Information Technology and Its Role in Human Resource Management: A Study on the Use of Applicant Tracking System

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Abstract:
The e-HRM revolution relies on cutting-edge information technology, ranging from Internet-enabled Human Resources Information Systems (HRIS) to corporate intranets and portals. The driving forces are intensifying competition, need to manage workforce on a global level, to improve HR service delivery and to bring cost savings. Applicant Tracking System is one of the emerging areas of application of IT in HRM. Today, HR is not treated as a single function. It’s a collection of highly specialized capabilities each with distinct objectives, tasks and needs. There is an ever-increasing pressure on Human Resource (HR) function to support strategic goals and to focus on value adding activities. Organizations have realized the growing importance of using Information Technology (IT) in leveraging their Human Resource (HR) functions. This takes the form of e-HRM (Electronic Human Resource Management). This paper investigates the use of Applicant Tracking System (ATS) in asmall-sized enterprise. The study provides insights into a framework of e-HRM and Human Resource Information System (HRIS) with reference to recruitment as exist in the SME, along with its benefits and limitations. It discusses the impact of ATS on HR process, professionals and jobseekers while suggesting a model of Human Resource Information System (HRIS) based on the operation of ATS. It attempts to identify implications for future research in this field.

Key words: Applicant Tracking System, Electronic Human Resource Management (e-HRM), Human Resource Information System (HRIS), Recruitment.

