity and establishes venture teams that develop and introduce new products effectively.

Second, since the innovation process is often long and uncertain, effective appraising and rewarding systems should emphasize risk taking and profits through innovation. Finally, career management in an innovative firm should create a match between employees' and organizational long-term goals (Lawler and Mohrman 2003). Careers of all organizational members can be well managed by empowering them, through continuing education and training programs.

In innovation-oriented firms, HRM practice must pursue innovation-enhancing HR policy that may differ from traditional HRM practice (Ulrich, 1997). E-HRM is increasingly important within working organisations owing to its potential advantages including reducing cost, improving quality, and speeding up processes (Strohmeier, 2009). The term e-HR was first used in the 1990's and refers to conducting Human Resource Management "transactions" using the internet or an internet (Lengnick-Hall & Moritz, 2003).

E-HR aims at making information available to managers and employees at anytime and anywhere. Currently, an e-HR system may include enterprise resource planning software (ERP), HR service centres, interactive voice response, manager and employee portals and web applications. So, a modern e-HR system allows employees to control their own personal information by updating records and making

decisions, and allows managers to access information and data, conduct analyses, make decisions, and communicate with others, without consulting the HR department.

3.1 The Relationship between Traditional HRM and Electronic HR

Figure 1 is the model of the traditional human resource management in organization A, the characters of traditional human resource management has four aspects as follows: The functions of HRM are separated and high dependent, one's work report and result will submit to HR manager and the specialist in next process. For example, specialist D who is in charge of compensation management is high dependent for the work of the specialist C who is responsible for the performance appraisal.

When the specialist C completes his work, his work report and data will submit to two people: his supervisor (HR manager) and his co-worker

(Specialist D). The feedback of human resource management is unidirectional. The information flow is from specialist of human resource management to the employees and their supervisors. For example, the specialist B gives his information to the supervisor and employees, however, the information of supervisor and employees are hard to submit to specialists of HRM.

The vertical structure of HRM includes three levels: HR manager, HR specialist, employees or their first-line supervisor. HR manager oversees all the work of HRM, the specialist is responsible for the work of specific activity, the employees are the third level. The HR managers, HR specialist and first-line supervisor represent organization to manage employees, the employee's lack of self-management.

