Research Article

Does E-recruitment Matter for Service Sector? An Empirical Study of Hyderabad, Pakistan

Ikramuddin Junejo[1,*], Arslan Khawaja[1] and Kanwal Gul[2]

[1]SZABIST, Hyderabad Campus Sindh, Pakistan

ikramuddin8022@yahoo.com; arslan.khuwaja@gmail.com

[2]Institute of Business Management, Karachi Sindh, Pakistan

kanwal.gul1388@gmail.com

*Correspondence: ikramuddin8022@yahoo.com

Abstract: Recruitment is an essential tool to hire candidates. Over the years, the mediums for recruitment have been drastically changed. It principally started with the word of mouth and now is just a click away due to internet and technological advancements. With an increase in use of online platforms, electronic recruitment helps to attract and hire the best candidates to obtain people-based competitive advantage. This study has adopted a quantitative research approach to identify influence of attractiveness, job fit, time, and cost in E-recruitment. Primary data has been collected through questionnaire from a sample of 200 employees of a service sector businesses of Hyderabad Sindh, Pakistan. The findings reveal that large and desirable pool of candidates as well as placing the right candidates to right job has a direct relationship with electronic recruitment. The time and cost of recruitment has inverse relationship with the e-recruitment performed as perceived by employees in the selected service sector organizations of Hyderabad. Based on the findings, the study implies policy makers to apply newly developed concept of e-recruitment for future hiring.

Keywords: *E-recruitment*; *Job fit*; *Time*; *Cost*; *Service sector*

1. Introduction

Recruitment is a roller coaster, becoming more thrilling with advancement in technology and innovations. It started with the word of mouth and now is just a click far away. Recruitment involves practice and activities by companies with the main purpose of identifying and attracting the prospective potential employees. It is a crucial segment of human resource management as it delivers the critical function of drawing human assets in an organization (Baber, 1998). Recruitment is an essential tool to hire candidates in organizations. The mediums for recruitment have been drastically changed over the past years. During industrial revolution, a simple sign on factory front was prime recruitment media. Newspapers ruled as a recruitment source from 1950's – 1980's by sourcing

candidates over newspaper advertisements. In 1980's the recruitment consultants used telephone, local as well as national newspapers and specialist job seekers to hire candidates. In 1990's the World Wide Web was introduced. It revolutionized the recruitment methods, sources, and tools. Technology affected the entire recruitment process and recruitment market modifying traditional recruitment to Electronic recruitment or E-recruitment. Organizations changed their recruiting medium from publishing job requirement in newspapers or magazines to posting job descriptions and vacancies online. Since then online recruitment has grown rapidly and is used widely by recruiters and job aspirants throughout the world (Cobra and Brown, 2006). According to Kaur (2015), following are the commonly used e-recruiting methods by organizations to acquire talent:

- Job Boards: A medium where employers post jobs and find prospective employees. The aspirants are notified about vacancy.

- Employer Website: The official website of the organization or employer-owned website.

- Professional Website: The websites specific for profession, talent, trait or skill.

The influence of the internet has impacted the service sector organizations working in Hyderabad, Sindh. Many organizations have their own established human resource departments. With an increase in the use of online platforms, they are using e-recruitment to attract and hire the best candidates to obtain people-based competitive advantage over the competitors. Many employers are not only limited to attracting the best candidates from Hyderabad but also from all over Sindh. The same case is for job seekers. Therefore, organizations in Hyderabad are using internet for recruiting people to win the race of acquiring best talent. As e-recruitment is considered as a recruiting tool for service companies in Hyderabad, Sindh, it is fundamental to explore the factors influencing it. This research is based on the perception of employees in identifying and understanding the impact of factors that affect electronic recruitment in the organizations of Hyderabad, Sindh.

2. Literature Review and Hypothesis Development

2.1. E-recruitment Employee Perspective

The job search intention and to attract the applications is the first stage of the recruitment process. While in this stage individual perception matter a lot for the organization's success rate for effective recruitment (Smith *et al.*, 2001). Job intention can be defined as a candidate intends to pursue a job, in this behavior various factors are covered such as applying for the vacant job, availability in interview and wish to be a part of this whole process (Ahmed, Isa, Majid, Zin & Amin, 2017; Chapman *et al.*, 2005). It is very important to know for the effective recruitment the intention or perception of applicant and firm would have to design their HR strategies with candidates' point of view for the win-win situation.

