USE OF TECHNOLOGY IN HR

PROF. RAJASHREE BHISE ,MR. ABHINAV ARORA ,PROF. CHETAN GAWALI, DR. CHETNA MEHTA PROF. PRAFULLA DHAR, PROF. AJIT SANE

ABSTRACT

In the past few years, it has been observed that organization are dependent on on technology in the field of Human Resources(HR). Every vertical of HR is using technology for the sake of better time management, efficiency in working, for being productive, handling the compensation, evaluating the employees, hiring the candidate through the online means etc. All of this require technology and in this qualitative study the author has tried to gather the technologies used in all the verticals, and there impact on the HR functioning and how Human Resource Information System(HRIS) is being used in the organization, and its effect on the overall functioning of the HR department. Over the years HR has moved from the lower level of management, administrative and maintenance work to a core business and strategic level, this was only possible as the technology came into existence, data analytics took decision making to another level, and HRIS has modified HR administrative work and enhanced the business.

Methodology

This descriptive research focuses on Secondary data. The secondary data is based on Journals, Magazines, Websites, Articles, Blogs, Reports on Technology in HR.

Objective

This study demonstrates on following objectives: -

- 1. To understand the use of technology in Human Resources and how is it beneficial for HR performance & Description of the second secon
- 2. To identify the technologies which are being used in HR for increasing the organizational performance.

Keywords

HR technologies, Performance, Productivity, Workforce analytics.

Introduction:

In the last decade, it has been observed that there is a significant increase in the number of establishments using Human Resource Information System (HRIS) for the collecting & analysing the HR data (Wat 2006, Hussain 2007). A lot of technology support various HR functions listed as:

- 1. E-Recruitment/ E-Enrolment/ E-Hiring/ E-Enlistment.
- 2. Employee Tracking System
- 3. Performance Management System
- 4. E-Learning
- 5. Compensation & Payroll
- 6. Effective Talent Management system

Human Resource use technology in order to enhance their strategic decisions, and also help organizations more productive, cost effective. Many researchers have stated that Use of HRIS would certainly help organization reduce the cost by automation of the processes and save time by reducing the monotonous work. In addition, this would reduce the number of HR professionals in an organization and work will be carried out efficiently and effectively. This would help in the listed ways:

- 1. Handling Employee personal data and documents
- 2. Managers have access to all the relevant data and information
- 3. Data analysis becomes a doable task
- 4. Making decisions which are data driven
- 5. Communicating with the workforce

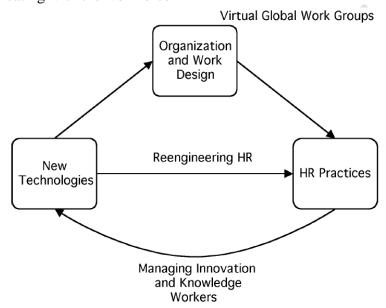


Figure 1

The perplexing Establishments among innovation and HRM outlined in Figure 1 make it vital for the HR calling to receive an all-encompassing perspective on the collaborations among innovation and HRM, instead of simply centre upon a restricted subset of these co-operations. Joined with the moving of the HR part from administrative help in assembling Establishments to vital management uphold in information Establishments, aptitude prerequisites for HR experts are evolving. To address the issues of the difficulties presented by this arising type of HRM, HR experts will require the accompanying wide capabilities:

- An authority of the conduct and mental establishment of HRM;
- A vital direction with expansive information on the legitimate climate and hierarchical structure and measures; and
- An arrangement and authority of the new advancements that are affecting the plan of Establishments, work, and HR frameworks.

Given the inclination to see HR as applied authoritative conduct (OB) (Kaufman, 1999), just as the accentuation upon the key parts of HR (e.g., Beatty and Schneier, 1997; Schuler and Jackson, 1987), the preparation and training of HR experts as of now underlines the initial two capabilities. In any case, as called attention to by Karakanian (2000), most corporate HR offices need huge numbers of the specialized essentials and abilities contained inside the third

competency. To meet the innovation competency, HR experts must obtain information and abilities identified with innovation.