I. INTRODUCTION

At present, information technology is widely used in various areas of Human Resource Management. Nowadays, more and more SMEs have started to use information technology in their Human Resource Management functions to optimize their management and improve their efficiency. This paper explores the role of Information Technology (IT) in HRM precisely in the recruitment function of the small sized enterprise under study with reference to the use of Applicant Tracking System (ATS). Small and Medium-sized Enterprises (SME) are recognized as a significant part of the both developed and developing economies. For developing economies like India they are especially important as SMEs play vital role in poverty reduction through employment generation. In the past, HRM research focused mainly on large firms but of late, researchers have taken due cognizance of HRM in SMEs. Conceptual & Contextual Framework: Conceptual Foundation According to Leon C. Megginson (1985) Human Resources Planning is “an integrated approach to performing the planning aspects of the personnel function in order to have a sufficient supply of adequately developed and motivated people to perform the duties and tasks required to meet organizational objectives and satisfy the individual needs and goals of organizational members.” Job Analysis: According to DeCenzo & Robbins (2006) “Job Analysis is a systematic exploration of the activities within a job. Modern Methods-Online recruitment, e-recruitment, or web-based recruitment (the use of online technology or the internet to attract candidates) Recruitment through Job Posting: Finding the right job to suit jobseekers’ needs, talents, and abilities can be a very intense and extensive process. Job hunters must often pass through many employment hurdles before they can get employed. Finding the right person to fill a job opening can be equally difficult for an employer. One of the methods used to bring both together is a job posting (http://www.ehow.com). It defines and documents the duties, responsibilities and accountabilities of a job and the conditions under which a job is performed.” Job analysis is the process of studying and collecting information relating to the operations and responsibilities of a specific job. The immediate products of this analysis are job descriptions and job specifications. Hence, job analysis can be described as a process of collecting information about a job. There are two components of Job analysis which are following: Job Description: A list of a job’s duties, responsibilities, reporting relationships, working conditions, and supervisory responsibilities – one product of a job analysis. Job Specifications: A list of a job’s “human requirements,” that is, the requisite education, skills, personality and so on-another product of a job analysis. Recruitment is the process of identifying and attracting potential candidate from within and outside an organization to begin evaluating them for future employment. Once the candidate is identified, an organization and begin the selection process. This includes collecting, measuring, evaluating information about the candidates’ qualifications for specified . Organizations use these processes to increase the likelihood of hiring individuals who possess the right skills and abilities to be successful at their jobs. Recruitment through employee referral, consultancy,
advertisement, transfer, promotion etc. Place to Post: Traditional Method- Job postings may be posted in a wide variety of places in the trade journals, alumni magazines and even on bulletin boards on schools and in libraries. Modern Methods- Online Job Postings The job posting may include information about where and when to contact the employer and may also include the employer’s phone number or website. According to Strohmeier (2007) “e-HRM is the planning, implementation and application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities”. E-recruitment is defined as the use of internet to attract potential employees to an organization, that can include the use of an organizations own corporate website as well as the use of commercial job boards (Parry, 2006). Chapman and Webster, (2003) shows that E-recruitment manages job descriptions and job vacancies, search for candidates and the interview process. It is also referred to as an applicant-tracking system; a web-based application that enables the electronic handling of organizational employment needs. These activities include posting job advertisement on web sites to stimulate and attract candidates, known as job boards. Job boards allow candidates to apply on-line and the candidates’ data are stored on a database that allows searching, screening and filtering of applications. The application tracking system shortlists the candidates and arranges for interview and recruitment-related activities (Sharma, 2012). A comparative study of Traditional and E-Recruitment will give better understanding of the process under study Traditional versus contemporary approaches to Recruitment Process Traditional E-Recruitment Attracting Candidates Using sources that are not technology supported, like advertisement, flyers, spokespersons, to draw as many applicants as possible to contact the organization. Using the organization’s reputation product image, online technology and other methods to draw as many as possible to the organization’s websites. Their organization can present themselves. Sorting Applicants Using paper-based test for applicants to create a manageable applicants pool Employing sophisticated, standardized online tests to screen candidates and to winnow the applicant pool to a manageable number Making Contact Contacting the sorted applicants by phones and having face to face conversations Using automated hiring management system to contact the most desirable candidate very quickly, before they are snapped by another company Closing the Deal Making the phone call, setting up the meeting and shaking hands Making the phone call, setting up the meeting and shaking hands (Kapse et al, 2012). Human Resource Information System (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). Functionally the Human Resource Information System (HRIS) is a software or online solution for the data entry, data tracking, and data information needs of the Human Resources, payroll, management and accounting functions within a business. Normally packaged as a data base, every HRIS has different capabilities. Companies are to choose HRIS carefully based on their capabilities and need. Typically, the better The Human Resource Information Systems (HRIS) provide overall: a) Management of all employee information. b) Reporting and analysis of employee information. c) Company-related documents such as employee hand book, emergency evacuation procedures and safety guidelines. d) Benefits administration including enrollment, status changes and personal information updating. e) Complete integration with payroll and other company financial software and accounting systems. f) Application tracking and resume management (Sharma, 2012). An Applicant Tracking System (ATS) is a software application that enables the electronic handling of recruitment needs. At the enterprise level it functions as a module or functional addition to Human Resource Information System (HRIS). Most of the reputed business organizations use some form of applicant tracking system to handle job applications and to manage resume data The ATS is now expanding into small and medium enterprises through open source or software as a service offerings (SaaS). The principal function of an ATS is to provide a central location and database for a company’s recruitment efforts. ATSs are built to better assist management of resumes and applicant information. Data is either collected from internal applications via the ATS front-end, located on the company website or is extracted from applicants on job boards. The majority of job and resume boards (Monster, Hotjobs, Career Builder) have partnerships with ATS software providers to provide parsing support and ease of data migration from one system to another. Recent enhancements include use of artificial intelligence (AI) tools and natural language processing (NLP) to facilitate intelligent guided semantic search capabilities offered through cloud based platforms that allow companies to score and sort resumes with better alignment to the job requirements and descriptions. Modern ATSs allow applicants to be sourced from the company’s own database of past job applicants (http://en.wikipedia.org). Contextual Framework Following diagram depicts contribution of HRIS to HR process or precisely HR planning through the two systems: HRIS recruiting and HRIS training and development. HRIS recruiting subsystem represents the functionalities of HRIS job analysis, e-recruiting and skill inventory.

