

## **Impact of Information Technology in Human Resources Management**

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### **Abstract**

In nowadays top leaders fully realize the power of information technology (IT) tools for reaching business targets. The utilization of IT tools help not only to fulfill defined company's goals but to optimize the work processes as well. Trends and results of the contemporary studies constantly confirm contribution of the IT tools in Human Resources (HR) area i.e. to accomplish assigned HR tasks by using the source of IT capabilities. The following paper gives a brief overview about possibilities of IT usage in HR field for measuring and tracking human capital and using the HR information system generally.

**Key words:** Information Technology, Human Resources Management, Company's Goals, Recruiting, Idea Management, Human Resources Development

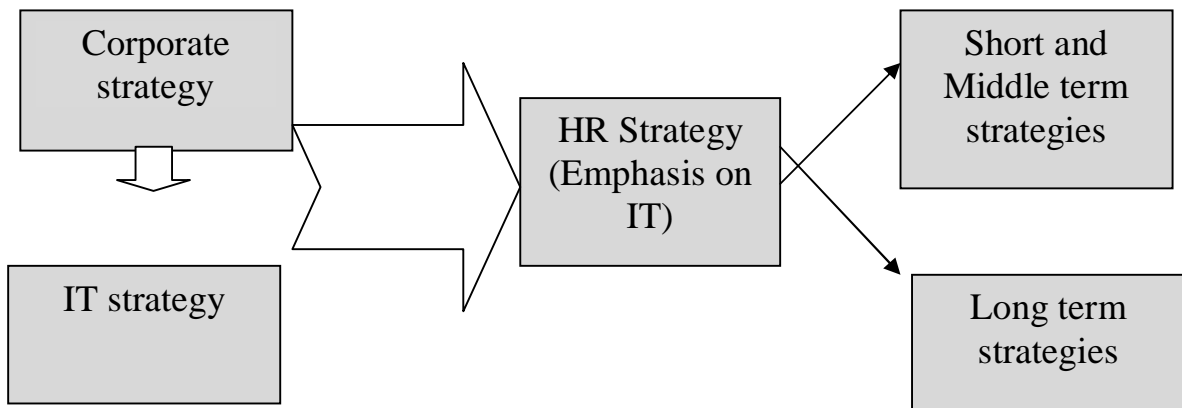
### **1 Introduction**

There is no underestimation of importance and effect of the Human Resources management at all. Lately, management of Human Resources and its needs are becoming the center of the attention of each individual employer in every organization. The orientation of company on human resources starts to be one of the key tasks of a strategic management and Human Resources play an important role in all strategic decisions. Managers of Human Resources ask for more strategic position of their department within the organization with the aim to get to the essence of the problem how to manage, to motivate and to increase the performance of organization.

The importance of human potential for company increases proportionally with the speed of changes which appear in the business area because human capital represents a basic qualitative parameter of fruitfulness of any changes. Following that, Human Resources Management (HRM) must aim at achieving the competitiveness of the company in the field of HR by means of providing constant educational and training programs for personal development of employees.

It has been scientifically proven that one of the supporting pillars which can contribute to the fulfillment of the personal policy is the usage of IT technologies in HR. Information and Communication Technologies (ICT) - a catchall term for techniques associated with mobile communication, internet, new media and PCs - allow companies to improve their internal processes, core competencies, organizational structures as well as relevant markets on a global scale. ICT is spreading throughout every sector of the economy and has implications for almost every enterprise (Helfen and Krüger, 2002).

Human resource processes should be focused on the strategic objectives. These strategies are led to prepare an IT strategic plan that in turn translates into an appropriate human resource strategic plan in the field of IT as the Figure 1 depicts (Sameni and Khoshalhan, 2006).



**Fig 1 – The Framework of Information Technology Human Resources Plan**

**Source:** SAMENI, M.K., KHOSHALHAN, F. Analysis of Human Resource Development for Information Technology and E-Commerce in Iran. IT Department, Faculty of Industrial Engineering, K.N.Toosi University of Technology, Tehran, Iran. 2006, p.1190.

IT plays a critical role in leveraging and complementing human and business resources (Powell and Dent-Micallef, 1997). The importance of using the HR - IT tools, the authors express as follows: *"in organizations, despite increasing needs for*

*technological advancement, human and cultural factors play a more important role than before. However, technology is often seen by management as essential means to compete in the global market. To that technology, including information technology, brings the desired results, the most important issue for an organization is how to manage the technology with respect to human organizational aspects, how to analyze and understand human factors guided by the norms, shared beliefs, and assumptions of the organization, as well as by individuals' unique values-all together known as "culture."*” (Zakaria and Yusof, 2001)

Information systems in HR can (Armstrong, 2002):

- provide better services to line managers,
- serve as a pipeline connecting a personal policy and personal processes in all organization and thus facilitate personal management in the company,
- provide important data for a strategic personal decision-making and enable a quick acquiring and analysis of information for HR assistants,
- reduce cost labors at performance of personal activities.

