A Review on Role of Technology Software in HR-Recruiting and Selection Process

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Abstract - *In this century especially after 2000, Growth of technology and increase of less skilled labor and rate of unemployment push organizations to change their HR managerial techniques and use effective and efficiently technologies in Organizations. Overall using technologies have made works so easy, accurate and fast which helped organizations to perform better, allocate resources and increase productions. In this review paper, we tried to elaborate effect of using technologies on HR functions; special focus is on Recruitment and selection process. As the internet using facility is available to all people- employees get swamped with qualified and better candidates Recruitment as main function in HR activities needs to get more benefits from technology mainly internet and new software's, which can be enough useful in all stages of recruitment process. In second part, we will have a brief focus on which HR technologies being used in HR functions and what are HR manager's goals for using these technologies. This paper would also provide some explains on difference between traditional and technology _ based recruitment methods which is crucial nowadays. Understanding of importance of efficiently using of these technologies and how e_HR helps HR managers in today's competitive market is also another objective of this paper. Applying HR software's helps to reduce HR related functional costs, especially when we use technology software's for recruiting process. It may help to manage your organization and employees time. Using technology software may cause the best practice and guarantee the whole process of HR functions. Using ATS could lead to manage the whole process of recruiting including travel expenses, background check and all related activities.ATS helps organization to increase the quality of firing, best and qualified candidates would easily recognize and hire. Recruiting process has many paper works and it cost too much, so by using technology software we can reduce the cost factor. Using ATS helps to facilitate better HR planning by providing information regarding employees. Organization.*

Key Words: Technology Software, E-HR, Human Resource, Recruiting and Selection.

1. INTRODUCTION

Organizations needs to develop and be sustain only and only by innovation and positives transformations to compete in digital era. Transformation to technology has impact on all business practices including marketing, HR, finance and operations. Recently companies are more interested in using technology software's in HR practices especially in recruitment and selection process. For example Amazon use artificial intelligence to give job candidates scores ranging from one to five stars_ much like shoppers rate products on Amazons (www.amazon.com). Or NIKE use IVR to hear applicants and have online interviews. Organizations use variety of software's and technologies for screening and selection such as Telephones, IVR, computers adaptive testing's (frost 1997). In this paper one of our important objective is to provide a descriptive understandings of technologies which use for recruiting and selections, elaborates its importance and finally come with a conclusion of Does these techs are really essential for HR departments or NOT! According to(Dereks . chapman and jane Webster) they had a research in North America, and wanted to examine the extent of technology uses across the different stages of recruiting and selection process including advertising position, receiving application, initial screening and final selections, so to determine what technologies used. Another goal was why HR managers were adapting these technologies? Although at the end they came to understand that there are some factors for answering above questions. The very first factor is Cost saving _ as per innovex reports, they reduced by half the screening and selecting costs by using IVR (thornburg1998). In (1993 Cumming) said that the cost per person for face to face interviewing in universities is around 1700$ it includes transport, meals and hotels . But an interview by video conference is around 50$_150$ only. Second factor is increased globalization of economy and labor market. Competitive markets shortages of highly skilled employees has created strong demand for international recruiting which is possible by E_ recruiting (