2.2. E-recruitment Candidate Perspective

Nowadays, it has been noticed the growth of new technology and this growth can be understanding for many things likewise online banking, online shopping, and no doubt online job searching. This behavior is adopted by the individual for two key reasons such as cost-effective and save time. There are certain negative impacts of e-recruitment on minority groups (Sylva and Mol, 2009), with estimate in many papers it has been discussed that less than 5 percentages the e-recruitment to be taken in account of candidate-oriented (Anderson et al., 2004). This the key

challenge for the applicants' perception two words this emerging e-recruitment matter a lot. There are certain factors in regard to applicants' perception are derived from literature review such as user friendless, fairness perception, information provision and perceived efficiency (Cober *et al.*, 2003).

2.3. Process of E-recruitment

1. Company's website: The firms can use their website for the posting of vacant positions in an organization and the future employee can follow this provided link in order apply these vacant positions. The HR department is key responsible for managing this activity through company's website, this act will attract potential candidates for future hiring.
2. Job portals by commercial companies: Many companies use commercial job portal for the vacant position into organizations such as naukri.com and jobee.com.pk so on for the posting of vacant position and finding the talented and organizational fit candidates.

2.4. Motivation of the Study

The e-recruitment has resolved the problems of the old method of recruitment and it is easy to find the right person for the right job. Most employers are not limited to their cities or countries for hiring the people according to their organizations' vision statement. The Hyderabad is growing city with very limited pool of right candidates available for the employer to fill vacant positions into their respective organizations. This study will help firms which are operating in Hyderabad, Pakistan by using internet, they can advertise for their vacant position after understanding advantages or effectiveness of e-recruitment through this study.

2.5. Theoretical and Conceptual Framework

The resource-based view theory developed in the 1990s, this theory helps to develop all possible benefits can be driven from effective recruitment. According to Barney and Wright (1998), there are five key performance indicators are used in order to get completive advantage through resource-based view theory in context of recruitment. First, the recruitment activity should add value in terms of labor cost-effectiveness especially in perspective of hiring. Second, it is job recruitment to ensure to attract the right person for right job which is rarer into labor market. Third, the recruitment strategy should be unique which cannot inimitable by the competitors in specific industry. Fourth, the recruitment might be innovative to great extent or new way to recruit the needed employees for the organization. Lastly, which is also important that the recruitment must be aligned in terms of strategic fit with HR practices. Once, the firm is able to meet above five important outcomes from recruitment than it will have impact on firm's financial performance at bottom line.

2.6. Prominent Studies

Today, the employer is using social media websites for recruitment purpose but most of the time they are unable to get new information as through candidates' resume (Reiners & Alexander, 2013). The advantage to employer is that through social media the great pool of candidates can be obtained. The web process ensures the easy of research to demanded applicants via search process in shorter duration (Compton *et al.*, 2009 and Torrington *et al.*, 2004). The great portion of work has been shifted to applicants from employers because nowadays, the candidate has to ensure his or her availability on website and try to develop their information in provided platform in well manner. Cost also

reduced to great level due to these social websites (Jacobs, 2009). The online recruitment has proved to save up to 30 percent faster in rate than the old job filling methods (Worforce, 2000), this is possible due to elimination of middlemen and shorter the hiring stages than previous or old once.

The most time the information provided on social media in misleading or incorrect that is provided by the jobseeker, this problem create a barrier for the job provider to select the right person for the right job (Brown & Vaughn, 2011). This is very serious issue which seems to be smaller, but it has huge consequences on the overall image of firm or company. The exchange of key incorrect information between both the recruiter and jobseekers will have negative impact on psychological contract between both parties (Roberts & Roach, 2009).

The applicant usually updates their personal information on social media websites that might leak personal information to the general public (Madejski *et al.*, 2011). Most of times, the candidates may be facing unusual comments on social media websites and this creates misunderstanding between both parties such as employer and potential employees. When applicants see the malpractices on these social media websites the potential jobseekers left these websites and personal information can be theft (Connerly *et al.*, 2001). The employer may reject the jobseeker based on provided information on these social media websites (Kluemper, 2012). These reasons can be which are practically observed such as inappropriate pictures, information related to drugs, poor communication skills and sharing confidential information related to past organization so on.

