

The Impact Of Information Technology On Human Resource Practices And Competencies

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Abstract

Information Technology (IT) as a structural factor and instrument transforms architect of organizations, business processes and communication, and is increasingly integrated into human resource management (HRM).

While IT has impacts on human resource (HR), at the same time managers, employees, customers and suppliers increase their expectancies for HR functions. The importance of knowledge and human capital make extra suppression on HR functions and new competencies for HR professionals are expected.

In this research, the impacts of Information Technology (IT) on HR practices and competencies of HR professionals are studied.

1. Human Resource and Information Technology

IT assists HR professionals in the delivery of services and affects all HR practices (Hendrickson, 2003: 381-394). Each IT tool can be used by different HR functions. For example, web data bases are used for learning at work, decision making and completing works (Benson et al. 2002: 392-404).

1.1. Human Resource Information System (HRIS)

HRM generally uses IT as HRIS. HRIS is an integrated system acquiring and storing data used to make analysis, make decisions in the field of HR (Hendrickson, 2003: 381-394; Luck, 2010).

A contemporary HRIS is a dynamic data base about employees' performance and demographic information. HRIS provides information about employees' data, employment, application requirement, job characteristics, selection and staffing, procedures of employment, corporate structure, professional and individual improvement, education costs, performance appraisal, personnel planning, organizing ect. And these data are used for many purposes simple or complex (Lippert and Swiercz, 2005, 340–353; Bernik et al. 2007:130-133).

1.2. Electronic Human Resource Management (eHRM)

eHRM is an IT application for supporting or connecting at least two people or collective actors in participating HR activities (Strohmeier, 2007, 19–37). Today, HRIS is accessible (distance access applications, system intervention, upgrading) for users trough internet ([www. comparehris.com/HRIS-overview/](http://www.comparehris.com/HRIS-overview/)). In other word, eHR(M) is a HRIS which HR personnel, managers and other employees access via internet or intranet.

2. Benefits of Information Technology

Technology affects organizations and work relations in organizations by enabling to access information and to join people electronically (Ulrich, 1997, 175-179). With new processes and providing some benefits HRIS changes traditional HR processes and it is expected that HRIS will provide functionality for realization of units' objectives and goals (Hendrickson, 2003: 381-394).

Cost decrease: Effects of IT on HR costs appear in several ways. First, IT reduces costs of processes and works. For example, transforming from traditional HR to eHR reduces costs of some HR applications, such as, postal cost, announcement cost and data processing cost (Lin, 2011, 235–257; Hendrickson, 2003: 381-394). Using self service technology reduces the processing costs of HR up to 75%. E-selections and e-recruiting decrease costs of staffing and selections due to reduced employee turnover, reduced staffing costs, and increased hiring efficiency (Strohmeier, 2007, 19–37). Second, using self service HR allows employees to

perform their own work themselves directly. Thus, HR professionals spend less time on routine tasks (Baloh and Trkman, 2003: 498-505).

Saving Time: IT allows HR professionals to spend less time on routine tasks (Gardner et al. 2003: 159–179) and make easier to acquire and analyze information (Bell et al. 2003). For example, researches show that recruiting process shortens twelve days (Baloh and Trkman, 2003: 498-505).

Increase in Efficiency: Intense use of IT aromatizes and standardizes routines. HR professionals may focus less on administrative activities and more on interpreting information. HR professionals may spend more time on other aspects of their jobs. Thus, HR professional can access more information, respond the problems in a timely major from managers and employees and evaluate the complex information more effectively (Gardner et al. 2003: 159-179). Comparing with manual processes, reducing data errors, simplifying and fastening processes of HR practices make HRIS more advantageous (Ulrich et al. 2008: 829-850; Hendrickson, 2003: 381-394).

Enabling communication and collaboration: IT is a tool for effective communication and collaboration. E-mail, messaging, discussion lists, videoconferencing, virtual teams, electronic workgroups, and teleworking have changed the nature of workplace communication and collaboration. These make workplace interactions possible for employees even they are not physically present in the workplace. (Benson et al. 2002: 392-404).