The study called "Effects of HRM practices on IT usage" (Lee, 2009) shows that organizations use technologies for HR field such as employee participation, clearly defined jobs and extensive formal training. On the other hand, according to survey, companies which are using external IT capability, only internal career opportunities used IT tools.

HR function used to employ IT for administrative processes, primarily payroll processing, with little attention being paid to so-called transformational HR practices (DeSanctis, 1986). Nevertheless the results present in paper (Bondarouk and Ruël, 2009) that "in 2006, as the CedarCrestone 2006 HCM Survey shows, companies broadened the scope of HRM applications: although administrative e-HRM was still the most popular application (62% of surveyed companies), companies reported an increasing use of strategic applications like talent acquisition services (61%), performance management (52%), or compensation management (49%)."

## **2 Direction of the research**

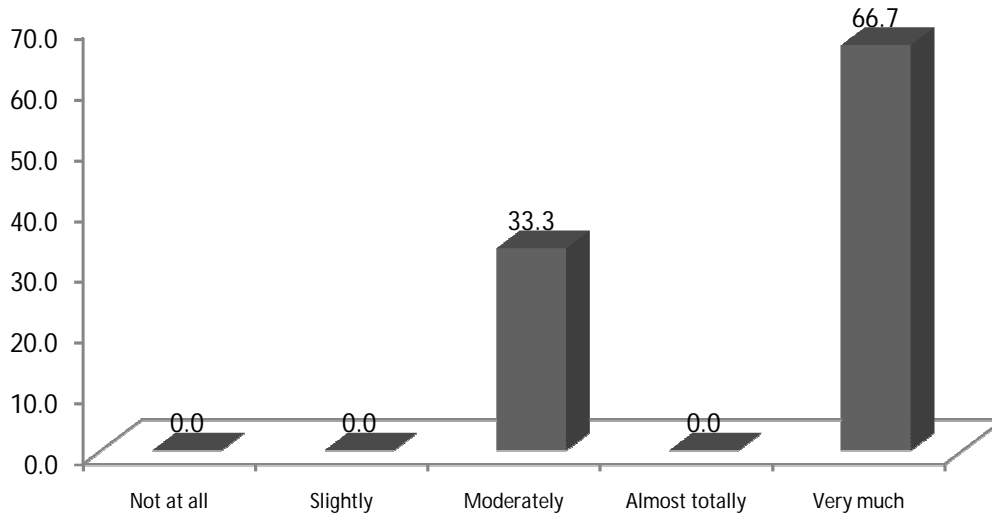
The main aims of an empirical study performed within multinational manufacturing companies with over five-hundred employees is to identify the level of using the HR IT tools in companies, factors on which management should make stress during the implementation of the IT tools and simultaneously find out which IT tools can be used in scope of HRM. The research is compiled by forty questionnaire surveys and consecutively by direct observation in the firms and structured interviews with fifteen HR managers. The anonymous questionnaire and interviews were focused on the following fields:

- IT tools usage in HR field,
- Efficiency of HR IT tools usage,
- Management's support of the HR information systems application,

- Advantages and disadvantages of HR IT tools usage,
- Implementation of HR IT tools,
- HR IT tools versus HR strategic goals.

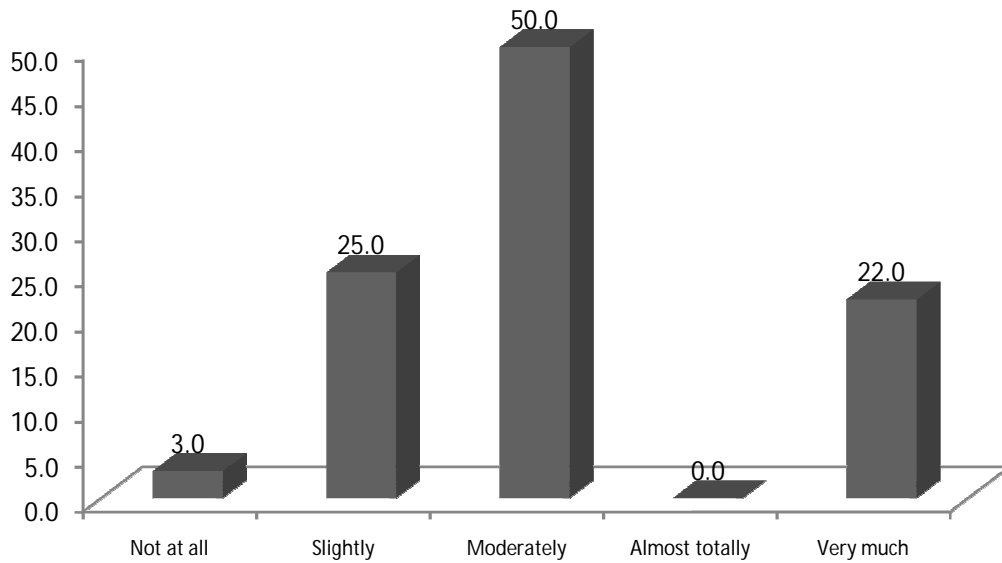
### 3 Research results

The questionnaire reveals that 98 % of the respondents use IT tool in HR field. Concerning the efficiency of HR IT tools usage 66,7 % of respondents confirmed that HR IT tools help in everyday work considerably and 33,3 % of the respondents point out that HR IT tools support daily work moderately.