Mindia and Hoque (2018), conducted an empirical study on multinational companies of Bangladesh on finding the effects of e-recruitment and the Internet on the recruitment process. Primary and secondary sources of data were gathered for the study in form of questionnaires and interviews. The researched focused 120 respondents from 30 multinational companies with convenience sampling technique. The findings revealed e-recruitment can award strategic contributions to the organization if implemented by adequately trained recruiters for building effective online recruitment system. Investment made by organizations into job portal and on their website is long-run benefits can be driven and many companies are considered online recruitment as an effective method and rising trend in future too.

Nasreem (2016), researched technological advancement and improvement it has brought in recruitment in the employment sector. This research specifically explores the effect of E-recruitment in small and middle scaled IT-based ventures majorly located in Lahore. The researchers used descriptive analysis to support the study. Advantages and disadvantages are the attributes to measure the effectiveness of E-recruitment. The results show for small and medium IT enterprises, HR Managers in Lahore Pakistan focus more on online recruitment to earn a high return on investment in the long run.

Pessis and Frederick (2012), focused different ways of electronic recruiting and their impact on the Human Resource Department in comparison to traditional recruitment methods and tools. Secondary data was gathered from 529 businesses of Auckland Rosebank Business Precinct. A random stratified cluster sample was used for collecting the data. The research resulted that in job categories like cost-time efficiency and wider audience targeting, e-recruitment is effective, while in others like effective talent acquisition and quality applicants, electronic recruitment has the same impact as that of traditional recruitment. The online recruitment has many benefits but key it can attract a suitable candidate for job, and this will help firms for achieving their selective targets and goals in future. Holm (2010), analysed the undeniable effect E-recruitment has on the design and

structure of the recruitment process. This is a qualitative exploratory research conducted in Human resource departments of 3 large organizations of Denmark in 2008-10. Findings of the study revealed that e-recruitment not only saves time but also changes whole structure of recruitment process. Usefulness of e-recruitment depends on certain factors that include such as security, reliability, performance, and cost-effectiveness.

Ha (2003), the objective was to measure e-recruitment effects on the competency of human resource management. A qualitative approach was employed for conducting the research. The data was collected through structured questionnaire from HR managers, middle managers and functional managers of multinational companies in Vietnam. Studies summaries that the E-Recruitment reduces HRM stress by minimizing cost to recruit and save huge time, reduce HRM burden by actively recruiting staff and employees. In addition to e-recruitment, the companies were trying to avoid and demolish traditional recruitment techniques. Despite advantages, few negative impacts of e-recruitment cannot be neglected.

Malik (2008), focused on the problem of e-recruitment in number of applicants applied, the cost associated with e-recruitment, reduction in recruitment cycle, effectiveness in job provision, assistance in job provision and its effectiveness in human resource departments in the private industries in Pakistan.   The methodology used was interviews and questionnaire sent to the Human resource managers among prominent firms of Karachi, Lahore, Islamabad, Rawalpindi, Faisalabad, Peshawar and Quetta. The result show that E-recruitment higher is significantly determined by Effectiveness of HR Department, Finding better quality of applicants, Cost Effectiveness, Reduced Recruitment Cycle, Consistent Recruitment Process, and Potential Job Seekers Facilitation.

Holme (2009), talks about the appropriate definition of E-recruitment and its execution in the recruitment process. The main objective of this research is to understand whether E-recruitment is only limited to virtualizing the recruitment process or something greater than that. Data for this exploratory research is gathered from secondary as well as primary sources. The primary data was collected through questionnaires and interviewing high-level managerial staff of fourteen different types of multinational companies in Denmark (Khalid, Ahmed, Tundikbayeva & Ahmed, 2019). The research describes all the possible elements of E-recruitment and how it is influenced by organizational structure and outer circumstances (Umrani, Mahmood & Ahmed, 2016). Findings of the study indicated that e-recruitment is not just limited to recruitment process but also requires expansion of whole organizational structure. The tools and methods of online recruitment can only work properly if integrated with other departments of organization.