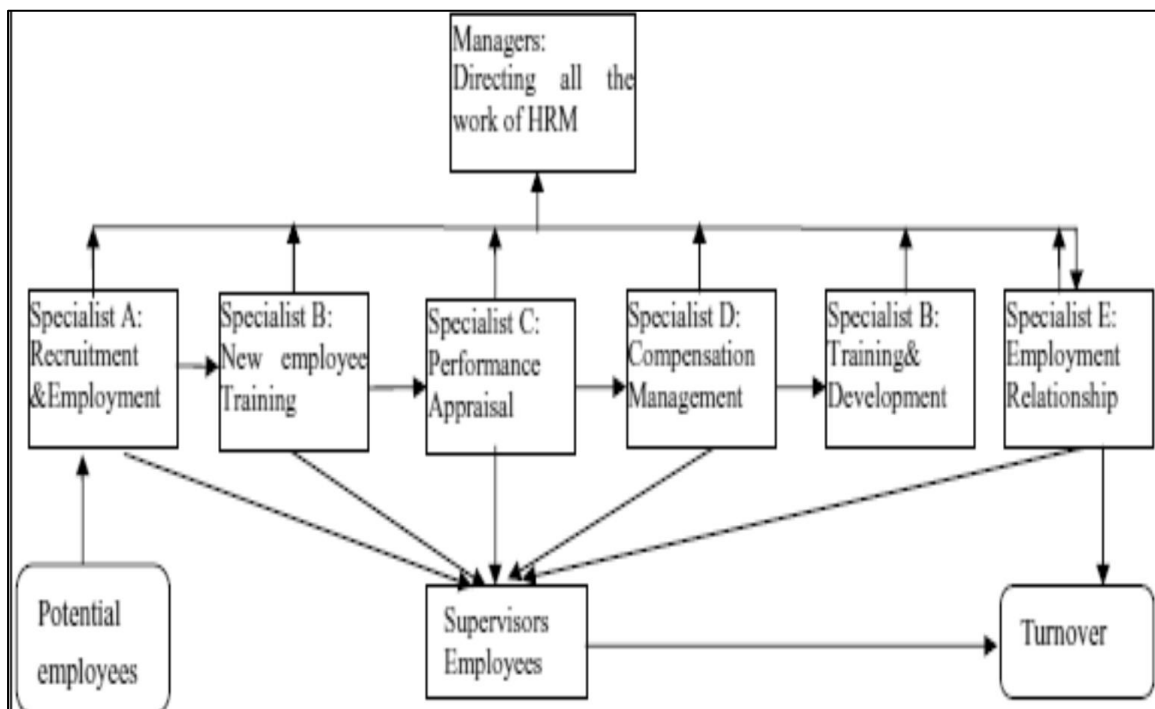


Figure 1: Traditional Human resource management model.

Little attention was paid to exploring the differences between traditional human resource management and E-HR, and there was little literature showed how E-HR optimizes the human resource management process. E-HR is the reconstruction of process of the human resource management, before adopting the E-HR, managers should evaluate human resource processes reengineering, this paper discusses the HR processes reengineering from the operation management perspective.

Figure 2 is the model of E-HR management system, comparing with the traditional human resource management, it has several domains in this system: In the traditional human resource management, the specialists are responsible for the different activities of HRM (e.g. Recruitment & Employment; Training & Development, Career Planning, Performance Appraisal, Compensation Management, Employment Relationship), that means, the

information of traditional human resource management system is separated in different units, the specialist may give feedback to employees about their information, the information flow is sent from specialists to employees or their leaders.

On the contrary, the E-HR system, all information is collected in the database; employees can get their own detail information through their personal account in the system. For the specialists, they can acquire information from the database, and their information will be sent to database, the data of the HRM is two-way flow (from specialist to database and from database to specialist). In the traditional HRM, the process of HRM is following those steps: (a) recruitment & employment; (b) new employee training, (c) performance appraisal, (d) compensation management, (f) employee relationship.

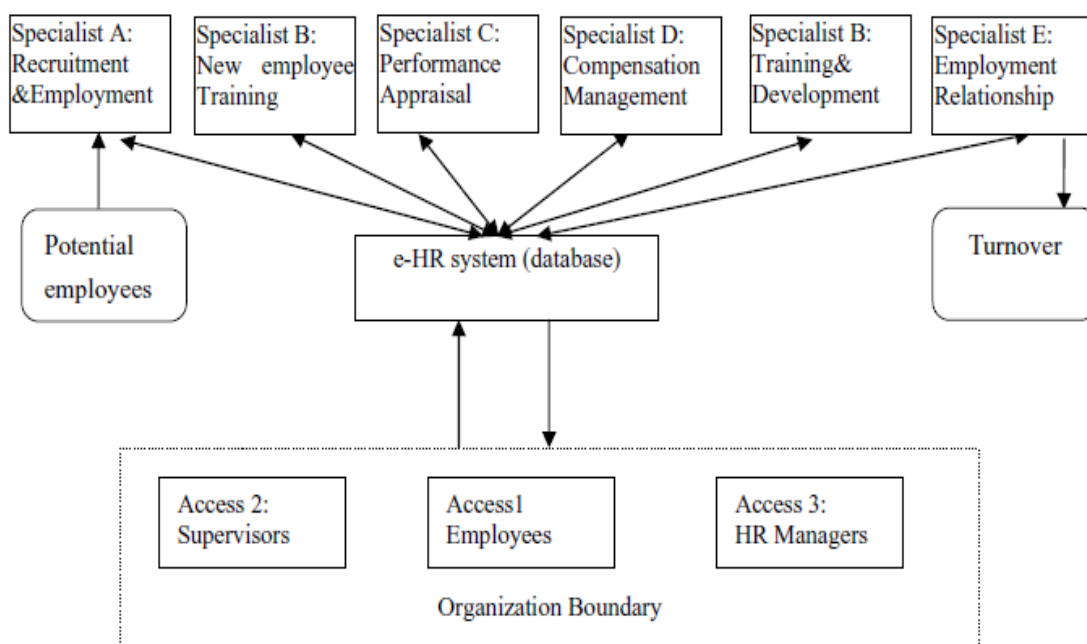


Figure 2: E-HR management model.

