

# Impact of Information Technology on Human Resource Management practices

**Dr. Geeta Sachdeva**

*Assistant Professor, Department of Hum. & Social Sciences, NIT-Kurukshetra*

## ABSTRACT

*Now as days, Human resource is not taken as a sole function. It's an assembly of extremely specific competences - each with different purposes, tasks & needs. There is an ever-increasing burden on Human Resource (HR) function to sustain strategic objectives and to emphasize on value adding events. Companies have understood the mounting significance of using Information Technology (IT) in leveraging their HR functions. It takes the form of e-HRM (Electronic Human Resource Management). The e-HRM revolution depends on cutting edge information technology, extending from Internet-enabled Human Resources Information Systems (HRIS) to company intranets & portals. The driving forces are increasing competition, need to manage employees on a world-wide level, to increase HR service delivery & to bring cost savings. The present paper examines the usage of Applicant Tracking System (ATS). The study offers understandings into a framework of e-HRM and Human Resource Information System (HRIS), along with its benefits & limitations. It converses the impact of ATS on HR process, professionals & jobseekers while suggesting a model of Human Resource Information System (HRIS) based on the operation of ATS. Further an attempt has been made to recognise implications for upcoming research in this arena.*

**Keywords-** *Human Resource (HR), Electronic Human Resource Management (e-HRM), Human Resource Information System (HRIS), Information Technology.*

## I. INTRODUCTION

Recently, Human Resources Management & its needs are becoming the centre of the consideration of every individual employer in each organization. The positioning of organization on human resources starts to be one of the important strands of a strategic management & Human Resources have an essential part in all strategic decisions. Managers of Human Resources request for more strategic consideration of their division inside the organization with the object to catch to the essence of the problem how to manage, to inspire & to upsurge the performance of organization. The significance of human potential for organization rises proportionately with the speed of changes which seem in the business area because human resource epitomizes an elementary qualitative parameter of productivity of any changes. Subsequent that, Human Resources Management (HRM) must object at attaining the effectiveness of the organization in the arena of HR by the method of offering continuous educational & training programs for individual growth of employees.

It has been established that one of the associating pillars which could contribute to the fulfilment of the personal policy is the practise of IT technologies in HR. Information & Communication Technologies (ICT) - a general

term for methods associated with mobilecommunication, internet, new media and PCs - permitorganizations to expand their interior processes, core capabilities, organizational structures as well as pertinent markets on a world-wide scale. ICT is scattering throughout every segment of the economy & has consequences for nearly every organization (Helfen and Krüger, 2002).

Technology has affected human resource management in many ways (Kossek, 1987). The influence of fast structuralvariations in India observed evolution &expansion of technological sophistication. Indian companies needed to cope with theextremely diverse work force into well skilled, inspired& competent employees with there- retaining & multi skilling problems, workforce reduction policies, retention &career development (VenkataRatnam, 1998).

Augmented access empowered employees to be privy of information that was once only a executive prospective, which has consequences for power relations & task environments that inspire additional strategic human resource management (SHRM) novelties (Kossek, 1987).As HR functions & the demand for services endure to cultivate in scope & depth, sodoes the need for a multi-functional, operationally effective, flexible information system to sustenance service & data requirements. With several functions to track &enormous amounts of information to process regularly&precisely, HR managers have turned to information technology (IT) to assistance them encounter their company's information needs. Human Resources &information technology are the two essentials that numerouscompanies are learning to practise as strategic weapons to compete (Jenkins andLloyd, 1985).To capitalize on the interaction between these two assets, human resource information systems (HRIS) is an developing investigative area that is leading human resource management into a novel era. Human Resource Information System uses the IT developments & features for operative functioning of the HR processes. Themountingusage of information technology in human resource has meaningfullyaugmented the efficacy of HR management activities & processes, amplified their swiftness&condensed cost. It has created an active& efficient communication system, employee assignment, talent development, employee development, performance management, training & learning. In adding, the use of HRIT offers value to the organization &rise HR professionals' position in the organization (Ulrich, 1997).

The old-style HRM style mostlyengrossed on supportive personnel activities for an organization comprisinggathering employee information, observing individual performance, &employing organization policies. The fresh role of HR manager should comprehend the company strategy &frame the consistent management strategy on human resources to expand delivered service, and act as a strategy partner with top management team (Beer et.al., 1997). HR professionals should embrace technologies that sustenance organizational changes &create a proper developing climate to develop innovative & knowledge-based organizations.