II. LITERATURE REVIEW

IT is beginning to enable organizations to deliver state-of-the-art HR services, and reduced costs have enabled companies, regardless of the firm size-to purchase rather opt for HR technologies (Ball, 2001).The wide reach of the Internet and other ITs can help SMEs overcome their size disadvantage (Oviatt & McDougall, 1995). SMEs are less inclined towards adopting modern methods of hiring, which is why candidates have less information about the available job opportunities across the board (Kishore 2012). Human Resource Information Systems (HRIS) refers to the systems and processes at the intersection between human resource management (HRM) and information technology (Kovach & Cathcart, 1999). In its most elementary form HRIS is a system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information about an organization’s human resources. Lengnick-Hall and Moritz propose, along with others (Walker, 2001), that HRIS will create informational efficiencies and cost savings in such a manner that HR departments can turn their attention to providing better analysis of current data. The current generation of HRIS automates and devolves routine administrative and compliance functions traditionally performed by corporate HR departments (Barron et al., 2004). Recruiting and attracting talent is a challenge particularly in this era of globally competitive market. The biggest challenge is to apply & utilize this technological advancement to its fullest potential for the procurement of
human resource. IT and internet based recruitment functions like 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, Gardner et al. 2003). Online recruitment is effective in terms of speedy information collection of applicant, giving detailed and uniform data to the applicant sand time saving (Internet Recruiting: Is It Right for you, July 2001). This finding is further supported by Hopkins & Markham (2003) study which argues that to speed up the recruitment process, online recruitment is considered as the best practice. Online recruitment is also effective in terms of performing talent management process (Burbach & Royle, 2010). Over the last decade there has been a considerable increase in the number of organizations gathering, storing and analyzing information regarding their human resources through the use of Human Resource Information Systems (HRIS) software or other types of software which include HRIS functionality (Ball, 2001; Barron, Chhabra, Hanscome, & Henson, 2004; Hussain, Wallace, & Cornellius, 2007; Ngai & Wat, 2006). An extensive body of literature exists on the usage, adoption, and implementation of IT (Seyal, et al 2000). One area receiving little attention in the research on successful IT use is HRM practice (Othman, Teh, 2003). There is dearth of study on use of ATS that too in SMEs. Profile Of The Company Underfo Study Tech Tough (P) Ltd (name changed) has been incorporated by a founding team of former executives from Google and co-founders of reputed Indian companies. With three different business verticals, they have expanded their wings in Fashion & Ecommerce, Corporate merchandising and Business & IT Consulting. Campus Gift(name changed) provides innovative corporate gifting ideas, office stationery and also helps the customer to elevate its ordinary office gathering into a team event or help the customer flaunt its campus colors with customized apparels. They have a strong team of seasoned professionals who bring their past experiences, learning and implementations to company’s current clients. Campus Gear brings a large variety of promotional products to choose from. They help the customers in making a wise decision for choosing the items that can help in establishing brand values and brand image in companies or a sense of belonging and team spirit on campus. a holding under the group company Tech Tough (P) Ltd., aims to build some of the most coveted fashion brands of recent times. They are at the cross roads of the next stage with our women’s lifestyle brand Miss Charismawhich aspires to be the quintessential global online destination for fashion-forward women. They create a full range of exceptionally trendy apparels, lingerie, footwear and accessories and sell it without the traditional retail markup. Through Ascent(name changed), the Business & IT Consulting vertical of the group, the focus is on building businesses online. Ascent provides the services like Web Development, Web Designing, Digital Marketing, Search Engine Optimization etc., they maximize returns in a cost effective manner. (A) Organization Structure As Tech Tough (P) Ltd is a startup company it has fewer levels of hierarchy. This structure results in quick communication. People have freedom to choose and control their activities. It has a wide span of control giving rise to a flat organizational structure. Chart 1: Organization Structure Source: Authors’ research Tech Tough (P) Ltd focuses more on cross functional activities giving away the concept of working in a particular department. There is more of transparency and lateral communication. All employees work together to achieve the organization goal. (B) Organization Culture Tech Tough (P) Ltd recognizes talent and acumen and thus utilizes it for better productivity. The proficient and qualified personnel working in Tech Tough offer customized and user friendly solution to every specific need of clients. Everyone of the organization has decision making authority which at times is harmful and may lead to conflicts. Company holds a meeting every Wednesday which is called the “ALL TOGETHER” where the entire employee along with the HODs and CEO of the company are present. This meeting is held to discuss about the progress during the entire week or any issues the employees have. As it is new in the market the company is very risk aversive. Chart-2: Recruitment Process of the Company

