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Exploring the outcomes of Electronic Human Resource Management (E-HRM)?

Mine Afacan Fındıklı [a*] , Ebru Beyza Bayarçelik[b]

a,b İstanbul GelişimUniversity, 34315,Turkey

Abstract

In this descriptive study the aim was to explore the perspectives about e-HRM, their perspectives for choosing the applications for the system, their observed organizational outcomes of HR managers in the leading companies in Turkey. The result of the in-depth interviews with HR specialist from service industry, showed that time management, easy acquiring and access to personal data, and reduce administration costs was the primary motivator for electronic human resource applications. E-HRM reduced organizational costs, improved better and faster communication between manger and employees, reduced the processing time for e-HR usage in organizations. However, interviews showed that e-learning/ e-training is not very effective for organizations.

Keywords: E-HRM, Operational E-HRM, Relational E-HRM, Transformational E-HRM, E-HRM Outcomes

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Keywords: E-hrm, qualitative method,interview,service industry

1. Introduction

Nowadays, thanks to globalization and recent developments in the information and communication technology, the world has already became more complex, dynamic and uncertain. Organizations can find themselves in never ending competitions with respect to customers with high expectations in performance, quality and low cost (Nivlouei, 2014). Therefore, under these highly competing market demands they usually seek for novel strategies, which can make them distinctive from their rivals. For this reason human resources became crucial factor in order to achieve their goals (Som, 2008).

Human resources managers, besides their responsibilities such as finding for the right person for the right position, recruitment, improving overall performance of employees, they are assigned with new responsibilities such as responding to increased competition for globally mobile talents, changing in both workforce attitudes and composition, shifting in the employer/worker relationship and additionally adapting rapid advances in technologies for HR process.

* Corresponding author. Tel. + 90-212-615-9215

Email address: mmafacan@gelisim.edu.tr

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Also, an increasing number of researchers state that e-HRM is becoming common and may lead to remarkable changes in the organizational cores (Hopkins & Markham, 2003; Ruël et al., 2004; Strohmeier, 2007; Marler & Fisher, 2010; Dulebohn & Marler, 2005; Ruël & Kaap, 2012; Kaur, 2013, Strohmeier & Kabst, 2014; Nivlouei, 2014). In Turkey, nationwide studies involving the concept and process of e- HRM are not only scares but also not directly related with the applicability in the current market. In this study our aim was to explore the perspectives about e-HRM, their perspectives for choosing the applications for the system, their observed organizational outcomes of HR managers in the leading companies in Turkey. This descriptive study can therefore be regarded as preliminary version of a more comprehensive study, which will involve higher number of organizations.

2. Literature Review And Hypotheses

2.1. What is E-HRM?

Untill 1980s, the "Human Resource Management" (HRM) in the form of "Personnel Management" in a strict sense, involved certain policy formation processes in the working environment including the recruitment, performance appraisal, promotion or assignment, along with work discipline, administration of health issues; identification of fundamental principles; decision making and implementation. Since 2000's HRM in the form of "Strategic Human Resource Management" is considered to be an important strategic partner for the formation of targeted values. Nowadays, with the effective utilization of technology, the organizations transform and rearrange their workflow processes from industrial to informational age (Ensher; Nielson & Grant-Vallone, 2002). Therefore HRM has been subject to the transformational process of electronic human resource management. In parallel to the developments in information technologies, the electronic human resource management (e-HRM) has become a subject within the academic literature since 1995 (Strohmeier, 2007). In addition to e-HRM, it can be seen there are various terms such as virtual HRM (e.g., Lepak & Snell, 1998), web-based HR, business-to- employee (B2E) (e.g., Huang, Jin, & Yang, 2004) ,computer-based human resource management systems (CHRIS) (Ruel; Boundarouk & Looise, 2004; Strohmeier, 2007) which are used for the same phenomenon.