## **II. REVIEW OF LITERATURE**

Many studies have been made & many books have been written concerning the impact of IT on Human Resource Management. The usage of information technology in HR has grown upsignificantly in recent years. A review of literature discloses that: The role of IT in HRM could be traced back in the last span of 20th century.

Ruel et al. (2008) have discovered that the term e-HRM was first used in the late 1990's when e-commerce was sweeping the corporate world & e-HRM is interior application of e-business techniques. It assistances the management in more effective & efficient flow of information & method of doing HRM. Companies could manage asnowballing number of HRM procedures in an effective manner with the enhanced information technology, thus contributing to the obtainability of information & knowledge. This in turn assisted HRM professionals to have a strategic role in achievingupgraded competitive advantage. Attracting, retaining, &inspiring employees, meeting the demands for a more strategic HR function, &management the "human element" of technological change in the future has been assisted by progressions in IT to encounter the challenges of HRM (Ashbaugh and Miranda, 2002). HRM and IT can meet the challenge of concurrently becoming more strategic, flexible, cost-efficient, & customer-oriented by leveraging information technology (Snell et. al., 2002).

Walker (1982) establishes that Human Resource Information System is a methodical procedure for assembling, storing, maintaining, recovering&authenticating the data required by company for its human resources, personnel activities & organization unit characteristics. It can sustenance long-term planning in relation to manpower (Kovach et al., 2002) containing supply & demand predictions, recruitment, partings& development with information on training program costs & work performance of trainee. It can also support compensation programs, salary predictions, pay plans, employee relations, bond negotiations etc. Information technologies have added value to HR applications which assisted in emerging a human resource information system (HRIS).

To streamline the term, HRIS epitomiseselectronic personnel information that helps enable human resource management (HRM), fluctuating from simple record-keeping to refined decision support systems. Paybacks of employee involvement through organization-wide communication channels & employee development via self-paced, computer-based training would not be covered. HRIS offers an electronic database for the Storage & recovery of HR data that is, at least possibly, obtainable to anyone allowed access it. Significantly, an HRIS could be designed in diverse ways, contingent on the insights&knowledge of those involved. For instance, an HRIS might be used just as an electronic filing system, for mechanising HRoperational processes or it might be used to empower a more strategic approach to the management of human resources. HRIS is used to obtain, store, manipulate, analyse, recover, &dispenserelevant information concerning an organization's human resources (Kavanagh et al., 1990). Its growth has been evolutionary. More lately, HRIS is being supported to sustenancedecision-makingprocedures in order to attainconstant competitive advantages (Broderick and Boudreau, 1991). The extensiveness& depth of automation in human resource information differscontingent on its developmental stage.

From the above stated studies, it could be determined that HR is now being taken as an essential part of the company. It is not limited to obtaining& utilizing manpower merely. It is correspondinglynoteworthy in cutting costs by keeping record of employee data, their abilities& performance as well. New software's are being advanced for strategic planning, manpower forecasts, managing training & manpower budget, compensation system management, enhancing employer-employee relations etc. Information Technology has made anexcessiveinfluence on the increasing the efficiency&spreading the role of HR function. HRIS system aids

employees to add & modify information connecting to them & view their reports. Though, little research has been made to discover the impact of IT on HRM.

### **III. RATIONALE OF THE STUDY**

Human resources are very significant asset for any company & precisely for the Service Sector where employees can be referred as the mixture of all 4M's of Management that is Man, Machinery, and Material & Management. Because of this great prominence of human resources, all the HR functions have to be taken good care of. To utilize the employee's efficiency & effectiveness to the complete it is very significant to manage them appropriately. Sometimes the employee can be the critical factor for the company but not doing well in his present position or role in the company. Also both, excess & scarcity of employees affects the organizations. Human resource planning aids the organization to overcome from such challenges by calculating the number of employees, as well as their job description. Not only this, performance assessment being the top motivating factors in the organizations need to be managed appropriately & HRIS assistances for the same by analysing the employee's devotion to his work & his orderliness in the organization. In this vibrant scenario, the prominence of IT and HRM can't be ignored. This research work emphasizes on the contribution of information technology in HR department of organizations.

### **IV. METHODOLOGY**

Secondary data has been used for the present study. It has been collected from wide-ranging desk research through library, diverse published materials & the world-wide web. The study has been made to observe the IT tools used for HR Planning, Recruitment, Communication and Engagement, Maintenance and Development.