III. BACKGROUND

The company under study being a start-up could not maintain the job applicant records in a systematic manner. Only the rough data was entered in an excel sheet. As it was getting difficult to track the candidate since the number of candidates was increasing there was a need of systematic Applicant Tracking System. Traditional method of receiving resumes of different file formats, picking up details and manually entering them into the Candidate Database is both time consuming and a difficult task. Therefore the management of the company decided to use for free online software for systematic record keeping and scheduling of candidates. After through search finally Zoho Recruiting system was chosen for this purpose. Accordingly its features were tested and an account was opened in the company’s name with a user ID and password.

Objective

1. To study the system of applicant tracking through the free applicant tracking software (Zoho Recruit) in the organization under study.
2. To understand the implications of the use of aforesaid system of applicant tracking on the recruitment process of the organization.

Use of zoho applicant tracking system

ZOOH Recruit- A simple Applicant Tracking System (ATS), which has been used in the small scale organization under study provides an easy, collaborative and inexpensive ATS that empowers recruiters with a complete Applicant Tracking functionality in every step of staffing and recruiting process, right from sourcing to hiring candidates. It is a quite useful ATS for staffing and hiring, to acquire, screen, assess and position candidate in a short span of time.

Benefits of using ZOHO Recruit (Online ATS)

1. Gives 360-degree view of the clients, contacts, candidates and requisitions.
2. Automates the recruitment process.
3. Provides solution for both staffing agencies and corporate HR’s.
4. Gives value to the time and handles the entire recruiting process.
5. Helps to acquire right talent faster than ever.
6. Manage our clients, contacts, candidates in a single central database.
7. Improves the hiring efficiency of the business.
8. Simple and best ATS to make the best decisions.
9. Gives a visual indication of recruitment tracking.
10. Customize to match the user organization’s needs.
11. Value for money compared to other ATS.
12. No more downloads- Zoho Recruit is a Saas ATS
13. Web-based ATS that keeps everyone updated on the progress.

IV. FEATURES

Candidate Sourcing- Zoho Recruit- ATS, helps the user company to gather resume from different sources. The company can reach many candidates and filter them based on its needs. This improves the quality of company’s resume database.

Resume Parsing- Extract multiple resumes from documents, email attachments, folders, job portals, social sites, Google search results etc and get the candidate details along with the original resume attached into Zoho Recruit candidate database. Deleting a candidate using ATS Chart-10: Scheduling an interview using ATS Zoho Integration Zoho Resume parser Add-on helps Corporate HR’s, Recruiters and Staffing Agencies to parse multiple resume file types (DOC, DOCX, PDF, RTF, TXT and HTML) from organization’s system hard-drive and automatically store the candidate details into Zoho Recruit’s candidate database. This reduces the resume process to a vast extent and helps recruiters to spend more time on other recruiting activities.

Key Features 1.Extract the candidate details from local system and feeds the information directly into Zoho Recruit’s candidate database 2.Maps the field automatically Copy of actual resume gets attached to the candidate info during resume parsing 4.Supports multiple file formats viz, DOC, DOCX, PDF, RTF, TXT and HTML Benefits 1.Reduces the resume process 2.No more manual entry 3.Saves time and man power 4.Increased efficiency and effectiveness Drawbacks 1.There is no option to view mail. It only shows parsed and failed resumes. 2.It parses each and every attachment. So at the end it uses all the credits available Findings & Discussions (A) Assessment of ATS from Various Perspectives Assessment of ATS as a Process: Benefits of ATS 1.Reduces recruitment related costs 2.Reduces time for recruitment administration and hiring 3.Streamline the entire recruitment process and ensure best practices 4.Effective Management of travel expenses, background checks other miscellaneous recruitment related activities 5.Increase retention and productivity (by way of Increasing the Quality of Hire) 6.Improves communication internally and externally and internal mobility within an organization 7.Reduces the paperwork in the recruitment process 8.Automation of requisition approval process for recruitment 9.Facilitates better manpower planning and budgeting 10.Creates a strong database for the future 11.Creation of database for just in time recruiting of candidates 12.Saving time in finding candidates and stops duplicating submissions 13.Promotes the brand of employer and marketing through job postings 14.Developing Talent intelligence to be able to make informed decisions, especially as it relates to the critical skilled positions 15.Crystallize organizations sourcing strategies by identifying the areas yielding best results from search efforts and the data support

Critical in management of an internal or external recruitment staff.