However, in the E-HR model, all these processes can be embedded in the E-HR system and can work at the same time. In the traditional HRM, the feedback of information is from the HR specialist to the employees or their leaders, the employees accept their information negatively, but the e-HR system makes the employees seek feedback positively, they can get the information from the employee access that means they can do self-management through the e-HR system.

3.1.1 Features of E-HR

Lengnick-Hall and Moriz (2003) identified three levels of E-HR and the features. The primary level is publishing of information which helps managers to communicate with employees by delivering information through intranet. The second level is automation of transactions with integration of workflow. This combines the intranet and extranet to accomplish integration of different parts of HRM as well as the whole management of the organization. Meanwhile electronic input substitutes for paperwork.

The highest level is transformation of the HR function. E-HR promotes the functions of HRM from operational to strategic level that makes the role of HRM turn to a partner, creator and administration supporter. They also defined that E-HR aims to make information of each HRM functions available to everybody from top executive to line managers and employees at anytime and anywhere. Employees could manage their personal information, training

plan, holiday and some other daily affair, and managers and employees could communicate with each other directly and instantly. These release the burden of HR department and increase management efficiency.

3.1.2 E-hr tools for organizational efficiency and sustainable development

- E- Employee Profile: The E-Employee Profile web application provides a central point of access to the employee contact information and provides a comprehensive employee database solution, simplifying HR management and team building by providing an employee skill, organization chart and even pictures.
- E-Recruitment: Organizations first started using computers as a recruiting tool by advertising jobs on a bulletin board service from which prospective applicants would contact employers. Then some companies began to take e-applications. Today the internet has become a primary means for employers to search for job candidates and for applicants to look for job.
- E-Learning: E-Learning refers to any programme of learning, training or education where electronic devices, applications and processes are used for knowledge creation, management and transfer. E-Learning is a term covering a wide-set of applications and processes, such as web-based learning,

computer-based learning, virtual class room, and digital collaboration.

- E-Performance Management System: A web-based appraisal system can be defined as the system which uses the web (intranet and internet) to effectively evaluate the skills, knowledge and the performance of the employees.

3.2 IMPACT OF E-HR ON HR COMPETENCE

As the latest advanced technologies offer the potential to streamline many HR functions, businesses increasingly are utilizing information technology to design and deliver their HR practices. This trend is not surprising given the substantial benefits that can emerge from integrating information technology into the HR function.

The Cedar Human Resources Self-Service/Portal Survey (2001), for example, revealed that companies using self-service technologies could reduce HR transaction costs by up to 75% and typically recoup costs associated with the technology in less than two years. In addition to costs, many organizations are utilizing electronic human resource (e-HR) systems in an effort to enhance the efficiency and effectiveness of the HR function.

For instance, a recent study by the Institute of Management & Administration (IOMA) found that 70% of companies reported that technology led to improvements in the quality and timeliness of HR services to employees and

67% reported that e-HR has led to improvements in overall organizational efficiency (IOMA, 2002).

With the growth of information technology, much of the administrative aspects of human resource management can be accomplished through technology solutions hosted by the company or outsourced (Lawler & Mohrman, 2003). As technology frees up HR from some of its routine tasks, there is a greater opportunity for HR professionals to become a strategic partner.

3.2.1 Technology expertise

As information technology emerges as a key delivery vehicle for HR services, it becomes increasingly important for HR professionals to demonstrate technology expertise. As Hunter (1999, p. 148) notes, "Because of the ever-broadening scope of information technology, particularly Web-based solutions, varying degrees of technological ability also are generally required." HR professionals need to be able to use HR technology and Web-based channels to deliver services to employees (Brockbank & Ulrich, 2003).

They must be proficient with HRIS and must be able to teach others how to use such systems (Lawson & Limbrick, 1996). Schoonover (2003) suggests that technology expertise also is important for enabling HR professionals to manage technology vendors and ensure seamless delivery of excellent services. Specifically, he notes, "Whether supporting internal technology systems, or dealing with technology providers who provide the service

externally, excelling in technology applications is emerging as a vital competency area for HR professionals.

