The Effect Of Information Technology On Human Resource Management

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Abstract: Top executives today are fully aware of how effective information technology (IT) tools can be in achieving their objectives. The use of IT solutions facilitates the optimization of work processes in addition to helping the organization achieve its stated goals. Current research trends and findings consistently validate the role that IT tools play in the Human Resources (HR) domain, i.e., in enabling the completion of designated HR tasks through the utilization of IT resources. This paper provides a quick summary of the ways in which information technology (IT) can be used in the human resources (HR) profession to measure, track, and use the HR information system in general.

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

I.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 scientology 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).
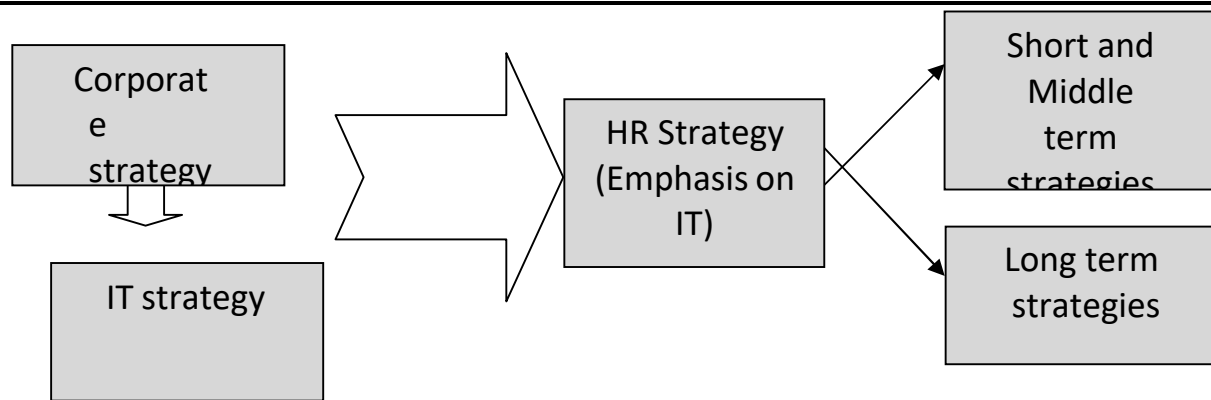
FIG 1 – THE FRAMEWORK OF INFORMATION TECHNOLOGY HUMAN RESOURCES PLAN

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%)."