Research Objectives: -

- 1. To understand the use of technology in Human Resources and how is it beneficial for HR performance & productivity.
- 2. To identify the technologies which are being used in HR for increasing the Establishment performance.

Analysis

Technology in E-Recruitment & Selection:

In the recent year's study, companies have started using internet as a major tool in hiring. E-Recruitment as a term be it online recruitment or e- enrolment, means that sourcing of job information is carried out using Internet. Hoffman 2001 defined that E-enrolment means that internet is being used for Sourcing of a candidate, selection of the candidate, communicating and managing the entire process of recruitment and selection. E-recruitment can be said as advertising of the jobs, getting resumes, collecting and maintaining database of the candidates and the incumbents.

Bussler 2002 & Davis 2002 stated that it has been clearly visible in the recent years that human resource is impacted by a huge margin via internet. The hiring of candidates have increasingly relied on the internet and the computer based technology advancements, which is also called as online hiring says Mottl & Hogler et al. 1998.

HR Portal 2003 gave another dimension that employer and employee can interact with each other using internet, which included downloading resumes, conducting tests, and also contacting valid and appropriate candidate in order to hire them using the power of online tools

Below listed are the benefits of the online hiring:

- 1. Considerably low cost of hiring
- 2. Chance to attract and hire better candidate.

Every organization require a job fit candidate for the organization and also a cost-effective and a quick system to access the candidate, which can be achieved by online tests, while if in case we need to hire that candidate wh need a highly competitive ecosystem says Chapman 2003. A way of achieving the desired goal they use internet to attract the candidates, Cullen, 2001. While taking things into practical aspect, is affirmed that e-human resource management is leading to a considerable change and hence should be considered as an valid and important development in the field of human Resources (Snell 1998, Gueutal 2005). (Grossman & Pomerory 2000) The attraction of the potential candidates and make them accept the job has given a important role the E-recruitment is playing in the organization's success.

Techno-Communication:

Technology in the communication is pretty much essential as all of the human resources functions and policies are available through intranet. Formulation of any new policy and function is delivered and well communicated with the help of intranet (Elderman 2004). Furthermore it becomes easy to refer, retrieve and revamp any policy at any point in time,

and saving valuable time for any candidate seeking to refer a policy. Whereas, and intranet also allow to connect through other departments in order to retrieve the required information and there exist no longer the need to go physically or try calling through phones. Keeping aside the passing of the job related messages and e-mails, this also used in sending messages, birthday wishes, retrieving e-mails from any date and transferring it to the inbox. In addition, it helps the employer to maintain the employee record and entire database that auto generates the birthday message. In addition, it selected the e-mail address from the database and auto generates the message, the employee receiving a birthday wish from the senior manager as soon as he/she opens the mailbox, gives the employee a feeling of satisfaction and ownership (Thomas 2007 & Datta 2007).

There is a entire cycle which is derived by HRIS when a new employee is on boarded, The mail is generated to inform the security about the new employee, even the switchboard is checked with the same, and legal department is notified about any compliance or any registration issues.

"Employee Suvidha" Indian Oil's most promising feature, stated by Datta and Antony 2007. It drives the listed features:

- Employee Leaves
- Taxation
- Loan & Loan statement (Housing/Car)
- Overtime
- Payslip
- PF statement
- IT Card

This saves a lot of time of the HR personnel, whereas earlier it took a lot of time answering the queries from the employee.

Some features which are exercised by the organization using technology.

- 1. low expense rate
- 2. Availability and accessibility to more information
- 3. Good employee interaction
- 4. Better and quick communication
- 5. Better feedback system
- 6. Documentation made easy
- 7. Intra department cooperation.
- 8. Better FGD's (Focus group discussion)

Technology in Workflow advancements(Business Process Management):

Workflow management is significant capacity under the representative access choice segment, with the help of Workflow technologies an individual could do it can easily designate an affirmation process for any changes that might happen in the process Scroggin 2008. It can be understood through an example, a representative solicitations downtime, the chief at that point may affirm or object this time, on the off chance that they endorse it, the data may move to HR to make a last endorsement. In the event that the director is out of the workplace, they will commonly have the ability of assigning a transitory approver while they are out.