In this vein, Huselid, Jackson and Schuler (1997:171) defined the strategic human resources practices as the design and implementation of a set of internally consistent policies and practices that help to achieve the company targets and supply the human capital. In that respect, the main role of SHRM practices can be identified as the attainment of efficient and effective benefits from the organizations' knowledge and human resource capabilities. Ruel and colleagues (2004) describe e-HRM as a method of implementation of various HRM strategy, policy and practices within organizations by means of mindful and direct support and use of web-based technology channels. E-HRM can be also distinguished as the tion of information technology for supporting and networking at least two (individual and/or collective) actors in their shared performance of HR tasks (Strohmeier , 2007).

2.2. Theoretical Perspectives of E-HRM

When looked at the literature (e.g. Marler & Fisher, 2013; Ruel & Kaap, 2012; Strohmeier, 2007), it can be seen that there is still no grand or integrative multi-level theory of e-HRM. It can be observed that the major theoretical framework of these studies emerges as (1) The contingency theory, (2) The resource-based view theory; (3) Transaction cost theory (4) New institutional theory. Lawrance and Lorsh's (1967) contingency theory stipulates that organizations are influenced by their environment. Therefore, the success of the organization depends on the extent to which it shapes its internal structuring by taking into account the limitations imposed by their environment (Lawrance & Lorsh, 1967). In other words, ıt has to be "fit" between "micro" and "macro" environmental factors or variables and organizational structure in such a way that the ideal outcome is obtained (Ruel & Kaap, 2012:265).

The resource-based view contents that human resources are the most valuable resources of companies in gaining competitive advantage as they are valuable, unique, inimitable, and imperfectly substitutable (Barney, 1991). Following this approach, e-HRM practices such as e-recruiting, e-learning etc. can be seen as activities that help the firm to meet these objectives. Transaction cost theory explains institutional arrangements due to their cost effectiveness. Hence, the complex, partially outsourced, partially decentralized, and partially delegated structures of e-HRM can be explained by their ability to save costs (Lepak & Snell, 1998). In the HRM field, institutional theory has been used to shed light on HRM practices and the factors that influence them (Heikkila, 2013). According to the institutional theory, regardless of

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their relevance to actual performance accomplishment, the organizations should pay attention to the institutional expectations of their environment in addition to responding to the market pressures. Generally, institutionalism offers explanations of the relation between institutional context and configurations of e-HRM and promotes a critical view on its factual consequences (Strohmeier, 2007:29)

2.3. Types of E-HRM

Although different categorizations have been suggested for E- HRM (e.g. Lepak & Snell, 1998; Wright & Dyer, 2000) it is mainly grouped as operational, relational and transformational. Operational e-HRM objectives improve the effectiveness and efficiency of HRM by the automation and support possibilities. Relational e-HRM objectives are aimed at improving the stakeholder relations and service delivery of e-HRM and are concerned with supportive business process by the means of training, recruitment, and performance management. Lastly, transformational e-HRM objectives signify the developments in the business support and strategy orientation of e-HRM such as knowledge management and strategic re-orientation (Strohmeier & Kabst, 2014; Nivlouei, 2014).

2.4. E-HRM Functions

Nowadays, it is observed that HRM functions can be transformed and integrated in digital forms within organizations. In current practices, the most widely used e-HRM functions are: E- HR Planning, acquiring HR (recruitment and selection), developing HR (training and development, career management), rewarding HR (performance evaluation, compensation and benefits), protecting HR (health and safety, employee relations/legal issues).