Finally, HR professionals must be able to use technology to collect data and transform it into strategically valuable information (Lawler & Mohrman, 2003). HR professionals are increasingly being tasked with helping to identify technology needs, managing technology vendors, and mobilizing technologies to support and evaluate the HR function, all of which require technology competence.

3.3 THE HUMAN RESOURCES DEPARTMENT AND THE HRIS

Business, governments, and non-profit organizations around the world rely on human resource information systems (HRIS) to facilitate information sharing as well as facilitate downsizing and reengineering efforts. The human resource information system, also called the human resources management system (HRMS), refers to a systematic procedure for collecting, storing, maintaining, retrieving, and validating data needed by an organization about its human resources, personnel activities, and organization unit characteristics

Human resource information systems help human resource professionals achieve human resource objectives. For example, human resource information systems provide businesses with rapid data access, information exchange, and strategic advantage. The human resources department is responsible for

employee recruiting, training, promoting, terminating, record keeping, and meeting legal and governmental standards and regulations.

An effective human resources department is one of the main factors in developing sustainable competitive advantage in the marketplace (Targowski & Deshpande, 2001). Human resource stakeholders and human resource managers use and rely on the information provided by human resource information systems. Human resource systems tend to be comprehensive and integrated with the planning, staffing, and development goals and objectives of their organization.

3.3.1 HRIS Processes

There are three main functional components in any HRIS: Input, data maintenance, and output (Kovach & Cathcart, 1999).

- Input: The input function enters personnel information into the HRIS. Input features may include automated scanning of documents
- Data maintenance: The data maintenance function updates and adds the new data to the database. Electronic data storage is becoming the norm in large organizations.
- Output: The output function processes the input, makes the necessary calculations, and then formats the results in an accessible form for the users.

These three HRIS functions, supported by the Internet and related communication technologies, are increasingly interactive.

3.3.2 HRIS Benefits

HRIS, which requires capital and technical resources to design and implement, is believed to create a competitive advantage for organizations through improved accuracy, the provision of timely and quick access to information, the cost savings, quality/customer satisfaction, and innovation (Ngai & Wat, 2006). HRIS impact the time allocation and work-flow of human resource staff.

For example, HRIS, which eliminates work duplication and streamlines processes, allow human resources staff to spend less time on administrative tasks and more time on strategic decision making and planning. This reallocation of time for human resources staff creates increased efficiency and departmental response time.

HRIS improve business organization's knowledge management and, in turn, increases competitive advantage in the marketplace and stakeholder satisfaction (Targowski & Deshpande, 2001). Ultimately, HRIS data have provided a new tool for managerial decision-making in the human resources arena and organizations-at-large. The management uses this strategic data to make a wide range of decisions from work-related decisions regarding an individual employee to large scale decisions about corporate strategy (Kovach, Hughes, Fagan, & Maggitti, 2002).

3.4 Research questions

1. Does E-HR contribute to the HRM effectiveness and facilitate the corporate performance.

3.5 Limitations

- This study represents an insightful, yet preliminary examination of how the technological transformation of the HR function is reshaping professional competence in the field of HR.
- This exploratory study deals with important determinants of organisational innovation from perspectives of E-HR.

3.6 Future research

It is hoped that the findings can shed light on HRM research area. Based on this study, research is also needed to help managers at all levels to understand the impact technology has on the management of the organisation and HR. Also, studies that develop mechanisms that improve creativity-innovation transformation processes and develop intervention techniques that improve employee's creativity in virtual organisations should be worthy for future research

3.7 Recommendations for management

In the information era, HR managers should realize characteristics and potential advantages of E-HR. First, there is a focus on business core activities that the virtual organisation does well. Activities other than core activities are done by other organizations. Second, core and non-core

activities are connected via IT tools. Third, virtual teams and flexible structure are more important in virtual than in traditional organizations. Thus, management in organisations should emphasize self-managed teams, multi-function skills, and network orientation, so that HR managers will play more differing roles than before.

3.8 Conclusion

Thinking about the discoveries, it appears that the use of E-HR is extremely restricted. It is uncovered that HR capacities in the associations are not prepared with the change as long as HR experts don't have the great attention to trend setting innovation. Because of the general target of this examination, E-HR improves the nature of the human asset the executives work, by quickening the work speed of the representatives in the human asset office and diminishing holding uptime.

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