Parry (2008), explored the widespread use of online recruitment in organizations in the UK. However, it has not dominated the traditional recruitment. The aim was to find out extent of usage of online recruitment. The methodology used was qualitative and longitudinal large-scale survey of the activity of recruitment to interrogate its 'proposed success' in commercial and corporate websites. The respondents interviewed were 20 users of online recruitment website. The results showed a strong positive impact and adaptation of online recruitment by the practitioners in the UK. Mar (2007), analysed the source of E-recruitment that examines pre-hire criteria. A longitudinal approach was used to focus on pre-hire quality and quantity of applicants. A total five hundred and thirteen respondents participated in the research. The methods to assess source include secondary data, survey data, and interviews. Distributing questionnaires and surveys to real participants assessed applicants, whereas the organizational perspective was obtained by interviewing Human Resource

practitioners. The findings show quality of applicants chosen by E-recruitment process is equal to and less than other practices of recruitment.

Nike (2005), was getting around 800-900 resume' per month for average 120 openings at Europe, Middle East and Africa (EMEA) Headquarters (HQ) in Hilversum, the Netherlands. The task of handling applicants was challenging as the headquarter increased in size. This created further issues to track the progress of prospects rather than aimlessly circulating the resume' among different departments. The methodology used was to standardize the HR process, reduce the cost associated and improve the quality hired. An integrated e-recruiting mechanism 'Active Recruiter' was included in PeopleSoft software. These steps helped Nike reduce 54 percent of the total recruiting cost, decrease average time to fill vacancy up to 20 days and reducing the overall recruitment time.

3. Methodology

3.1. Population

The respondents of this research comprise 200 employees of service sector Hyderabad, Pakistan. The author of the study determined the sample size used in this thesis is calculated using the rule of thumb the formula proposed by (Roscoe, 1975) and is given as:

Sample size = Number of items in questioner * 10

$$= 12 * 10$$

$$= 120$$

In order to get better response and results optimal sample size determined is 120 but authors have distributed among 200 respondents in the service sector of Hyderabad, Pakistan. In this study, the participants were selected through convenience sampling technique which is a form of non-probability sampling technique. The data collection process continued for 1 month from 200 respondents. 250 copies were successfully completed, returned and utilized for analysis out of 250. The response rate was 80%. The various service sector such as Telecom, Banking, and Education industry has been considered for the respondent of this study.

3.2. Measurement

The questioner included structured close-ended questions and consists of two parts. In 1st part personal profile of respondent was needed to be filled while in the 2nd part both dependent and independent variables of was measured for testing the hypotheses. The questioner is developed and adopted from (Singh, 2016). In this study 5-Point, Likert scale is used for determining the respondent's response by using negative to positive approach that ranges from 1 (strongly disagree) to 5 (Strongly agree).

4. Result and Discussion

4.1. Descriptive Analysis

The total questioners filled in this research were 200 out of 250 distributed to service employee of Hyderabad. The 80% response rate includes both male and female employees in which 52% were males and 48% were females, education level were divided into three categories such as intermediate, Graduate and Post-graduate. The percentage of each level of education were Intermediate, 13.5%, and Post-graduate 26.5%. In terms of occupation level authors of this study taken into two categories Managers 9% and Lower employees 91%. Table 1 respondent profile as summarized.

Table 1. Respondent Profile

Construct	Category	Frequency	Percentage
Gender	Male	104	52%
	Female	96	48%
Education	Intermediate	27	13.5%
	Graduate	120	60%
	Post-graduate	53	26.5%
Occupation level	Managers	18	09%
	Lower Employees	182	91%

Source: Authors' Estimation

4.2. Reliability Analysis

You can see in above table 2 the Reliability Statistics, the value of Cronbach's Alpha is used for final decisions about the reliability of studied data. On that basis, we can level of reliability in terms of poor or good, in our case,Cronbach's Alpha value of E-recruitment 0.776, N=3, Attractiveness 0.647, N=3,Job fit 0.705, N=3, Cost 0.753, N=3 and Time 0.806, N=3. All the studied variables are found reliable and the conclusion for reliability can be drawn as data is reliable.