#### **Objectives of the study**

The present study primarily aims at:

- To discuss the functions performed by traditional HR department.
- To throw light on the changes in HR function in the recent past.
- To analyse the role of Information Technology (IT) in HR.

### **V. ANALYSIS AND INTERPRETATION**

**Traditional Vs. New HR Functions** Traditional HR Storey (1995) has identified that the traditional personnel managers paid consideration to labour management, but did not contribute into an organization's planning & strategy decision. They paid excessive consideration to control their employees, counting prudently designing the contracts & guidelines for observing the employees. Till the last two decades of the 20th century, HR function was labelled as the personnel management executing the functions of personnel administration & industrial relations counting recruitment, selection, training & development, performance appraisal, rewards & industrial relations. HR was not given due position in the organizations. The role of HR manager in the company was limited to rules & regulations for employee management. Real decisions were applied by the line managers as they were accountable for building employee relations & maintaining harmony. During this period, there was a

change in the role of HR professionals as they were being considered for strategic business issues. Scope of HR was broadened to some extent with new HR functions connecting to strategic business issue. Moreover, executing the routine HR issues at the operational level & procurement and maintenance of staff at managerial level, he was involved to advanced level in policy design to get talented & qualified people & analyse long-term manpower demand. Therefore, HR professionals started to be encompassed in organizational policy framework. Still, it was still mostly involved with repetitive administrative matters only in most of the companies. It can be concluded from the above discussion that HR in its traditional role was concerned with administration of HR function, making decisions on matters of industrial relations & furthering them to line managers. Late a new role was added i.e. to contribute in policy framework for predicting long-term manpower demand.

### **New HR**

There was substantial modification in the role of HR professionals in the last decade of the 20th century. Ulrich (1997) demarcated four roles of HR professionals counting - role of strategic business partner, change agent, administrative expert and that of employee champion. As strategic business partners, HR professionals work with topmost officials to develop, execute & assess competitive company strategies, HR strategies, policies & practices and supportive business strategies. In their role as change agents, they manage the Organizational changes & generate new culture where its employees are encouraged to contribute in the new condition. As administrative experts, they aid in scheming organizational procedures, building organizational capacity to attain competitive advantage, dropping cost, adding value & better HR services to make HRM works more effective & efficient. In the role of employee champions, the HR professional has an important role of inspiring the employees & gives them training to improve their capabilities. He epitomises the voice of the employees & is accountable for increasing their commitment, skills, knowledge & competences of the employees. The varying role of HR professionals in the current scenario made Ulrich & Brockbank (2005) to advance a new model. The model clarifies five functions of HR professional which substituted their previous model with four roles developed in 1997 as clarified earlier. These five roles were: strategy partner, functional expert, employee advocate, human capital developer and HR leader. They also stated the accountabilities with each role.

These roles are concisely elucidated as: The strategy partner has manifold roles comprising business expert, change agent, & knowledge manager. The change agent which was titled as distinct role in the earlier model now becomes part of the strategy partner. The role of strategy partner is to assistance line managers to reach their objectives. Functional expert in this model is an extension of the traditional function of administrative expert. Its range now comprises the usage of technologies for administrative efficiency & is accountable for the HR practices delivery. Employee advocate is concerned with the employees. The employee advocate emphasizes on existing employees to make sure friendly relationship between employees & employers.

Human capital developer also deals with the employees. It lays importance on the future workforce, containing developing present employees for future development as well as obtaining appropriate workforce outwardly. HR leader controls the entire situation. The leadership is a function of all the above mentioned four roles. HR leader should set the relationships with each HR function, & oversee the entire HR community.

It can be established that HR function has moved its foundation from technology-oriented to strategy-oriented. The association of HR professional manager with line manager & the employees has also transformed. HR professionals as business associates have begun working in alliance of HR strategies with company strategies, & co-operating with line managers of other departments. HR professional is shaping the company at the strategy level; at the managerial level, he is working with Line Managers in a co-operative manner & at the operational level he has now no role to play. The line managers deal with the employees to implement the policies. They accomplish new tasks like planned development, talent development, etc. It is, therefore, generating values for the organization enabling its growth & opulence. The HR professionals today needs emphasis on the expansion of employees with potential & continually inspiration of their motivation. They deliver training & studying program to assistance workforce to reach new qualification level, keep competitive knowledge & skills, & maintain the progress of business (Gutierrez, 1995).