I. 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.

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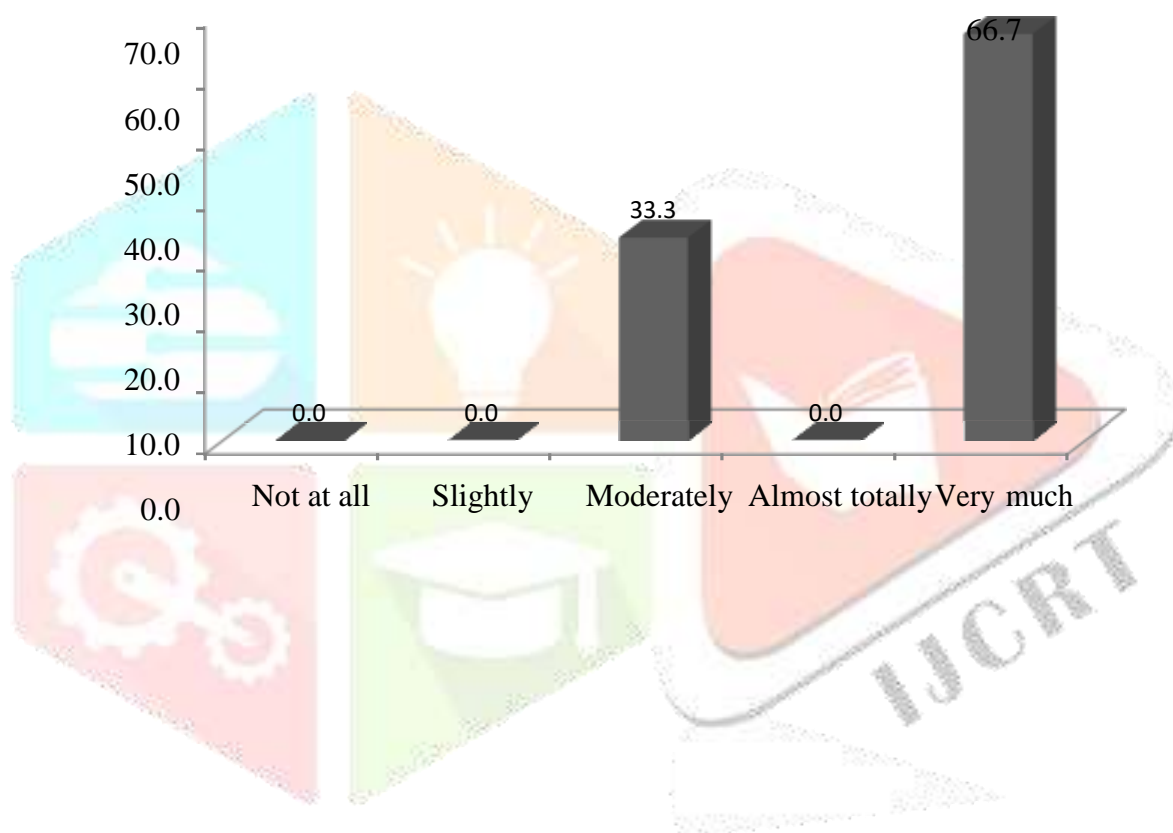
Further the survey shows that 22 % of respondents confirmed supporting the reaching of HR goals significantly by using of HR information system and 50 % of respondents answered that HR IT tool support HR goals moderately and 25 % slightly and 3 % not at all. The results are depicted in the graph:
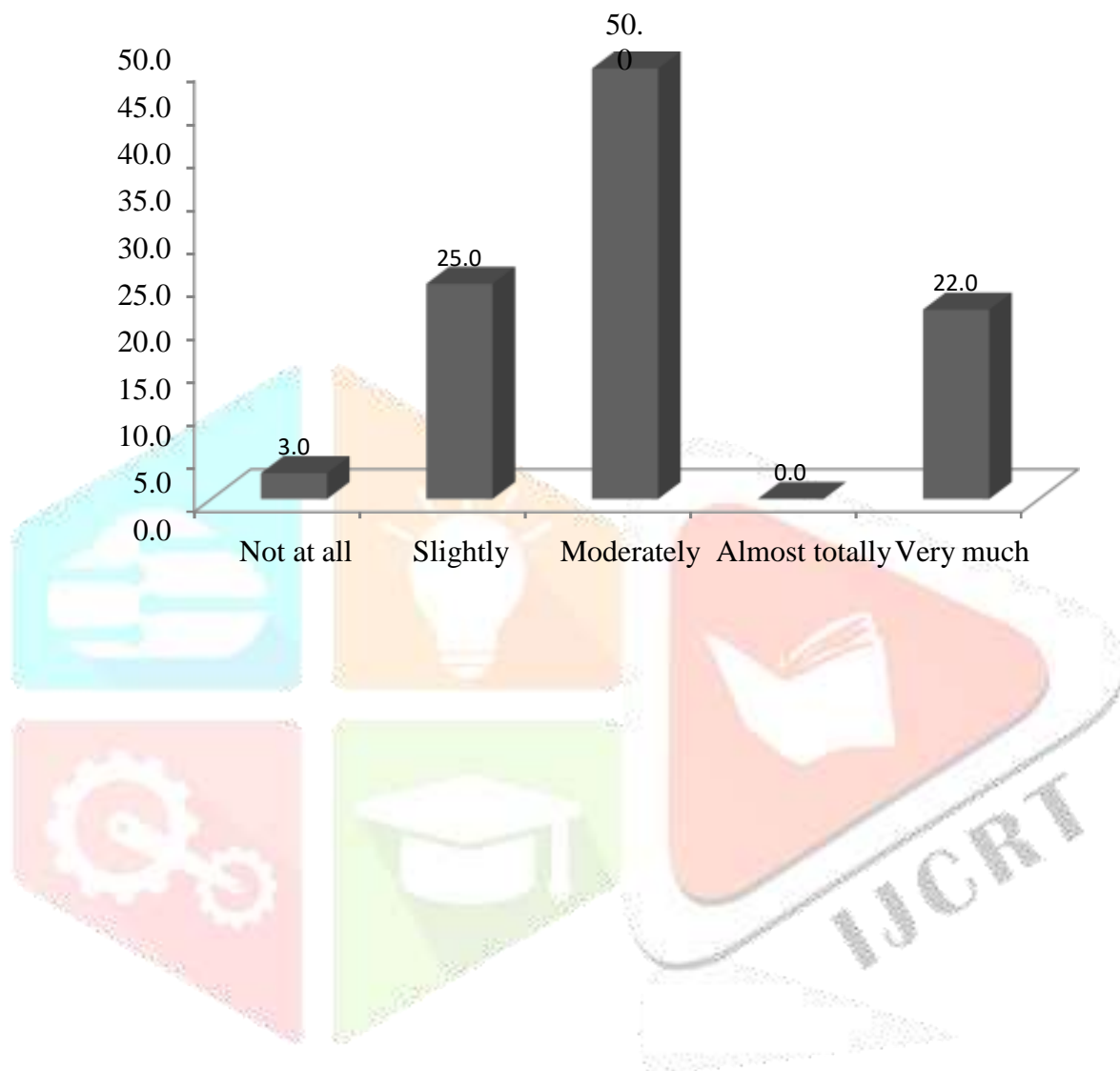
Fig 3 Reaching strategic goals using the HR IT tools in %