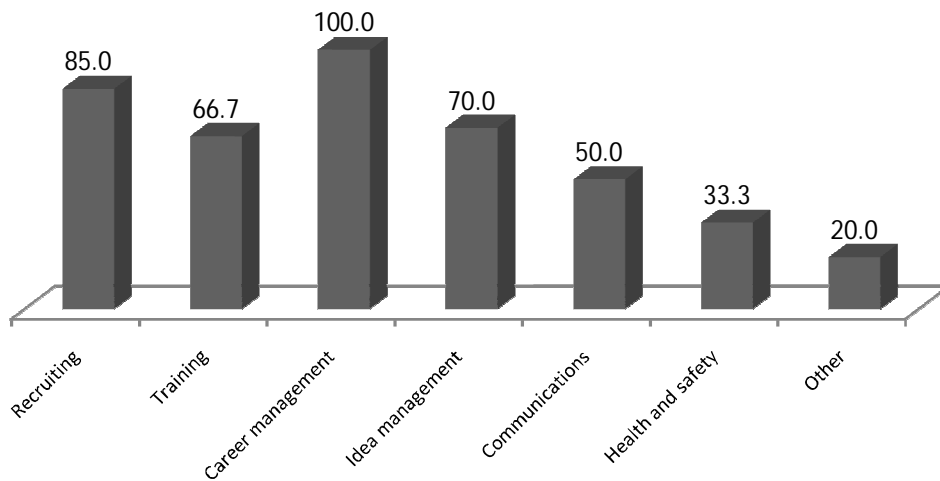
**Fig 2 Efficiency of HT IT tools usage in %**

Further the survey shows that 22 % of respondents confirmed supporting the reaching of HR goals significantly by using of HR information system and 50 % of respondents answered that HR IT tool support HR goals moderately and 25 % slightly and 3 % not at all. The results are depicted in the graph:



**Fig 3 Reaching strategic goals using the HR IT tools in %**

To evaluate the using of IT tools in HR management the respondents answered on the following question “In which HR area the IT tools are used in your company?” The results are shown in the graph:



**Fig 4 IT tools usage in HR field in %**

Based upon the interviews with HR managers, firstly management has to clearly define which core HR processes are to be integrated and transferred into HR

IT systems. This is one of the crucial factors for effective implementation and accomplishment of HR IT usage. Consequently, it must be defined which IT tools fulfill described HR demands. Secondly, HR managers state that main advantages of using HR IT tools are time saving, work efficiency, keeping employees fully informed. The research reveals that HR managers should make stress on HR goals, the HR budget in the beginning of the implementation of the HR IT tools.

The IT tools should be user friendly, service efficient and reduce HR transactions that add no value. HR managers confirmed that usage of HR information system is essential and it makes their work easier on the one hand but it requires effective HR IT tools on the other hand. Further the interviews were focused on the three HR fields where companies use the HR information systems according to online questionnaire (Fig 3). The usage, benefit and add value of HR IT tools in firms are shortly described.

### **The HR role in IT Human Resources Development**

Career planning tool is a generic, learning, knowledge-based system that helps top leaders to manage the personal development and path career of employees. One of the most important online supports within Human Resources is tracking the Human Resources Development Core Processes. The tool should provide all necessary information about individual succession planning of employee, next development measures or evaluation of overall performance and review of the potential. Experience from many companies points out that the essential part of the tool is agreement of individual goals between employee and supervisor which should be directly connected to a business target. This is also connected with the fact that companies use determination of individual goals for employees in the full range in order to reach strategic goals of the company. One big advantage of the tool is that entered data are stored in database which provides attainability and visibility of the history anytime and simultaneously online system can provide a considerable cost saving. The tool should also include the reporting, it means provide information about needed trainings for employees, report about ideas for further employee's personal development. The above mentioned reports make easier the work of the Human Resources department.