16. Establishing direct access to social media portals.

Demerits of ATS
1. ATS only looks for resumes that meet the exact requirements of the position. Therefore recent college graduates, borderline candidates or those switching careers will be at a disadvantage, and the resumes that the recruiter is left with will be from a very limited job seeker audience.
2. Automated systems are often unreliable and can reject resumes for unnecessary reasons, such as if the scanner is unable to read them properly. Some resumes received will be more complicated to read and oftentimes such systems are unable to correctly read them.
3. Some applicant tracking systems limit the information applicants can provide, due to character restricted application fields. This may lead to eliminate a perfectly suitable candidate for the position.

Assessment of ATS from Employers’ Perspective Abundance of applicants- As the internet is accessible to people all over the world, the employer is likely to get swamped with resumes from interested candidates. Inflated resume keywords- Employers rely upon the ATS to locate resumes that include relevant keywords, thus there is a strong possibility that certain keywords in a vast majority of job applicant’s resumes are exaggerated. Some candidates purposely stuff his/her resume with keywords so that their resume is selected by the system. Therefore, recruiters are deceived into calling applicants for interviews that do not meet the job requirements. This is a waste of time, for both the applicant and the employment recruiter. Overestimate applicant- it’s difficult for a company recruiter to determine whether or not an applicant is the right fit for a job without meeting him/her face-to-face. A candidate can have all the right credentials on paper but still may not have the right character for the company. The most effective way to determine if an applicant is suitable for a particular job and right fit for the company is to meet with him/her face-to-face in an interview. Outdated job postings- occasionally, human resource representatives fail to remove old postings for the positions from the websites that have been filled. Sometimes this due to miscommunication between the hiring manager and HR or a glitch in the system. Recruiters get swamped with resumes for jobs that are no longer open. However, employers will continue to get flooded with resumes from interested applicants until the posting is removed.

Assessment of ATS from Job Applicants Perspective
Many jobseekers attest that looking for a job online lacks a personal touch. Jobs seekers want to be able to talk to someone via phone or face-to-face should they have questions about the company or the job they are interested in applying for. Job seekers claim employers are so inaccessible and display very little or no human interaction. This has been so far, the biggest complaint. Outdated job postings- It’s the second biggest drawback of online recruitment that job applicants detest. May applicants claim they have applied for what appeared to be a current job posting, only to find out weeks later that the position had been filled a month ago? How devastating this is for individuals who are hoping to land an interview with a prospective employer. Had the aspirant known the position was filled; he/she would have never applied for it. This is simply a
total waste of the applicant’s time. Website malfunctions—applicants often complain about company websites that breakdown when attempting to submit their documents. Other complains that some website layouts are so confusing and find it difficult to navigate around the site. Some get so frustrated that they give up trying to apply for work on that particular site. No response from the company— another complaint from the applicants is, they don’t get responses from some companies where they have submitted their resumes and contact information to company websites. Well of course there’s no way for the applicant to call the company because they have purposely omitted a contact number. Or else “no phone calls please”. Nowadays, companies discourage applicants from calling the company to inquire about a job posting. Its strictly web based process. Applicants just want to know whether they are selected or not so that they can apply elsewhere. Inability for job applicants to apply online creates inefficient, manual, paper-driven applicant processing. (B) Analyzing Relationship between Organizational Age and Attrition Rate on the basis of ATS based Recruitment Graph-1:Organizational Age and Attrition Rate Source: Authors’ research The organizational lifecycle also has a determining effect over attrition or the length of Employee Life Cycle (ELC). The new organization with a young set of employees has more attrition than old generation organization. In the above graph we can clearly see that as the organizational age is increasing, the attrition is falling and gradually after the maturity of the organization, again the attrition rises gradually. Initially when the organization is completely new the ELC is short as the joiner basically belongs to the young and fresh group who may or may not be reliable in the organization. As the organization is growing older, it has enough of chances of growth for the employees by offering them good salary as per their desire, easy going policies, less of control etc. In order to create its brand name and hence organizational control becomes tighter which leads the employees to attrite. Graph-2: Organizational Age and Attrition Rate-ELC Source: Authors’ research Tech tough (P) Ltd, is not an exceptional one and it too falls within the curve. Since the organization is an up-coming one, as per the curve its attrition rate is more. According to our observation, the attrition rate of Tech tough (P) Ltd falls between the range AB. Attrition rate is high because the company is a start up, there are no clearly defined job roles and they do not offer attractive salary packages.