Technology and Applicant Tracking Systems:

Establishments are continually confronting a day by day competition of wild rivalry for presented resources while offsetting that with decreases in recruitment financial plans and reducing quantities of resources to direct the recruitment cycle. "Workplace trends" which was published in 2008 by the society of HRM suggest/indicates that:

- 1. Higher demand for the skilled workforce.
- 2. E-recruiting tools are in demand.
- 3. Higher competition for a decreasing workforce supply.
- 4. Higher growth of Apps providers.
- 5. Higher BPO that includes Recruiting.
- 6. Higher use of assessment tools in recruitment & selection process.

Technology in Performance management system (PMS):

Performance management system is a very streamlined process, evaluation of any employee required a systematic approach. As the technology is driving every vertical in the organization, PMS tools are being used in almost every organization. With is the Employer branding is been taken care of as, HRs are able to carry out the effective people relationship management (Vasundhara 2007). Performance management system software is used to carry out listed functions:

- 1. Employee Evaluation
- 2. E-Mail reminders
- 3. Competency Mapping in accordance to organizational goals
- 4. Personal and Professional Management strategy
- 5. Productivity report generation
- 6. Automation of Performance management workflow/System.

"Performagic" is Infosys's BPO online Performance Management system; this automates the entire process of PMS itself. The tool was developed by Infosys Tech. moreover it is used entirely by Infosys group of company; well this tool is accessible only two times a year when appraisal has to happen. It is linked in between the departments and is accessible through intranet, so that there exists transparency in the organization. In addition to this, it also performs:

- 1. Appraisal feedback capturing & analysis.
- 2. Past records of the performance.
- 3. Comparative analysis of current and past performance.
- 4. Confidentiality of the forms and policy is maintained
- 5. Can trace appraisal at any given point in time.
- 6. Transparency and effective time management.

Technology in Compensation & Pay Roll:

The function of the payroll model is to automate the entire payroll process via collecting all of the employee data like employee attendance, reporting time, deductions, taxation and this helps in generating the entire pay-checks and taxation reports. While data is entered by the HR Admin, it save the time in generating the above mentioned reports which is a good move altogether says Partho 2005. Human Resource management system solution INC 2007 mentioned that the payroll initiated the accounting information and send it to the general ledger to finally make a complete pay cycle. Doing all of such reports on demand, making the

last minute changes without any hassle is the biggest advantage, also it saves a lot of time and the accuracy is maintained. Flexible features are listed as:

- 1. Simplified compensation processing
- 2. Comprehensive reporting
- 3. Check printing
- 4. Direct Deposit
- 5. Expense Management
- 6. Earning.

Technology Trends and technological Implications

Along with the HR functional Area trends and technology have brought great attention to the management implications to the business decisions and strategic layouts, some of which are listed as:

- Talent acquisition function is more reliable on e-recruitment.
- Internet usage for delivery and utilization of human resource application services.
- E-learning is practiced more.
- HR Data privacy is a major thing to look into.
- Better usage of time and resources.
- Basic Human resources transaction are made strategic application using HRIS software/application.
- Experiencing more outsourcing of HRISs.
- ROI is being calculated for human resource technology systems.

Conclusion

The main objective of this particular research was to observe the impact of technology on the Human Resource management system and Human Resource Information System on HR and Business Excellence. It was observed that, as the technology came into function the workload got reduced and HRs were able to focus more on the strategic role than just support function. Also HRIS was used as the strategic tool and was used in optimization of the workflow and the work procedures. While both specific HR programming and HRIS have its worth, HRIS directs the path toward the future by improving cycle efficiencies as well as making HR a genuine colleague, permitting one to help drive the association toward reasonable, long haul business achievement. In this manner, HRIS can assume a functioning part in vital business greatness developments. Utilizing innovation choice in this manner has given chiefs fast admittance to job significant data, and a proficient stage to scatter such data to its workers that further to improve more prominent productivity, viability, consistency, competency, association adaptability, and client - centre and benefit duty on the loose. Utilizing high innovation hence may prompt both Human Asset and Business Greatness across areas and ventures.