Laabs 1998). Third factor is Reduction of adverse impact for protected groups and finally fourth factor is Improve the efficiency of hiring system, by automating process such as Resume screening, they noticed that one of the important points for increasing efficiency is shorten hiring cycle. Thereby for changing organizations to a better and responsive which would be able to compete with others it must has effective and efficient and short recruiting cycle. According to (Arvey, Gorder and Mussio 1975) delaying in hiring process would results in early withdrawing from selection process. Using internet has already become an important major for recruiting in all countries. According to (WiM0003) and reported by (Christian Bizer) in their paper_ over 53% of filled positions in Germany are results of online jobs posting despite of these achievement and as per flowed info in labor market a large number of job portals have sprung up, the point is high cost of online publishing job positions which causes employers publish less job portals and it prevents the offers for highly qualified candidates. The main reason behind automation of recruitment process specially preselecting stage is to reduce unnecessary costs. Many years back companies were positing their vacancies through Newspapers, TV and radios or intra organizational recruitment which caused missing work opportunities by qualified applicants _ because they couldn't receive job or vacancies news (jeffay & Bahamnon 1997). Later on companies had to fill vacancies with available applicants by not considering their work experience, skills and even if they are disqualified. There were only enough lucky if they receive vacancies news or live nearby. With developing and progress of technologies especially involving telecommunication and internet, now organizations placed in an excellent and better position of hiring qualified candidates with more accuracy and less time and cost. As recruitment is an extremely important process, so each and every steps needs to be done carefully and specially selecting recruitment tools is extremely important. So as we all know recruitment has different functions to be done so here we are trying to explain every stage briefly. In first stage_ identification of candidates, for out sourcing the best option is using internet .companies use different tools and soft ware's for publishing vacancies, analyzing applicants resumes. For example (Use of VOIP online calls). After outsourcing, interviewing is the next stage_ for interviewing we have many tools. Here we can bring example of (telephone interview, online aptitude tests). The next stage can be keeping profile of employees- in this stage we have database management, and last stage is background checkups which needs to be done and it include verifying candidates education , license, criminal records and previous employments (singh, finni 2003). According to (Dinesen, Noe and wang 2004) recruitment and selection process has different aspects and it would be impossible without applying technologies. That's why it says in today's business environment, HR counts as multi-functional and highly specialized so needs more focus on different objectives, this put more pressure on HRM and Does expect to be involved in different strategy making process and value addition in organizations.

1.1 Scope of paper

The human resource is a process in which the organization get their proper goals by selecting the best and talented human power to achieve the goals of the organization in this case we can say that the HR is the only way to follow these steps, in this paper I reviewed the analyses effects between software technology and selection process in the recruiting process.

2. LITERATURE REVIEW

Organizations needs to develop and be sustain only and only by innovation and positives transformations to compete in digital era. Transformation to technology has impact on all business practices including marketing, HR, finance and operations. Recently companies are more interested in using technology software's in HR practices especially in recruitment and selection process. For example Amazon use artificial intelligence to give job candidates scores ranging from one to five stars_ much like shoppers rate products on Amazons(www.amazon.com). Using IT in screening and selection process reduce adverse impacts of potential groups like sex, race, weight, age etc by documentation of biases (Galleys- callen & palmar 2006). To elaborate, information technologies helps to have records of your employees demographic characteristics which helps managers to take decisions accordingly. For better understanding of tech software's impact on recruitment and selection process, Rioux and Paul (1999) differs this process in two methods. First one is traditional methods and second is modern methods. In traditional methods recruitment process was getting done by employee referral, consultancy and advertisements but in today's modern method organizations use tech for better and accurate recruiting by using online recruitment and web-based recruitments. Using electronic HR helps to attract more potential candidates and provide them a clear view regarding the process. As E-Hr defines using internet to attract employees on an organization (Parry, 2006). Not

only advertisements and publication of the vacancies, technology software's can be used in any stage of the process to make tasks easy and accurate by considering time factor. From short listing the candidates to arranging interviews and all activities related to the processes can be done by using advanced techs. ATS shortlists the candidates, arrange for interviews and any other activities related to recruitment and selection process (Sharma - 2012). In past decades organizations were facing difficulties during implementing of their HR functions, storing data, analysis of performance and making decisions accordingly was a challenge. In recent decades HRIS as an integrated system provided more support for data entry and decision making regarding payrolls systems (Hendrickson- 2003). Electronic handling of recruitment needs and issues became an important matter in today's HRM, every organization may face problems regarding their HR functions which must be solved by the time, ATS software enables the electronic solving of recruitment needs effectively and efficiently (Sharma 2012).cost reduction and providing up to date services helps organizations for better competitiveness. Competitiveness leads to success and increase productivity (Ball 2001). In recruitment process the more important point is inclining toward the adoption of modern systems, small and medium enterprises are less inclined toward adopting to modern hiring systems which cause luck of access the job opportunities by candidates across the boards(Kishore 2012). In the past most of the HR functions were performing traditionally by using basic tools which was available, fortunately today, the current generation of HR developed and improved systematically which cause the automatic performance of routine administrative tasks (Barron –et. Al 2004). Internet based recruitments are more like virtual process and functioning's such as online apply, cv searching's and even online psychological test and many more which accelerates and fasten the overall process and also provides more chance for larger group of job seekers.(Hendrickson- 2003, Gardner- 2003).