V. RECOMMENDATIONS:

1. During the selection process not only the experienced candidates but also fresh candidates should be selected so as to avail the innovation and enthusiasm of new candidate.

2. As it is a start-up and attrition rate is high, selection of candidate should be done carefully and systematically.

3. Company requires systematic planning because candidates are selected first and then job post is created. Moreover at times candidates are selected and called for work but they do not have sufficient work to allocate them.

4. The job description should mention the other scope of work that might come up in future. Right person should be employed for the right job because Job Misfit is one of the reasons for attrition.

VI. CONCLUSION

To sum up and conclude, Applicant Tracking System helps the HR department to meet the challenge of current time. Many companies have seen a need to transform the way Human Resource operations are performed in order to keep up with new technology and increasing number of employees. The human intelligence is closely related with the human experience and decision making skills which is strongly backed by information’s. Now a day’s in every field of human working right information is considered as the most important resource of good decision making. This is very much applicable in today’s recruitment function where volumes of applications containing huge information are becoming increasingly difficult to manage and maintain. Applicant Tracking System made things much easier and simpler. It’s a systematic way of employee record keeping and extracting data about them. The human element of organization is the most crucial asset of an organization. Taking a closer perspective- it is the very quality of this asset that sets an organization apart from the others, the very element that brings the organization’s vision into fruition. Thus, one can grasp the strategic implication that the manpower of an organization has in shaping the fortunes of an organization. This is where the complementary roles of Recruitment and Selection come in. The role of these aspects in the contemporary organization is a subject on which the experts have pondered, deliberated and studied, considering the vital role that they obviously play. The research examines the various processes and nuances one of the most critical activities of an organization i.e. recruitment. The end result of the recruitment process is essentially a pool of applicants. Next to recruitment, the logical step in the HR process is the selection of qualifies and competent people. As such, this process concentrates on differentiating between applicants in order to identify and hire those individuals whose abilities are consistent with the organizations requirements ultimately fulfilling the goal of the organization. Implication for future research This study was an exploratory research providing a platform for future work in this area. A detailed study can be carried out with the participation of HR department heads, senior HR executives, HR executives, IT executives and vendors. Organization size and its investment decisions is another research area that has to be studied in the Indian context. Applicant Tracking System user population is small in India due to its cost. Especially small organizations could not use integrated Employee Tracking System with ERP within an affordable cost. A future researcher can find a solution for small and medium scale organizations Applicant Tracking System requirements. Solutions can be in the form of outsourcing or in the form of cloud computing which is a new concept to Indian industries. Though organizational planning consists of marketing, financial, production planning, this study was based on the HR planning aspect. A future researcher can find the contribution of Applicant Tracking System to cooperate planning in order to gain a broader understanding. This research was mainly based on recruiting subsystem. Future research may be based on other subsystems as well. How well Applicant Tracking System reengineers the organization, what sort of data security Applicant Tracking System users can expect and what is the contribution of eHRM to HR planning would be interesting areas for another study. A future researcher can enhance an existing Applicant Tracking System models enriching their intelligence.
VII. REFERENCES