#### **Role of IT in HR**

**Recruiting:** One way in which human resources has been considerably impacted by technology is in the area of recruiting. Before the Internet, HR recruiters had to depend on on print publications, like newspapers, to post jobs & get prospects for open positions. Other means like networking also were used, but HR recruiters did not have the ability to post a job in one or more locations & have millions of people see it all at once. Technology has made recruiting more efficient and, in the hands of the right recruiter, more effective as well.

Training Information technology makes it probable for human resources professionals to train new staff members in a more effective manner as well. The capability to access company information & training programs from remote locations removes the requirement for trainers to work straight with new hires on all training. Some communication will always be essential on some level, of course, but training in computer-generated classrooms makes it conceivable for the HR professionals to train a large number of employees rapidly & to measure their progress through computerized testing programs.

**Data Storage & Retrieval:** Human resources professionals usually process a substantial amount of paperwork & also have to preserve much of that paperwork on file for a substantial period of time. The usage of electronic imaging has made it probable for organizations to store & retrieve files in an electronic format. Technology also makes it feasible for human resources professionals to just print the forms that are required for employees. Printing on demand removes the need to dig through an infinite number of files in the file cabinet to find what is needed.

**Performance Management:** Improved performance management is another by product of technological improvement. Human resources professionals can use computer technology to measure employee performance & also to get employee feedback to be used for the improvement of the company. Numerous software programs make it feasible for human resources professionals to study employee performance using metrics to ensure that employees are meeting performance standards. Employees that don't measure up can be exposed to extra training or let go in support a replacement who can come in and do the job.

**Ethics & Employee Rights:** Electronic investigation of employees by employers is a matter that pits a company's desire for control against an employee's right to confidentiality. The expansion of progressively

## International Conference on "Recent Trends in Technology and its Impact on Economy of India"

Guru Nanak College for Girls, Sri Mukstar Sahib, Punjab (India)

(ICRTTIEI-17)

24<sup>th</sup> October 2017, [www.conferenceworld.in](http://www.conferenceworld.in)

ISBN: 978-93-86171-74-0

sophisticated surveillance software only adds to the ethical dilemma of how far an organization should go in observing the behaviour of employees who do their work on computers.

**Paying Employees Market Value:** It's becoming harder today for companies to find & keep technical and professional employees. So numerous have applied an extensive list of attractive inducements & benefits rarely seen by non-managerial employees in typical organizations such as: signing bonuses, stock options, cars, free health-club memberships, full-time onsite caretakers, & cell phone bill subsidies. These enticements may benefit their receivers but there are disadvantages. One is the consequence these rewards have on others who don't get them. The other is the snowballing problem generated by stock options. Precisely, though they look very good when a company is growing & the stock market looks positively on the company's future, stock options can demotivate employees when circumstance turn negative.

**Communications:** The instructions of communication are being rewritten. Because these rules are planned around comprehensive, integrated information networks, communication is no longer constrained. Employees can communicate promptly anytime, with anyone, anywhere. At the Ford Motor Company, for example, all of its 400,000 employees were given a home computer & Internet access for \$ 5 a month. This allowed Ford Management to keep in close touch with its employees, & allowed employees to effortlessly communicate with each other & readily access company information & service. These open communication systems break down historical company communication pattern flows. They also redefine how activities likewise meetings, negotiations, supervision, & water-cooler talk are conducted. For example, virtual meetings permit people in geographically dispersed locations to meet frequently. Moreover, it's now easier for employees in Charlotte and Singapore to secretly share company gossip than for those offline employees who work two compartments apart. And employees in a number of industries even have web sites that are becoming electronic grapevines.

**Work-Life Balance:** A growing number of employees are putting in 12 hour days, plus working 6 & 7 days a week. Several of today's dynamic organizations seem to be at the front of the trend toward workplace cultures. These organizations are progressively expecting people to work 60 to 70 hours a week. Add in the ability of technology to blur the lines separating work & home plus the intense upsurge in two-career couples. People are progressively finding that work is squeezing out personal lives. And many are questioning this lifestyle. Balancing work life & personal life is probable to become one of the most significant approaching issues for HRM.