References

- Antony, R. & Datta, S. (2007). HRIS and Employees Services, Indian Oil Experience, Conference Proceedings, IHRD HR Summit, Bangalore.
- Awazu, Y. & Desouza, K. C. (2003). Knowledge Management. *HR Magazine*, 48(11), 107.

- Ball, K. S. (2001). The Use of Human Resource Information Systems: a Survey. *Personnel Review*, 30(6), 667-693
- Barber, A. E. (1998). Recruiting Employees: Individual and Establishmental Perspective, Sage Publications, Thousand Oaks, and CA. 8.
- Barron, M., Chhabra, D., Hanscome, R. & Henson, R. (2004). Exclusive Panel Discussion: Tips and Trends in HRIS. *HR Focus*, 81, 6-7.
- Beckers, A. M. & Bsat, M. Z. (2002). A DSS classification model for research in human resource information systems. *Information Systems Management*, 19, 41-50.
- Breaugh, J. A. (1992). Recruitment: Science and Practice, Boston: PWS-Kent.
- Brockbank, W. & Ulrich, D. (2000). Competencies of New HR. Arlington, V.A: Society of Human Resource Management.
- Brown, D. (2002). EHR Victim of Unrealistic Expectations. *Canadian HR Reporter*, *15*(16), 1-6.
- Bussler, L. & Davis, E. (2002). Information systems: The quiet revolution in human resource management. *Journal of Computer Information Systems*, 42(2), 17–20.
- Casper, R. (1985). Online Recruitment. Personnel Journal, 64(5), 4-5.
- Cedar Enterprise Solutions, Inc. (2004). Cedar 2004 workforce technologies survey, 7th annual edition. Retrieved on Décembre 10, 2008.
- Chapman, D. & Webster, J. (2003). The Use of Technologies in Recruiting, Screening, and Selection Processes for Candidates. *International Journal of Selection and Assessment*, 11(2/3), 113-20.
- CIPD. (1999). The IPD Guide to using your computerized Personnel Effectively, IPD, London.
- Cullen, B. J. (2001). Winning the War for Talent: E-recruiting Best Practices, Cambria Consulting, and Boston, MA.
- Edelman, D. (2004). Engaging your Employees in New Technology Launches. Employee Thinking November 2004.
- Faiz, A. (2001). Leveraging IT in HR. Indian Express Newspapers (Mumbai) Limited.
- Gallagher, S. (1997). Human Resource Management Software, Conspectus, PMP (UK) Ltd.
- Gara, S. J. (2001). How an HRIS can impact HR: a complete paradigm shift for the 21st century. Society for Human Resource Management (SHRM) White Paper, Retrieved November 17, 2002, from http://www.shrm.org/ whitepapers/documents/default.asp? page=630 01.asp
- Gatewood, R. W., Gowan, M. & Lautenschlager, G. (1993). Corporate Image, Recruitment Image and Initial Job Choice Decision. Academy of Management Journal, 36(2), 414-22. 34.
- Gentner, C. (1984). The Computerized Job Seeker. *Personnel Administrator*, 29(8).
- Gourley, S. & Connolly, P. (1996). HRM and computerized information systems have we missed a link? Paper presented at conference strategic direction of HRM
- Greer, C. (1995). Strategy and human resources: A general managerial perspective. Englewood Cliffs, NJ: Prentice Hall.