E-HRM systems offer mechanisms that facilitate the collection, restoring and update of the existing data related to the knowledge, skills, and competences of the organization's employees, and access to the data when required (Hopkins & Markham, 2003: 57-58). E-HRM systems helps to provide a larger candidate pool and more effective recruitment process due to the shortening of the process and reducing of the costs of recruitment (Marchington & Wilkinson, 2005: 174). One of the most crucial factor that increase the efficiency is the training and development of employees. Therefore, e- training and e- learning HR systems are organized as time- place independent manner. The main objective of the use of technology in performance management is to develop individual performances and thus the organization's performance by providing the employees with the necessary knowledge, techniques and methods as well as the support systems (Benson et al., 2002: 398). Computer-based career guidance systems are diagnostic tools that identify and put across the priorities required for the development of employees. Additionally, these systems provide the employees with the facilities to compare the knowledge and skills they hold with the skills and competences required at the present and future positions (Rothwell et al., 2005: 122-124). E-compensation tools facilitate the conduct of bureaucratic duties by the flow of real-time data and knowledge. Besides, electronic charging can be benefited in the maintenance of wage equality (Dulebohn & Marler, 2005: 166-167). By E- Occupational Safety and Health, managers are continuously informed about the effectiveness of the activities aimed at reducing the risks of accidents and encourage re-planning of the works and processes which takes into consideration of the risk of accidents. Additionally, employees might be informed electronically about the specific risks that they might face in the form of personalized information; thus, it might be possible to change the attitudes of the employees without mediation of an expert (Andersen, 2008: 53-54).

2.5. E- HRM Outcomes and Hypotheses

Researchers have reached to general understandings and conclusions based on the outcomes of the e-HRM activities. For instance, Marler and Fisher (2010) argue that HRM investments help reducing the costs by restructuring HRM operations, advancing efficiency by improving the quality of HRM services and transformation of the HRM functions to a strategic business partner. HRM's influence on the efficiency and effectiveness of HRM activities is well captured by Kaur (2013: 37) through reducing the paper work by increasing data precision and also by reducing excess HRM while preserving the quality of HRM's data. Additionally, because e-HRM provides easy access to HR data and facilitates classifying and reclassifying of data, it also entails a more transparent system. Furthermore, it can be deducted that e-HRM facilitates a more positive organizational culture through a higher internal profile for HR. Among the other

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advantages are the integral support it provided for the management of human resources and other basic support processes within the company decentralizing the HR tasks.

On the other hand, Ruel and Kapp (2012) identify e-HRM outcomes within the framework of value creation as efficiency, effectiveness, or service quality. Similarly, Nivlouei (2014: 151) expresess e-HRM outcomes in her work as (1) high workforce commitment, (2) high competence, (3) cost effectiveness, (4) higher congruence. Strohmeier (2007: 21) identifies e-HRM outcomes within the framework of micro-and the macro-levels. While the micro-level outcomes focus on individual impacts such as user satisfaction or acceptance, macro-level outcomes are classified as operational, relational and/or transformational. Operational outcomes are related to the efficiency and effectiveness outcomes of e-HRM like cost reduction or lightening administrative workload. Relational outcomes refer to interaction and network of different actors. The transformational outcomes are motivated by fundamental reorientations of the general scope and the function of HRM which include the capability to contribute to the overall performance of the organization. Thus, the integration of internet technologies into the HRM processes provided the minimization of costs in all functions of HRM including planning, recruitment, learning and training, performance appraisal, career planning, salary system, industrial relations and health and safety systems. In the light of the literature our hypotheses are:

1. H_1: E-HRM for all functions allows to reduce the time spend for HRM process.

2. H_1: E-HRM for all functions allows to reduce administration costs.

3. H_1: E-HRM for all functions allows to improve communication between organization, manger and employees

3. Research Design

Electronic human resource management (E-HRM) is new era for human resource applications in large companies which is dominated by information technologies. Because of this HR practitioners and writers interest in E-HRM has increased, there are many empirical studies represent a variety of contexts, factors and measures of E-HRM. However, there are only few empirical researches related to relation between E-HRM and organizational outcomes like employee commitment, competence and cost effectiveness (Nivloui, 2014). Due to the knowledge on the subject is rather limited and forming, we designed qualitative method with semi structured interviews that conducted using open-ended questions (Hsieh, 2005). In the interview process, 10 questions are used to find out effectiveness of E HRM functions from different views of participants. The interviews were conducted in privacy, and lasted approximately one hour. All of the interviews were conducted by two researchers.