IT improves the skills of workers for collaborating, accessing information and decision making (Tafti, 2009). Participative decision making becomes an organization-wide activity. Internet and web based technologies facilitate sharing of decision making responsibility through the organization hierarchy and structure (Benson et al. 2002: 392-404). HRIS as an integrated system also increases the capacity of reporting in the organization. (Dessler, 2008:129).

Competency Management: IT tools enable HR professionals both to reach larger candidate pool and make decision making more objective and effective to employ more relevant and competent candidates by means of decision making techniques in the selection and recruiting process. Improving and shortening the recruiting process increases competencies of incumbents and as a result quality of works. At the same time, because of distance access eHR can be used to develop human capital of the organization effectively (Lin, 2011, 235–257).

Knowledge Management: Knowledge management is a systematic process of acquiring, creating, capturing, synthesizing, learning, and using information, insights, and experiences to enhance decision making (Ardichvili, 2002: 451-463). Knowledge management system is a natural extension of HRIS and HR development activities (Hendrickson, 2003: 381-394).

HR professionals should integrate traditional HR functions into knowledge management (Hendrickson, 2003: 381-394). Because organizations should acquire and manage organizational knowledge to prevent knowledge looses when employees leave the job.

Using IT tools such as intranet, virtual collaborations, data storage and data mining can improve skills for knowledge acquisition and distributions (Ardichvili, 2002: 451-463). Knowledge Management tools also facilitate knowledge participation and empower the specific task areas (Tafti, 2009). IT assists HR professionals to access and disseminate information more efficiently (Gardner et al. 2003: 159-179)

Structuring Strategic HR: Strategic role of HR focuses on aligning HR activities with HR strategies (Conner and Ulrich, 1996: 38-49). So, HR should work with managers and line managers in collaborations (Ulrich, 1998: 124-134). IT is accepted as an important impetus for strategic HR. IT builds stronger HR units and allows HR to engage in more significant strategic roles. IT solutions free HR from the burden of routine administrative tasks (Haines III and Lafleur, 2008: 525-540). If HR professionals rely on IT, they hold a more strategic role. Because they will have time to interpret information, develop strategies and think about corporal transformation (Gardner et al. 2003: 159-179).

3. New Processes supported by IT

Adaptation of IT in HR functions has created new HR processes. These applications are e-learning, virtual recruitment, self service HR and portal technologies and new types of working.

e-learning: e-training, e-learning (Strohmeier, 2007, 19–37) or web based training is a growing HR application (Hendrickson, 2003: 381-394). IT tools can be used for formal and informal education activities. e-mail, mail lists, dash boards, message systems, web pages, online courses, and media applications are some of BT tools which support learning in workplace (Benson et al. 2002: 392-404).

Virtual recruitment: Web based recruitment; virtual interview, CV searching, online psychological test and online job announcements have changed and fastened the recruitment process. These applications also removed the potential obstacles to reach larger candidate pool (Hendrickson, 2003: 381-394; Gardner et al. 2003: 159-179).

Self Service HR and portal applications: Employees can perform some of their own HR activities by means of accessing HRIS. This is called self service HR. Self service applications can include 60 percent of all HR activities (Ulrich et al. 2008: 829-850). Employees who use self-services can easily update and verify personal information, have information about internal job vacancies, access corporate handbooks, and receive notices about training programs. Managers can analyze candidate profiles, construct salary models, view benefits programs and monitor absentee trends. Moreover, performance appraisal and career development can be managed (Lippert and Swiercz, 2005, 340–353). This also increases perceived quality of supplied HR services (Ulrich et al. 2008: 829-850).

HR portals are complex information technology tools (Ruta, 2005: 35-53). HR portals give the chance for each individual user to arrange or customize his or her own portal according to his or her own job responsibility or preferences (Hendrickson, 2003: 381-394).

New types of working: Development in information and communication technologies created some new types of working such as teleworking and project based works.

Teleworking as a concept changes the accepted geography of work. That means “moving the work to workers instead of moving the workers to work”. By means of IT tools efficient collection of people with similar interest and complementary skills, and their cooperation in short or long-term projects are possible. Teleworking offers significant advantages: higher productivity, lower absenteeism, more satisfaction and lower turnover rate (Baloh and Trkman, 2003: 498-505).

