A Framework of E-HRM concept and its implementation issues in Corporate Sectors

P. Padma Bai[1], C. Ravi Kumar[2], M. Nagaraju[3]

[1,2,3]*Asst Prof, Santhiram Engineering College, Nandyal*

Abstract- **According to Biswanath Ghosh, in any organization the most valuable input is the human element. The success or failure of an organization depends to a large extent on the persons who manage and run the organization, therefore, they need careful management. 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.**

More and more organizations have been replacing face-to-face human resource management activities with electronic human resource management, E-HRM for short. E-HRM facilitates the HR function to create dynamic and operational capabilities and contributes greatly on HRM effectiveness. This article elaborates on E-HRM in detail on the following aspects: Introduction of E-HRM, types of E-HRM, goals and roles of E-HRM, implementation, Evaluation of E-HRM and it is expected to help people understand E-HRM more comprehensively and systematically. Based on the review some initial theoretical and topical implications are discussed in order to support a future research program in e-HRM.

Index Terms- Electronic HRM, Web-based HRM, virtual HRM, Information Technology.

I. INTRODUCTION

Competitive business environments have compelled the organizations to think speedily to innovate and excel for their survival. Technology advancement is one of the powerful driving forces. It has reshaped the way we communicate, live, work and also the way a business is conducted. Corporations need to shift from physical technology to information technology, from capital centered economy to human centered economy, and further from conflict to cooperative working relationships. The change in Information Technology is faster than any other processes in the organization. One of the major hurdles which the HR department needs to cross, is the changing technological environment. The IT possibilities for HRM are endless; in principle all HR processes can be supported by IT. Computers have simplified the task of analyzing vast amounts of data and they can be invaluable aids in HR management, from payroll processing to record retention. With computer hardware, software and databases, organization can keep records and information better as well as retrieve them with greater ease.

E-HRM is the relatively new term for this IT supported HRM, especially through the use of web technology. E-HRM is the new field of technology that is widely spreading in organizations around the world. It aims at transforming the HR functions into one that is paperless, more flexible and resource efficient. With the state of IT, HRM has become more effective through the use of e-HRM technologies.

The processing and transmission of digitalized HR information is called electronic human resource management (E-HRM). E-HRM is the application of IT for HR practices which enables easy interactions within employee and employers. It stores information regarding payroll, employee personal data, performance management, training, recruitment and strategic orientation. Information technology is changing the way HR departments handle record keeping and information sharing. It decreases the paperwork substantially and allows easy access to voluminous data. It uses intranet or other web technology channels. It can also be used for implementation of different HR strategies.

E-HRM has the potential to change the way traditional HRM functions are performed. For e.g. in the analysis and design of work, employees in geographically dispersed locations can work together in virtual teams using videos, e-mail etc. Under recruitment function, job openings can be posted

online, and candidates can apply for jobs online. On compensation and benefits issues, e-HRM will make it easy for employees to review salary and bonus information and seek information about bonus plans

II. DEFINITION of E-HRM

The term E-HRM was coined in the 1990s and refers to conducting HRM activities with the use of the Internet or the Intranet.

Strohmeier (2007) defines E-HRM as the application of information technology for networking and supporting at least two individual or collective actors in their shared performing of HRM activities. E-HRM is a way of implementing HR strategies, policies, and practices in organization through a conscious and direct support of and/or with full use of web-technology based channels.

E-HRM is the integration of all HR systems and activities using the web based technologies. Simply, when HR uses the Internet or related technologies to support their activities, procedures, processes, then it becomes an E-HRM. It embraces e-recruitment and e-learning, the first fields of human resource management to make extensive use of web-based technology.

From this base E-HRM has expanded to embrace the delivery of virtually all HR policies. Within a system of E-HRM, it is possible for line managers to use desktop computers to arrange and conduct appraisals, plan training and development, evaluate labour costs, and examine indicators for turnover and absenteeism. Employees can also use a system of E-HRM to plan their personal development, apply for promotion and new jobs, and access a range of information on HR policy. Systems of E-HRM are increasingly supported by dedicated software produced by private suppliers.