Table 2. Reliability analysis

Name of variable	Cronbach's Alpha	No of Items
E-recruitment	0.776	3
Attractiveness	0.757	3
Job fit	0.705	3
Cost	0.753	3
Time	0.806	3

Source: Authors' Estimation

4.3. Hypothesis Testing

A multiple regression analysis table 3 shows two important values, the value of beta and p-value. The value of beta usually determines the relationship between the dependent variable with independent variables whereas the p-value shows the level of significance. In this study all independent variables such as Attractiveness (β=0.230, $p<0.05$) and Job fit (β= 0.126, $p<0.05$) are found positive and significant impact on dependent variable e-recruitment. However, two other independent variables such as Cost (β=-0.359l, $p<0.05$) and Time (β=-0.106, $p<0.05$) are found negative and significant impact on dependent variables e-recruitment. The value of R2= 0.421, that indicates the total variation explained this study independent variables such as Attractiveness, Job fit, Cost and Time independent variable e-recruitment.

4.4. Discussion on Findings

4.4.1. Attractiveness

Based on these results, hypotheses discussed in section and reproduced here are accepted. That is:

H_{a1}: Attracting large and desirable pool of candidates has a significant effect on E-recruitment in the service sector of Hyderabad, Pakistan.

In this case, the null hypothesis is rejected, and its alternative hypothesis is accepted. This is because estimate of attractiveness is positive and significant. This implies that attractiveness of job has positive and significant effect on e-recruitment. Candidates' data can be obtained automatically that is stored in server of organization and this data may be utilized for other related vaccines within organization (Parry and Tyson, 2008). However, a large pool of candidates depends on image of firm in the mind of potential candidates (Dutta, 2014). Due to market saturation and hard competition for several reasons such as diversified skills and high turnover can be addressed to a great extent through this attractive variable of this study.

Table 3. Multiple Regression Analysis

Dependent variable	Independent variable	β-value	P-value
E-recruitment	Attractiveness	0.230	.000**
	Job fit	0.126	.000**
	Cost	-0.359	.001**
	Time	-0.106	.003**
R-Square	0.421		

Note: **significance level at 0.05

Source: Authors' Estimations

4.4.2. Job Fit

H_{a2}: Placing the right people to the right job has a significant effect on the E-recruitment service sector of Hyderabad, Pakistan.

As far as the second hypothesis is concerned, null is rejected and its alternative that e-recruitment places right people on the job is accepted. The basis of this conclusion is that the estimated slope parameter of job fit is positive and significant. This mean job fit does have a significant positive effect on e-recruitment, which enables us to reject that null that it is irrelevant determinants of e-recruitment. The findings of this study strongly suggest that the e-recruitment in most organizations for hiring the right person for the right job. With respect to traditional method of hiring the online method of recruitment develop appropriate strategy for successful implementation and use of it in effective manner.

4.4.3. Cost

H_{a3}: Cost has a significant negative effect on E-recruitment in the service sector of Hyderabad, Pakistan.

In the case of the third hypothesis, null is rejected, and its alternative is accepted. Regression results display that estimate of cost is negative and significant. This means recruiters reduce e-recruitment if it is expensive to them. Hence the null that cost does not affect e-recruitment is rejected and its alternative that cost has significant negative effect on e-recruitment is accepted. e-recruitment mostly filters unsuitable candidates at very early stage of hiring process to great level (Barber, 2006). This also be counted the success of online recruitment where cost of hiring is addressed to dramatic or high level (Parry and Tyson, 2008) and advertisement cost through various sources is also reduced such as newspaper so on. Findings of this study can be concluded as internet recruitment is much less costly with respect to the traditional way of hiring within firms.

4.4.4. Time

H_{a4}: Time has a significant negative effect on E-recruitment service sector of Hyderabad, Pakistan.

As far the fourth hypothesis is concerned, null is rejected, and an alternative is accepted. This is because; the estimate of time is negative and significant. It means recruiters use e-recruitment because it saves their time to hire suitable in vacant positions. Hence as time saved through e-recruitment increases, employers give it more preference for recruitment instead of traditional recruitments methods. The speed-up recruitment process due to internet can be ignored and at acceptable rate process of hiring potential candidates is accelerated to a good pace due to a large number of CVs through website portal and e-mails (Barber, 2006). Human resource department was burdened in past because lot of middlemen were involved from line manager to HR manager so on in the extensive screening process but due to online recruitment this burden is reduced and HR department can spend this saved time on other HR functions within company (Parry and Tyson, 2008).