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:
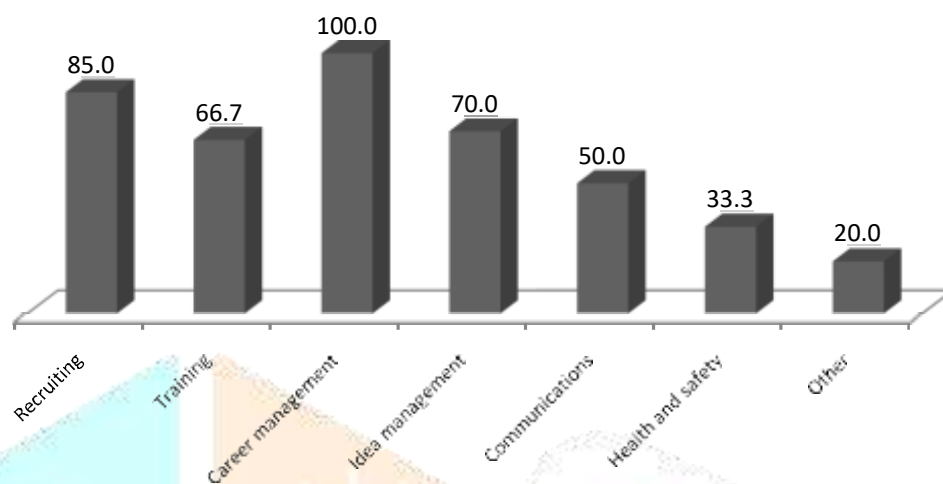
Fig 4 IT tools usage in HR field in %

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.

1   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. Experiencefrom 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 trainingsfor employees, report about ideas for further employee's personal development. The above mentioned reports make easier the work of the Human Resources department.

2   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.

3   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 businesstargets.

III. 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.

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.

IV. CONCLUSIONS

In the context of human resources management, globalization necessitates considering how IT may support business strategy fulfillment in order to drive the company toward excellence and achieve market competitiveness. Even if the questionnaire's results showed that information technology only marginally supports HR goals, a well-thought-out plan for implementing an HR information system can greatly help the company's HR strategy in order to meet its established key performance indicators (KPI). The project should primarily outline what needs to be accomplished, including which HR procedures IT technologies should enable and how they might help the KPI. A second poll will be conducted to further the research.

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