3.1. Study participants

Sixteen human resource specialists, who are working for service industry, were asked to participate in our study. In the sample four of companies were Turkish biggest GSM service providers and the others were also well –known companies from advertisement, banking, health, energy, aviation and retailing services. Eleven of HR specialists were females, whereas five of them were males. Four participants were at the age between 24 and 30; four of them were at the age 31-35; and eight of them were at the age between 36 and 42. All of them had undergraduate or graduate degrees. In terms of years of experience, ten of the specialist had between 1 and 5 years; four of them had between 6 and 10 years and two of HR specialist had between 11 and 15 total years of experience. On the other hand, 10 of the participants indicated that they had been working for the current company for less than five years, whereas 6 of participants of the sample had remained between 6 and 10 years in the present company. Before coding the answers of participants, one company was excluded because of not using any electronic HR applications in functions.

3.2. Data analysis process

Semi-structured interviews were conducted using an interview guide designed specifically for this study, based on a review of the research and methodological literature. Our research questions consisted of reasons underlying to use E-HRM and functions, what are the benefits of electronic HRM, and the changes in organizational outcomes as employee

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commitment, cost effectiveness and competence. After giving informed consent, the participants were asked three main questions. According to answers of question from participant, "all comments were collated and analyzed using the content analysis technique, which is a systematic approach to quantifying the frequency, intensity, and direction of the responses" (Erdoğmuş, 2011).

4. Results

The first question, which served as key point of study, was "which human resource functions does your company doing by electronically?" All of the HR specialist companies' which were participated in our research are using electronic recruitment and selection functions. Except one participant, E-learning and E-compensation functions are the second most using HR function as electronically. The third most using human resource functions are E-training and E-performance, are implemented by 13 participant companies'. The least preferred function is E-career development that only 10 companies are using this function as electronically.

E-HRM functions play a significant role in reducing the organizational costs, increase interaction between managers and employee so as higher commitment to company, greater ease and speed with the availability of human resource information system, enhance productivity through faster processing, better work environment which also encourage employees to learn new tasks and roles, reduction in mistakes or errors as well as in overlapping work (Nivoule, 2014). For this reason we were interested in what are the reasons that companies are using electronic HR functions. So, we posed second question "Why does your company prefer to use E-HRM functions?" A part of the answers are given below:

"Especially for big scale companies, time management is very critical. On the other hand, for organizational memory, it is also very important to collect data base and analyse past data when needed."

"As a HR department the main reason to prefer using electronic HR functions to provide time and work force savings."

"In selection process cost; in training both time and cost, but in compensation mostly cost is the main reasons for usage of E HRM. Hence, all electronic functions are playing facilitator roles and improve access to reach global data."

"E HRM is very practical, easy to archive and long lasting which means very easy to make up dates and revisions. And also human resource data base enable employees reaching reliable information quickly. It is also allowed for better and faster communication between worker, co-worker and manager."

"E HRM provides to create organizational memory, accelerate processes and prevent data loses and also if company uses E HRM in a proper way, it will reduce costs."

"Because of complexity of manual processes in human resource functions, our company prefers electronic human resource functions. However, we could not take expected benefit from electronic training. Although e-learning is easy to use and reachable from every employee, employees do not give necessity importance to online trainings "

"Our job is information technologies so *time* is very important for us. Electronic human resource implementations prevent time losses so as decrease costs. For example; In selection process, hence applicant already fill the application form from online web site, he/she directly taken to interview without time losses. For oversees interviews, we make first interview by skype (online) to eliminate traveling costs and time savings. And also in both e-learning and recruitment, electronic practices gain cost advantages and time savings."

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"We are global company so decrease in time spending as a part of time management, is very valuable for us. Skype and online implementations is gained time, place and cost savings in selection and recruitment process. Consequently, efficiency and effectiveness is increased."

"As a company we have many employees and big organizational structure so E HRM functions are very profitable in terms of time, cost and work force."