E-HRM is not the same as HRIS (Human resource information system) which refers to ICT systems used within HR departments. Nor is it the same as V-HRM or Virtual HRM - which is defined by Lepak and Snell as "...a network-based structure built on partnerships and typically mediated by information technologies to help the organization acquire, develop, and deploy intellectual capital."

E-HRM is in essence the devolution of HR functions to management and employees. The empowerment of managers and employees to perform certain chosen

HR functions relieves the HR department of these tasks, allowing HR staff to focus less on the operational and more on the strategic elements of HR, and allowing organisations to lower HR department staffing levels as the administrative burden is lightened.

III. TYPES OF E-HRM

Lepak and Snell(1998) distinguished three areas of HRM as, operational HRM, relational HRM and transformational HRM. An organisation may choose to pursue E-HRM policies from any number of these tiers to achieve their HR goals.

A. Operational HRM: e-HRM is concerned with administrative function like payroll, employee personal data, etc. Operational type of HRM provides the choice between asking employees to keep their own personal data up to date through an HR website or to have an administrative force in place to do this.

According to what snell et al. (2001) say, about 60-75% of the workload is related to this type of activities. Regardless of the activities itself and their types, Strohmeier (2007) also considers functions such as e-learning, e-recruitment and e-selection (these activities belong to the relational HRM) to review efficiency and effectiveness outcomes of e-EHRM, namely operational consequences, which were reported by scholars, like reduction of HR staff, faster processes, cost reduction, and a release from administrative burdens resulting from automation (Hawking et al., 2004; Ruël et al., 2004; Ruta, 2005), shifting responsibilities from HR to line managers and employees (Ruël et al., 2004), considerable cost savings from e-recruiting and e-selection, due to reduced employee turnover, reduced staffing costs, and increased hiring efficiency (Buckley et al., 2004).

B. Relational HRM: e-HRM is concerned with supportive business process by the means of training,

recruitment, performance management, and so forth. As to relational HRM, there is the choice between supporting recruitment and selection through a web-based application or using a paper-based approach (through advertisements, paper- based application forms and letters etc.).

Activities which require direct and two-way relationship among HR professionals and internal or external sources can be classified in this type of HRM (e.g., e-recruitment, e-learning, performance appraisal and so on). As Strohmeier (2007) says it refers to interacting and networking of different actors. Also Bondarouk and Ruël (2006) put the emphasize on HR tools that support business processes, not on administration. About 15-30% of HR workload is related to this type of activities (snell et al., 2001).

C. Transformational HRM: e-HRM is concerned with strategic HR activities such as knowledge management, strategic re-orientation, etc. As to transformational HRM, it is possible to create a change-ready workforce through an integrated set of web-based tools that enables the workforce to develop in line with the company's strategic choices or to have paper-based materials.

This is the highest-level and most complex type of activities which has nothing to do with HR routines and transactions. As the highest point of snell et al. (2001)'s triangle this activities tend to be strategic with the same pace of the company's mission and vision, and whereas only about 5-15% of the time is devoted to this part, many companies are trying to make this share bigger by reducing the activities in operational sector (e.g., outsourcing).

IV. E-HRM ACTIVITIES

[1] E-Recruitment: It is also known as online recruiting, is being widely used by companies these days. Through e-recruitment, companies usually hire the candidates using the internet as a medium. The common practice of facilitating the online recruitment is by uploading the recruitment information on the company's official website or hiring the online recruitment websites to serve the purpose. Monster.com, Naukri.com, Timesjob.com are some of the well renowned online recruitment websites.

[2] E-Selection: The HR Department using the online selection process must ensure that each step complies with the procedural requirements via project steps, vendor selection, assessment steps, feedback to the candidates etc. The purpose of E-Selection is to utilize the maximum human capital at a reduced cost and in less time.

[3] E-Performance Management: Many companies make use of web-based technology to evaluate the performance of an individual. This can be done either using the computer monitoring tool, wherein the complete working of an individual can be recorded, or through writing the reviews and generating the feedback on the employee's performance using the web portal.