- Grossman, R. J. (2000). Measuring Up: Appropriate Metrics Help HR Prove its Worth. *HR Magazine*, 45(1), 28-35. 38,
- Gueutal, H. G. & Stone, D. L. (2005). The Brave New World of eHR: Human Resources Management in the Digital Age, Jossey-Bass, San Francisco, CA. 40].
- Hannon, J., Jelf, G. & Brandes, D. (1996). Human resource information systems: operational issues and strategic considerations in a global environment. *International Journal of Human Resource Management*, 7(1), 245-269.
- Hoffman, I. (2001). Knowledge management tools. In K. Mertins, P. Heisig, & J. Vorbeck (Eds.), Knowledge management: Best practices in Europe, 74-96.
- Hogler, R. L., Henle, C. & Bemus, C. (1998). Internet recruiting and employment discrimination: a legal perspective. *Human Resource Management Review*, 8(2), 149-164
- HR Magazine. (2008). HR Screening Technology Trends and Fast Facts, Cited in Need for New Screening Technology, Harquen Voice Screener, Online document.
- HR Portal. (2003). Introduction to Online recruitment, http://www.hrmguide.co.uk/recruitment/ introduction_to_online_ recruitment.htm Accessed date: 5 April 2003.
- HRMS Solutions INC. (2007). Sage Abra Payroll In-house Payroll Software, NW Washington. Retieved from URL: www.hrmssolutions.com.
- Human Capital Management. (2009). Global PeopleSoft HRMS upgrade, Infosys Technologies Limited. Online Publication.
- Huselid, M. A. (1995). The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance. Academy of Management Journal, 38(3), 635-672.
- Hussain, Z. I. (2002). An investigation into the Strategic Use of Personnel Management Information Systems (PMIS) by Human Resource (HR) Managers, Master's Thesis, Sheffield Hallam University, UK.
- Hussain, Z., Wallace, J. & Cornelius, N. E. (2007). The Use and Impact of Human Resource Information System on Human Resource Management Professionals. *Information and Management*, 44(1), 74-89.
- Karthik, F. (2007). HR Practice in 24/7. Citation: Paper Presented in Bangalore HR Summit 2007 on Dec. 7 & 8, (2007) at Le Meridien, Sankey Road, Bangalore-52. India.
- Kossek, E. E., Young, W., Gash, D. C. & Nichol, V. (1994). Waiting for innovation in the human resources department: Godot implements a human resources information system. *Hum. Resource. Manage.*, 33, 135-159.
- Kovach, K. A. & Cathcart, J. & Charles, E. (1999). Human Resource Information Systems (HRIS): Providing Business with Rapid Data Access, Information Exchange and Strategic Advantage. *Public Personnel Management*, 28(2), 275-282.
- Lengnick-Hall, C. A. & Lengnick-Hall, M. L. (2006). HR, ERP, and knowledge for competitive advantage. *Human Resource Management*, 45(2), 179–194.
- Lengnick-Hall, M. L. & Moritz, S. (2003). The Impact of E-Hr on the Human Resource Management Function. *Journal of Labor Research*, 24(3), 365-79.