4. Human Resource Competencies

Competencies are defined as an individual’s demonstrated knowledge, skills or abilities (Ulrich et al. 1995: 473-495). Competencies are personal characteristics about people; who they are, what they know and what they do, or personal characteristics cause superior performance (Yeung, 1996: 119-131). Dynamic trends in the external business environment that companies face, and nature of HR demand that HR professionals develop new capabilities and competencies (Quinn and Brockbank, 2006: 477-494). In this context development of technologies in work place, internet and web based IT have very important impact on HR professionals and affects their functions and activities (Benson et al. 2002: 392-404). To respond new role expectations HR professionals must learn and develop new skills (Gardner et al. 2003: 159–179).

Technological Competencies: Computer literacy became a prerequisite job skill in HR. Organizations want HR professional to keep up with development in HRIS and to effectively implement and manage HR information technology (Kaufman, 1996: 540-548). So HR professionals need to learn new skills in areas of IT that they do not already have. (Gardner et al. 2003: 159–179). These are necessities to challenge in the dynamic and competitive environment (Lin, 2011, 235–257; Meisinger, 2005: 189-194).

HR professionals use IT for acquiring data and must have competencies to transform these data into strategically valuable knowledge. HR professional should determine technology needs, manage technology supplier and mobilize technology to evaluate and support HR functions (Bell et al. 2003). According to Schoonover HR professional should not rely on IT departments to purchase technologies (Schoonover, 2003). Because, IT experts may focus on technology design and application rather than business success (Ulrich et al. 2008: 829-850).

Leveraging technology HR professional should use web based/eHR to add value effectively to organizations (Ulrich, 1997: 175-197; Brockbank et al. 2003).

Business knowledge: eHR plays an important role for HR professionals to focus on strategic partnership (Bell et al. 2003). Some HR professional can be unsuccessful to adopt technology to business although they know HR technology. (Ulrich et al. 1995: 473-495). So in order to be an important player in organizations and add value for organizations HR professionals must understand the business, industry and business strategies. They need to know about finance, marketing, supply chain management, manufacturing, logistic, customers,

competitors, financial markets and globalization (Quinn and Brockbank, 2006: 477-494). The competencies of HR professionals in business do not necessitate the ability to do all the business functions, but the ability of understanding businesses (Ulrich et al., 1995: 473-495).

Change management: Adaptation of new IT in firms changes corporate routines, business processes and business habits (Tafti, 2009). If HR professionals have the competencies of change management they can help organization members to manage change and add value to their organization (Ulrich et al. 1995: 473-495). For example, HR professionals must manage cultural transformation to support self service HR system in the organizations (Bell et al. 2003).

5. Evaluation

Beside IT is an important instrument for realizations of HR functions, widely use of IT in the HR functions affects HR management in many aspects.

Traditional HR functions: Use of IT within the HR functions increases effectiveness and efficiency of HR practices, decreases time and costs. Moreover, IT facilitates distributions of information along the organizational hierarchy, it empowers organizational decision making and knowledge management.

New HR process: Self service HR, e-learning and e-recruiting are new processes. These are possible only with IT tools. These new processes regarding effectiveness, efficiency and cost create more value than traditional HR processes do for the organization

New types of working: Widely use of IT in the business creates new types of works such as teleworking and web based project contracts.

Strategic impact: IT is a very important force for the transformation of HR functions. IT decrease transactional burden on the HR functions. So HR professionals devote more time for the strategic issues to be a strategic partner.

New Competencies: Transforming HR management from administrative functions to strategic focus defines new competencies of successful HR professionals. These competencies are business knowledge, change management and technological competencies.

HR professionals can be unsuccessful in adaptation of IT in business although they know about technology. In order to be an important player in an organization and to create value for the organization HR professionals need to know about business and its environment. Adaptation of IT also changes the routines, business processes and work habits. So HR professionals need to have the competencies of change management. HR managers need also new competencies on IT and more knowledge on facilities of IT before they had in the past.

As a result, applications of IT in the HR functions both affect HR practices and make HR professionals develop new competencies.

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