"In our company, mostly electronic performance evaluation is using; it helps to reach every performance appraisal data immediately and accurately. But on the other hand e-learning and e-development doesn't gain important benefits so we are still using face to face trainings"

"In electronic human resource, the information is maintained in database and is better organised and easily accessible to relevant staff. Besides, employees reach more information about their company, their commitment start to increase."

"Yes, mostly we prefer online implementations in HR department, so it improves the competence of both managers and employees to make better, quicker decisions; and also reduce administration costs."

According to answers given to the question, Electronic human resource management (E-HRM) is being used in most of the service companies which its applications are considered to be very time effective and cost-effective. The main purpose under using electronic human resource is saving most of the administrative costs, easy access to HR data, create organizational memory, reduction in cycle times for all functions and also effective and faster .E HRM has the potential to influence both efficiency and effectiveness.

Beer and colleagues (1984) defined four outcomes of E-HRM as high commitment, high competence, cost effectiveness and high congruence. In order to find out the outcomes of E HRM, we asked the last question as: "What advantages does E HRM provide for your company?" and give 7 complementary questions about benefits of E HRM.

Seven of HR specialists said that applications are increased new idea generation and innovative projects whereas 8 of them did not believe or not have any idea about that. Also according to 11 participants E HR functions improved better and faster communication among all employees, whereas 4 of them claimed opposite. One specialist said that "employee communication is only comfortable on technological platform." And the other participant added that "E HRM is occurred robotization." However, all 15 participants were agreed that E HRM increased communication between employees and organization. And also they claimed that **automation of human resource processes** would enhance adaptation through communication among all sides. Besides these when asked if there was any reduce in processing time, all 15 of them were positive. One participant put it as "In this system, employees can easily give positive or negative feedback in a short time." Two of them explained that "system provides quicker access to information, reduces many less paper work and decreases unnecessary workforce".

Fourteen of the participant claimed that E HRM reduced organizational costs, only one respondent said that "there is a not big difference in cost reduction". Additionally, when asked "is there any change in degree of commitment", 14 of the participant were also agreed with us. One specialist said that "as result of increasing in motivation, employees are more committee to their organizations". Another participant further explained as "employees respect for the corporate

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image is also increased". Only one participant did not want to comment to our question. Lastly all participants told that an e-HRM strategy should fit with the overall organizational strategies.

5. Discussion and implications for future research

The dynamic changes in the Internet during the last decade have stimulated the implementation and application of Electronic Human Resource Management (e-HRM). In rapidly changing environment, many organizations are trying to adopt E-HRM applications to take sustainable competitive advantage. Ruël, Bondarouk and Looise (2004) explained e-HRM as "a way of implementing HR strategies, policies, and practices in organizations through a conscious and directed support of and/or with the full use of web-technology-based channels". To date, many empirical studies represent a variety of contexts, factors and measures of E-HRM .

The result of the in-depth interviews with Hr specialist from service industry, showed that time management, easy acquiring and access to personal data, and reduce administration costs was the primary motivator for electronic human resource applications. However, improving better and faster communication between manger and employees, reduction in processing time and higher respondents' rates were also very important for e-HR usage in organizations. In e-selection and e-recruitment process seems to be a growing field because of the widespread of usage technologies like skype, web-based tests, videoconferencing and web-based job posting for all kinds of employees. And also companies prefer to use e-selection and e-recruitment to save costs like paper-work, traveling and hotel cost. On the other hand e-learning and e-development explained as application of all kinds of online learning that use IT for distributing of learning content and/or for communication. It is using to save costs for larger groups of employees. However, interviews showed that e-learning is not very effective because employees open online education web sites, only enter to assigned training programs for 15 minute then logout from systems. There was not any improvement or change in needed behaviors.

The results of our research have implications both for further research and development. Our study is preliminary study to understand bases and practical applications of E- human resource management. There are some limitations like limited number of company and respondent; and also participants are chosen from only human resource department, not verified from other departments and the level of management hierarchy. Thus, the results cannot be generalized. Therefore future studies might include a broader perspective from different department employees like research & development and supervisor or first line employees.

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