[4] E-Learning: It means using the internet or organization's intranet to facilitate the training and development programmes for the workforce. Getting the online modules of training, a large number of employees can be covered irrespective of their locations.

[5] E-Compensation: An organization using the compensation management online enables it to gather, store, analyze, and distribute the compensation data or information to anyone at anytime. Also, the individual can access electronically distributed compensation software, analytic tools, from any place in the world.

[6] Thus, with the help of E-HRM, the records of all the employees sitting in different geographical locations can be stored and also the new candidates could be hired from any part of the world.

V. GOALS

E-HRM is seen as offering the potential to improve services to HR department clients (both employees and management), improve efficiency and cost

effectiveness within the HR department, and allow HR to become a strategic partner in achieving organizational goals.

HR functions that e-HRM assist with are the transactional and transformational goals. Transactional goals help reduce costs and transformational goals help the allocation of time improvement for HR professionals so that they may address more strategic issues. To add to this operational benefits have become an outcome of the implementation of e-HRM. E-HRM has increased efficiency and helped businesses reduce their HR staff through reducing costs and increasing the overall speed of different processes. E-HRM also has relational impacts for a business; enabling a company's employees and managers with the ability to access HR information and increase the connectivity of all parts of the company and outside organizations.

The main goals of e-HRM are as followed:
- Improving the strategic orientation of HRM
- Cost reduction/efficiency gains
- Client service improvements/ facilitating management and employees.

VI. OBJECTIVES

E -HRM is designed to achieve the following objectives:
- To offer an adequate, comprehensive and on-going information system about people and jobs at a reasonable cost
- To provide support for future planning and also for policy formulations
- To facilitate monitoring of human resources demand and supply imbalance
- To automate employee related information
- To enable faster response to employee related services and faster HR related decisions and
- To offer data security and personal privacy.

VII. SCOPE OF E-HRM

- A decisive step towards a paperless office
- Higher speed of retrieval and processing of data
- More consistent and higher accuracy of
- information/report generated
- Fast response to answer queries

- A higher internal profile for HR leading to
- better work culture
- More transparency in the system
- Significant reduction of administrative burden
- Adaptability to any client and facilitating management
- Integral support for the management of human resources and all other basic and support processes within the company
- A more dynamic workflow in the business process, productivity and employee satisfaction.

VIII. IMPLEMENTATION OF E-HRM IN CORPORATE LEVEL

There are five main phases in the implementation of the E-HRM business solution.
1. Analysis (Infrastructure): Analyzing the existing infrastructure with regard to quantity of data and classification of business activities.
2. Business processes in the company: After the existing processes have been analyzed, the options for automating these processes in the client's environment are proposed. Finally a project plan is developed based on the model of the processes identified.
   Implementation: After the fundamental analysis of the processes in the work team, individual modules are deployed in the client's environment. With modular design a gradual implementation is possible. Company-specific functionalities are discussed with the client and built upon request.
3. Implementation and Training: A complete knowledge of the components of the solution is a key factor for successful implementation. The entire team of project managers, information technology professionals and human resources specialist are thus involved in user training and implementation.
4. Maintenance: Fast technological development of new modules makes cooperation after the implementation indispensable.

A maintenance contract typically includes:
- Technical support experts available by phone, through e-mail or on-site
- Adaptation of existing modules or development of new ones

- Application software adjustment to changes in the system environment or Operating system
- Functionality improvement and software upgrades in the form of new versions
- Consultation about further development of the system.

IX. ADVANTAGES OF E-HRM

The E-HRM business models are designed for human resources professionals and executive managers who need support to manage the work force, monitor changes and gather the information needed in decision-making. At the same time it enables all employees to participate in the process and keep track of relevant information.