**Conclusion:** Information technology is probable to increase the performance of Human Resource Management (HRM) by shifting its emphasis from administration or personnel management to strategic HRM. The strategic role of HRM is supposed to enhance value to the HR function, & leads the spirit of HR function to transmute. Firstly, the HR professional is moving from operational level to strategic and managerial levels. Line managers have taken a significant part of HR function. Secondly, HR function transformation is a business process that changes the HR tasks & enlarges the participation of actors in HR function, and that makes HRM ponder more on strategic, value creating activities for the long-term business objective. Thirdly, HRIT is supporting & forcing the traditional HR function to renovate, & changes the way of management. Though, HR professionals need to pay consideration to deal with the disadvantages brought by HRIT, which may lead negative effect on both social interaction & information accuracy. From the above conversation, it is clear that technology has had

a positive effect on the inner operations of the companies. But it has also altered the way of human resource manager's work. They work in, & deliver support in what have become integrative communication centres. By connecting computers, telephones, fax machines, copiers, printers, robots & the like, information can be dispersed rapidly. With that information, human resource plans can be well enabled, decisions can be made quicker, jobs may be more evidently well-defined, & communications with both the outside community & employees can be improved. Today the world is free. In the free world, urbane technologies are regularly creating & connecting with the prevailing technology. This sophisticated technology puts new requirements on human resource managers. For example, human resource managers must ensure that employees could be talented to handle these technologies more effectively & efficiently. In order for human resource to encounter these objectives, they must prudently recruiting & selecting employees & train themselves in order to operate these sophisticated technologies. Side by side employees should improve their technological knowledge in order to get the job in the highly sophisticated technology reliant on world.

## **REFERENCES**

- [1.] Ashbaugh, S. & Miranda, R. (2002), "Technology for Human Resource Management: Seven questions and answers", Public Personnel Management, Sage Publication, 31(1).
- [2.] Beer, M. (1997), "The transformation of the human resource function: Resolving the tension between a traditional administrative and a new strategic role", Human Resource Management, 36(1).
- [3.] Broderick, R., & Boudreau, J. W. (1991). *Human resource management, information technology, and the competitive edge* (CAHRS Working Paper #91-19). Ithaca, NY: Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies.
- [4.] Helfen, M., Krüger, L. Information Technology, New Organizational Concepts and Employee Participation - Will Unionism Survive?. 202p. 07803-7824-0/02.
- [5.] Jenkins, M.L. and Lloyd, G. (1985), How corporate philosophy and strategy shape the use of HR information systems, *Personnel*, May, 28-38.
- [6.] Mohan Thite & Michael J. Kavanagh (2010), Evolution of Human Resource Management and Human Resource Information Systems" The Role of Information Technology", TMH.
- [7.] Kovach, K.A., Hughes, A.A., Fagan, P., & Maggitti, P.G. (2002), "Administrative and strategic advantages of HRIS", *Employment Relations Today*, 29(2).
- [8.] Ruel, H.J.M. and Bondarouk, T.V. (2008), "Exploring the relationship between e-HRM and HRM effectiveness: lessons learned from three companies", in Martin, G., Reddington, M. and Alexander, H. (Eds), *Technology, Outsourcing and HR Transformation*, Butterworth Heinemann, Oxford.
- [9.] Snell, S. A., Stueber, D. and Lepak, D. P. (2002). Virtual HR Departments: Getting out of the middle. In R. L. Heneman and D. B. Greenberger (Eds.), *Human resource management in virtual organizations*, Information Age Publishing.
- [10.] Storey, J. (1995), "Human resource management: still marching on, or marching out?" In Storey (Ed.), *Human Resource Management: A Critical Text*, Routledge, London.

## **International Conference on "Recent Trends in Technology and its Impact on Economy of India"**

**Guru Nanak College for Girls, Sri Mukstar Sahib, Punjab (India)**

**(ICRTTIEI-17)**

**24<sup>th</sup> October 2017, [www.conferenceworld.in](http://www.conferenceworld.in)**

**ISBN: 978-93-86171-74-0**

- [11.] Ulrich, D. (1997). Human Resource Champions: The Next Agenda for Adding Value and delivery Results. Harvard Business School Press, Boston
- [12.] Ulrich, D. (1997). Human Resource Champions: The Next Agenda for Adding Value and delivery Results. Harvard Business School Press, Boston [19] Walker, A.J. (1982). HRIS Development. Van Nostrand Reinhold, New York.
- [13.] VenkataRatnam, C. S. (1998), Multinational Companies in India. The International Journal of Human Resource Management 9(4) August. pp. 567-589
- [14.] Walker, A.J. (1982). HRIS Development. Van Nostrand Reinhold, New York.<http://smallbusiness.chron.com/technology-impact-hr-practices-37912.html>