3. Impact of technology on recruitment and selection process

Obviously digital transformation had its extreme impact on recruitment and selection process, in last few years we can see an increase in usage of digital software in organizations no matter small, mid or large firms in any managerial levels as at 2008. According to (Australian Burean statistic) over 80% of business firms directly take benefits of digital transformation by 2010. By 2001 in Australia 99% of large companies with more than 100 staff had access to the internet. Recruit employees using websites has become a common practice- survey on 2000 indicated that 75% of Australian firms conduct online recruitment. The term E- centric recruiting means the use of websites for encouraging applicants, posting vacancies and many more functional practices. Job board as an alternative of e-centric recruiting, it's more like a third party which hosts the recruiting activities of the firm. In job board organizations can announce their vacancies, advertise, provide information related job opportunities and candidate can submit their resumes there so organizations could receive applicants resume. Here are some examples of job boards in Afghanistan which is really effective and made easy the applying process for job seekers (ACBAR, AFGHAN JOBS). The cost for posting a job in a website is much more than posting or announcing by job boards, as per researches a job costs around 100$ - 200$ per posts on websites where its only 400$ -500$ for each ten posts. Other advantages of using job boards are:

- Job boards can provide more information's related to jobs for more range of people
- The cost factor is more less than traditional methods of HRM
- Using electronic HR can accelerate the recruitment cycle

1.3 Benefits of HR software's

Using HR software it depends on which type of software organizations select, it's very important for employees time management which will be saved by using software's and organizations should manage employees time toward more productive tasks. The very second benefits can be correction of errors, most of the time making error is a big trouble for managers. It can be done by employees **or** even by low or mid-level managers that can cause big lost in long time for organizations. Using software not only decrease errors but also helps in increasing accuracy, accuracy cause improvement in organizations with the introduction of electronic records. Additionally, using software may help organizations in reduction of cost too.

Beyond all these, organizations may get benefits or choosing specific software, specially implementing HRIS or learning management system which helps in better employee development, succession planning or online trainings. We can conclude as followings:

- Time and cost savings
- Better managerial and functional task with more accuracy
- Payroll management
- Self service benefits

- Improvement of recruitment process

2.3. Features of software

1. **Core HR**
   - Employment information
   - Salary information
   - Job status
2. **ATTENDANCE**
   - Scheduling of working time
   - Time management
   - Leaves management
3. **Compensation management**
   - Wages tracking
   - Benefits tracking
   - Account check
   - Tax management

4. **Self service**
   - Personal information
   - Requests access
   - Reviewing
   - Retirement plan
   - Trainings
5. **Candidate tracking**
   - Job requisition
   - Vacancy posting
   - Job board
   - Application information
   - Recruiting management
6. **Learning management**
7. **Certification management**
8. **Computerized trainings**

In today's business environment, companies uses different type of HR software to assist with managing staff which is really helps, simplifies the human resource management and finally by selecting an update software- organization would be able to increase productivity and manage their talents.

As per theories we can define HR software's as any software which helps to manage employee's information and any HR related tasks. This helps for better people managing, fastening and automation of tasks. Generally we have 2 types of HR software's:

3.3. On-premises HR software

Software which gets installed in personal devices, computers linked with small network inside organization.

We can only use this software when we are setting just on table of same computer which has installed.

It's important benefits are being really secure and with less cost.

4.3. Cloud- based software

In most of today's organizations cloud based software has more usage. It requires internet and login details, its better choice for flexibility and mobility in organization.

5.3. Most used and high ranked Technology software's

JOB DIVA: it's an important and useful software which for midsized organization. It provides end to end hiring and helps the recruiters by directly selecting idol candidates by scanning their resume. This software might work a little slow but most the users are all satisfied.

JAZZ HR: operates the way by helping recruiters to give tasks to HR group members. Follow all applicants' activities. It also provide better access to write mail messages for organization, provide access for creating templates and in last survey, it scored 8,3 out of 10 as per Trust Radius.

GREEN HOUSE: this software enables organization to connect with social networking sites like, Gmail- LinkedIn. To announce vacancies, provide online A/B tests for different job posts.