- Collection and store of information regarding the work force, which will act as the basis for strategic decision-making
- Integral support for the management of human resources and all other basic and support processes within the company.
- Prompt insight into reporting and analysis
- A more dynamic workflow in the business process, productivity and employee satisfaction
- A decisive step towards a paperless office
- Makes the work to get over fast
- Ease of recruitment, selection and assessment
- Ease of administering employee records Reductions to cost, time and labour
- Maintains anonymity of staff
- recourses saver
- system supportive Standard provider
- Easy controlling approach
- evaluation/feedback giving & Organization

X. DISADVANTAGES OF E-HRM

- Cost of training and development before adopting E-HRM can alienate staff members that need
- less face-time and increased risk of losing touch with staff
- Subject to corruption/hacking/data losses on corporate culture, the type and size of the organization and receptiveness of the staff.
- High cost of implementation and maintenance

XI. EVALUATION OF E-HRM

The evaluation of the E-HRM department is based on six driving forces. These forces need to be harnessed and responded to as companies approach the 21st century. The following six forces must be addressed by HRM departments that want to continuously increase their value while reducing costs.

1. Information Technology: HRM professionals are facing a digital future. The rapid growth in the field of computer hardware, software, networking, and telephony services is absolutely essential to the virtual HRM movement. It is not accident that virtual HRM departments will become the norm in the near future. This is especially true with the increase sophistication and lower costs of information age technology and automated processes.
2. Processes Re-engineering: Strategic HRM managers are constantly looking for ways to streamline and improve core business processes to make them efficient. All business processes especially those in the HRM department can be reengineered and improved through the skillful application of information technology.
3. High-speed Management: To be competitive, all companies must work smarter and faster. Virtual HRM is definitely a smarter and quicker form of service delivery than traditional HRM.
4. Networked Organizations: Virtual HRM Departments are more likely to emerge in networked organizations than in traditional and bureaucratic companies. The proliferation of information technology such as local area networks, e-mail, and corporate intranets are the trademarks of a flatter networked company. These new-wave organizations offer state-of-the-art technology and information sharing to empower all levels of personals.
5. Knowledge Workers: The 21st century organization will compete on strategic information and knowledge. These learning organizations´ will be staffed with self-directed and computer savvy, knowledge workers. These workers will excel at using information to quickly identify and capture lucrative business opportunities while also diligently identifying and resolving costly problems.

6. Globalization: To complete successfully in the 21st century, nearly all companies must develop a global business strategy. This means that HRM departments must be capable of providing services to their employees anywhere on earth. Obviously, a technology-assisted HRM department that is skilled at traversing the information super highway is in the best position to support a globalized work force.

Moreover, all of these forces reflect the enormous impact that information technology has, and will continue to have, on every process and procedure in the HRM department. Successful information of a virtual HRM department will clearly increase a company competitive advantage.

XII. CONCLUSION

E- HRM is a web-based tool to automate and support HR processes. The implementation of e-HRM is an opportunity to delegate the data entry to the employee. e- HRM facilitates the usages of HR marketplace and offers more self-service to the employees. e- HRM (Electronic Human Resource Management) is advance business solution which provides a complete on-line support in the management of all processes, activities, data and information required to manage human resources in a modern company. It is an efficient, reliable, easy – to use tool, accessible to a broad group of different users. e- HRM is 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. It covers all aspects of human resource management like personnel administration, education and training, career development, corporate organization, job descriptions, hiring process, employee's personal pages, and annual interviews with employees. Therefore e-HRM is way of doing HRM.

Human resources are considered as the most expensive resource in any organization; The goal of human resources management is to make sure that a company has the right number of people with the required knowledge, skills, abilities and competencies, in the right place, at the right time, at an affordable cost and who are motivated and determined to achieving the current and strategic need of a firm. Nowadays, a great many technological applications have emerged, claiming to cover nearly every "traditional" human resources management (HRM) activity; not only complementing it, but often even substituting it. In order to meet the demands of today's knowledge-based economy, it is almost a must for companies to maximize the potential and productivity of their employees, a goal towards which HRM information systems and E-HRM could be of help. E-HRM practice provides a more efficient and strategic way of working to reach the goals. E-HRM facilitates human resource functions with the chance to create new avenues for committing to organizational success.

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