- Lepak, D. P. & Snell, S. A. (1998). Strategic Human Resource Management in the 21st Century. *Human Resource Management* Review, 8(3), 215-34.
- Leslie, A. W. (2005). HR Technology: Leveraging the Shift to Self-Service-It's Time to Go Strategic, HR Magazine, March 2005, downloaded from Infotrac at http://web7.infotrac.galegroup.com
- Liff, S. (1997). Two routes to managing diversity: individual differences or social group characteristics. *Employee Relations*, 19 (1), 11-25.
- Lilly, F. (2002). Web-based training: Moving from c-learning to e-learning [SHRM White Paper]. Retrieved December 8, 2004, from www.shrm.org/hr resources/whitepapers published/CMS_000217asp. P-40.
- Mayasoman, T. (2007). Performance management, Citation: Paper Presented in Bangalore HR Summit 2007 on Dec. 7 & 8, (2007) at Le Meridien, Sankey Road, Bangalore-52. India.
- Mercer Human Resource Consulting. (2004). Transforming HR for business results: A study of US Establishments. Retrieved December 18, 2004, Retrieved from www.mercerhr.com/referencecontent.jhtml?idContent=1119865.
- Mottl, J. (1998). Want to find workers? Go online many IT job seekers flock to the Web; managers may soon follow. *Internet week*. 728, 20-21.
- Nakache, P. (1997). Cisco's Recruiting Edge. Fortune, 136(6), 275-6.
- Ngai, E. W. T. & Wat, F. K. T. (2006). Human Resource Information Systems: A Review and Empirical Analysis. *Personnel Review*, 35(3), 297-314.
- Othman. R. & The, C. R. & The, C. (2003). On developing the informated work force: HRM issues in Malaysia. *Human Resource Management Review*, 13(3), 393-406.
- Overman, S. (1992), Reaching for the 21st Century. HR Magazine, 37, 61-63.
- Partho, P. C. (2005). A Realistic of Human Resource Management Systems (HRMS), 1-3. Citation: Faculty article, www.indianmba.com. (Retrieved on February 2007).
- PeopleSoft, Inc. (2003). Heads count: An anthology for the competitive enterprise. Pleasanton, CA: PeopleSoft, Inc.
- Pomeroy, A. (2000). Ema Keynote Speaker Says Recruiters Must Declare War. *HR* News, *19*(6), 1-16.
- Rekhi, S. (2001). Human Resource Information System. Citation: Paper Presented in Bangalore HR Summit 2007 on Dec. 7 & 8, (2007) at Le Meridien, Sankey Road, Bangalore-52. India.
- Rynes, S. L. (1991). Recruitment, Job Choice, And Post-Hire Consequences: A Call For New Research Directions, in Dunnette, M.D. and Hough, L.M. (Eds), *Handbook of Industrial Establishmental Psychology*, 90, 399-444.
- Sara, G. (2008). Applicant Tracking System, Article Alley. Retrieved from http://www.articlealley.com/article_589557_36. Html (Retrieved on February 2007).
- Schreyer, R. & McCarter, J. (1998). The Employers Guide to Recruiting on the Internet Impact: Virginia: Impact Publications Manassas Park.
- Scroggin, C. (2008). HRMS Software Employee Self Service (ESS) Defined. HRMS Software Employee Self Service (ESS) Defined EzineArticles.com. Retrieved from

- URL: http://ezinearticles.com/?HRMS-Software---Employee-Self-Service-(ESS)-Defined & id=1643062 (Retrieved on March 2009).
- Sing, S. (2006). IT for Establishmental Excellence, faculty article, www.indianmba.com. 1-2. (Retrieved on March 2008).
- Snell, S. A., Stuebner, D. & Lepak, D. P. (2002). Virtual HR departments: Getting out of the middle. IN R.L.Henneman, D. B. G. (Ed.) Human Resource Management in virtual Establishments. Greenwich, Information Age Publishing.
- Tannenbaum, A. (1990). HRIS: user group implications. *Journal of Systems Management*, 41(1), 27-32.
- Temple, P. (2000). Technology on the fly. Workforce (May issue), 10.
- Thomas, A. & Datta, G. (2007). Technology in Employee Communication: Indian Oil perspective.
- Turban, D. B. & Greening, D. W. (1997). Corporate Social Performance and Establishmental Attractiveness to Prospective Employees. *Academy of Management Journal*, 40(3), 658-72. 100].
- Tyson, S. & Selbie, D. (2004). People processing systems and human resource strategy. *International Journal of HR Development and Management*, 4(2), 117-127.
- Ulrich, D. (1997). Human resource champions: the next agenda for adding value and delivering results Boston: Harvard Business School Press.
- Vasundhra, S. (2008). Performance Appraisal System: Citation: Paper Presented in Bangalore HR Summit 2007 on Dec. 7 & 8, (2007) at Le Meridien, Sankey Road, Bangalore-52. India.
- Venkatesan, H. (2001). Leveraging IT in HR, Indian Express Newspapers (Mumbai) Limited. Report, Retrieved on December 15th, 2008.
- Walker, A. J. (1982). HRIS Development, Van Nostrand Reinhold, New York.