ORACLE CAPITAL MANAGEMENT: oracle as a complete package for HR professionals helps to check an provide close view on HR lifecycle. It starts from very first stage of recruiting till retirement of an employee. This software is the best option for large organizations where they can arrange a complete system of tracking.

- **SMART RECRUITER**
- **LINKEDIN**
- **JOB VITE**
- **PEOPLE FLUENT**
- **ICIMs**

6.3. Future path

Using technology have its impact on human resource management for long time, especially small firms will be able to find more computing capacity and it will help them to develop and increase the productivity. Mid-sized organizations will have same computing facilities and capabilities which is currently only limited to large organizations. The most expected changes in HRIS development could be upgradation of the software by vendors which is today it only develop in house or purchase functionally from vendors. As per model

mentioned by (R.hendrickson in 2003) ASPs would create chances for organizations to be able to functionality at competitive price. Now all vendors not only they creates the application they also host the software on the vendors won computer platforms. Effect of portal technology on HRIS considers very important in today's business. Tech portals help organizations to customize the end users junctions over many units in organization. The idea is to control access through a webpage and allow individuals to deliver on their desktops. According to (Walker 2001) this idea would provide the opportunity to individuals to create their own portal as per their responsibilities.

Knowledge management- it means having records of all information regarding groups and individual in a system. A record system of all information which gain from groups and individuals which will be available for organizations management and even for staff. This management includes creation of procedures for sharing information, communication network to enhance transfer of knowledge within and between organizations.

HR as communication link – traditionally HR was functioning only to get works done by employees and only think on gaining benefits for organization. Today applying technology changed HR management methods. Organizations needs to hear their employees and the best way are using tech software's as link. Now employees can drop mails directly to their seniors and even chat using some chat box.

Self-service HR - the term means when employees find the opportunity to manage their own activities related to HR by using any technology to enhance skill. The tem came in action when some technology software's innovated in organizations for example: employees can plan their retirement by using tech or monitor their own activities and even they can work on development function by using computerized trainings.

4. Findings and discussions

- Applying HR software's helps to reduce HR related functional costs, especially when we use technology software's for recruiting process.
- It may help to manage your organization and employees time.
- Using technology software may cause the best practice and guarantee the whole process of HR functions.
- Using ATS could lead to manage the whole process of recruiting including travel expenses, background check and all related activities.

- ATS helps organization to increase the quality of firing, best and qualified candidates would easily recognize and hire.
- Recruiting process has many paper works and it cost too much, so by using technology software we can reduce the cost factor.
- Using ATS helps to facilitate better HR planning by providing information regarding employees.
- Organizations can promote their grand by posting jobs and vacancies.
- As the internet using facility is available to all people- employees get swamped with qualified and better candidates.
- Companies face problem while hiring international employees or even local one- most of the time candidates meet all requirement on paper which is not same as their own characteristics. It must be decided only when recruiters meet him/her face to face so using online recruiting or any other software which provides face to face interaction would help.
- Considering current situation of organizations with respect of using internet and technology. In daily activities especially in HR process push them to select mixed methods of traditional and modern HR.
- As per reports – organizations are more kindly projecting the image of being so dynamic culture and improve oriented, they use HR technology.

As per reports published in 2003 by Derek S.chapman and Jane Webster , organization which were more like to adopt HR technology to decrease costs, better time management, reduction of errors, increasing of efficiency and standardized their HR functions specially recruiting and selection process and as result they got a moderate result with HR technology software based solutions. The common recommended issues were cost maintenance, security and reliable vendors.

5. Conclusion

To conclude, technology software's provide better options for managing HR related activities. Organizations needs to transfer from traditionally managing HR to digital HR, using technology helps managers to recruit qualified and best candidates in an easy way in order to increase organizations productivity and standardize HR related functions. Software which we mentioned above are all strongly supported by information and data. Using ATS is a better option in today's business operations. Large

number of applicants needs to be more accurate and manage your time which is really easy to keep recording of all and extract data on them by using ATS.

By considering the fact that HR is an important asset of organization, it must be managed and used the way it brings more profits and employee satisfaction too. In addition we extremely believe technology helps managers make easy tasks of HR and provide them opportunity to use their HR asset in some better direction. Off course applying HR technology in organizations especially in recruiting and selection process ends with moderate results.

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