### **The Human Resource Role in Information Technology recruiting**

In nowadays, managers realize that human capital has become the last competitive benefit and IT recruiting can broadly support efficient hiring together with forming the workforce. In order to attract the best candidates, it is vital that both HR and IT departments cooperate together. The HR role in IT recruiting is of key importance, including time of crisis. The "war of talents" carries on, despite the current crisis. The HR IT tools can support hiring and retaining a high potential. It begins with launching the career website what is a very good promotional tool. Employer can present all necessary information related to job, careers or personal development of each applicants there. The career website should focus not only on potential employees, but target group should also include the students, graduates or school pupils in order to have a possibility to "raise" new employees for the future.

The cooperation with students can save the costs especially if company needs specialists for future business needs. One big advantage which companies should use via career website is to have opportunity to apply for a job online. Additionally, company can present information about corporate culture or environment. Further, it can be connected to the internal recruiting track system which can help to HR generalist in communication with candidates to organize the selection processes. System should cover the whole application process, from position approval to candidate approach.

### **The Human Resource Role in Information Technology Idea management tool**

To keep high performance culture, company should maintain a continuous improvement of core processes and activities. The tool which supports Idea Management processes should provide how many improvement proposals are submitted by the employees. It can also provide the information of saved revenues and costs by implementation of improvement proposals. The main purpose of online support in Idea management is to build a tool which gives the opportunity to all employees to present their applicable and well-founded ideas on the one hand and on the other hand company becomes more competitive. The above mentioned IT support carries the advantages as follows:

- Save money,
- Avoid costs or
- Improve process performance.

Considerable benefit is an immediate possibility to create various reports and finally to see if company fulfils the target of a key performance indicator. One of the last advantages of IT online system is that it helps to provide availability of improvement proposals anytime and thus enables to avoid paper form. Above mentioned gives overview how technologies can assistance HR processes in order to reach the business targets.

## **4 Discussion**

The survey confirms that companies use HR IT tools and should contain all HR processes which will sustain all parts of HR it means from "Recruit to Retire" functions within the company. The research presents that the importance of HT – IT usage is getting more and more important not only due to the fact that HR productivity increases but at the same time, the value of the organization increases, including the most important asset – Human capital. First of all implementation HR IT tools requires to perform analysis which provides information about benefit of IT usage. Also during the implementation, attention must be paid to the protection of sensitive data about employees. If the tools are implemented on higher level, it can bring cost saving for the company, reduce process time, quality of work and finally the major benefit is the contribution to the strategic development of the company. It is

essential that the tools are user friendly for all employees, provides data and reports necessary for the employees' jobs. Next point which has to be taken into consideration is that implementation of HR – IT tools can increase the costs e.g. purchase of the facilities, i.e. companies have to be aware of it during preparation of budget. Nevertheless, HR IT tools must help all employees because incorrect implementation may bring negative consequences e.g. the employees may understand the usage of tools as an inevitable evil which does bring any effect neither them nor the company.

## **5 Conclusions**

Globalization brings the requirement to think how IT can contribute to fulfillment of business strategy in the frame of Human Resources management in order to steer the business towards excellence and reach competitiveness in the market. Despite the fact questionnaire revealed that information technology sustains reaching the HR goals moderately, precise plan of implementation of HR information system can significantly support HR strategy in the company to attain defined key performance indicators (KPI). The project should mainly contain what has to be achieved it means how IT tools can support the KPI and which kind of HR processes IT tools should sustain. The research will be extended by further survey.

## **References:**

### **Books**

- [1] ARMSTRONG, M. A Handbook of Human Resources Management Practise, 8<sup>th</sup> edition. (in Czech.) Praha: Grada, 2002. 777p. ISBN 80-247-0469-2.

### **Periodicals**

- [1] BONDAROUK, T.V., RUËL, H.J.M. Electronic Human Resource Management: challenges in the digital era. The International Journal of Human Resource Management. Vol. 20, No. 3, March 2009. 505P.
- [2] LEE, CH. S., LEE, CH. H., Effects of HRM practices on it usage. Journal of Computer Information Systems. Winter 2009.
- [3] POWELL, T. C., DENT-MICALLEF, A. "Information Technology as Competitive Advantage: The Role of Human Business, and Technology Resources," Strategic Management Journal. 1997.
- [4] DeSANCTIS, G. Human Resource Information Systems: A Current Assessment. MIS. Quarterly, 10. 1986.



### **Other reports and documents**

- [1] HELFEN, M., KRÜGER, L. Information Technology, New Organizational Concepts and Employee Participation - Will Unionism Survive?. 202p. 0-7803-7824-0/02.
- [2] SAMENI, M.K., KHOSHALHAN, F. Analysis of Human Resource Development for Information Technology and E-Commerce in Iran. IT Department, Faculty of Industrial Engineering, K.N.Toosi University of Technology, Tehran, Iran. 2006.
- [3] ZAKARIA, N., YUSOF, S.A.M. The role of human and organizational culture in the context of technological change. School of Information Studies, Syracuse University, Syracuse, USA. 2001. 0-7803-7260-3.