5. Conclusion and Managerial Implications

5.1. Conclusion

In this study, we used primary data for finding out determinants of e-recruitment in fifteen selected service sector organizations located in Hyderabad. Reliability test results show that the collected data is relevant and can be used for evaluating the relationship of e-recruitment with attractiveness, job fit, cost and time. The estimated of all independent variables are significant at five percent significance level. Furthermore, the result shows that attractiveness and job fit affect e-recruitment positively. Cost and time, on the other hand, affect e-recruitment negatively in our study. Nowadays, the Human resources department serves as competitive advantages over to competitor into related industries. The internet through online hiring has been helping firms for filling vacant positions with job-fit candidates. This study concludes that online recruitment has added value to Human resources hiring function with many benefits to firms in long run context and traditional way of hiring is reduced in many firms. It became easier for findings, right person in short time with acceptable cost.

5.2. Managerial Implications

To replace some proportion of traditional recruitment, if not all, with the modern e-recruitment techniques. This will not only ensure attractiveness but mainly will save the cost of the organization. To fortify that the existing employee staff is qualified enough to make the best use of e-recruitment techniques. To rely more upon designing web portals to reduce the time required to delivery jobs vacancies conventionally. People looking for a job can easily access web portals. Everyone should be assigned a specific user ID and profile that contains his entire data; from his credentials to the work experience. Every time when there's a vacancy, individuals who fulfil the job requirements will be notified automatically this could reduce time of e-recruitment. To partner or associate with online job searching platforms like Rozee.pk and others. This will help the organizations advertise as many job vacancies as they want on a platform that is accessed by millions of users daily, which would save cost of posting jobs traditionally and will reduce time to process e-recruitment strategy. To continue evaluating the existing e-recruitment system and the employees hired through it to identify the

possible loopholes as early as possible. Making the necessary improvement in the e-recruitment system should then rectify those loopholes.

5.3. Limitations and Directions of Future Research

This research is limited to only the service sector due to time, cost and other constraints. The second limitation is that the research is limited to Hyderabad city only because of financial restrictions. The third limitation is that the sample size taken is only 200 due to time restraint and it was also hard to reach more than 200 employees within this small city. Moreover, this research is restricted to only employees' perception working in service sector of Hyderabad because of very little development of human resource management departments in Hyderabad it was hard to reach HR officials in Hyderabad. Based on these limitations, it is recommended that future researchers can extend this research by overcoming its weaknesses.

References

Anderson, N., *et al.* (2004). Future perspectives on employee selection: Key directions for future research and practice. *Applied Psychology: An International Review*, *53*(4), 487–501.

Ahmed, U., Isa, N. M., Majid, A. H. A., Zin, M. L. M., & Amin, B. M. (2017). Towards understanding work engagement: can HR really buffer HR? Test of a moderated model. *International Journal of Economic Research*, *14*(20), 1-18.

Barney, J., & Wright, P.,M. (1998). On Becoming a Strategic Partner: The Role of Human Resources in Gaining Competitive Advantage. *Human Resource Management, 37*(1),31-46.

Brown, V. R., & Vaughn, E. D. (2011). The writing on the (Facebook) wall: The use of social networking sites in hiring decisions. *Journal of Business and Psychology*, *26*(2), 219-225.

Barber, L. (2006). E-Recruitment Developments.*Institute of Employment Studies Research Networks. Brighton*, UK.

Compton, R., *et al.* (2009). Effective Recruitment and Selection Practices. *Journal of Business & Management*, 15-23.

Dhamija, A., & Pavitra, B. (2012). E-recruitment: A Roadmap Towards E-Human Resource Management. *Researchers World, 3*(3), 01-05.

Cober, R.T., *et al.* (2003). Organizational Web Sites: Web Site Content and Style as Determinants of Organizational Attraction. *International Journal of Selection and Assessment*, 11(2/3), 158–169.

Dutta, D. (2014). Tweet Your Tune - Social Media, the New Pied Piper in Talent Acquisition. Vikalpa. *The Journal for Decision Makers*, *39*(3),93-104.

Holms, A., B. (2010). E-Recruitment: Towards A Ubiquitous Recruitment Process and Candidate Relationship Management an Examination of E-HRMas A Means to Increase the Value of the HR Function. *German Journal of Research in Human Resource Management*, 26(3), 242-260.

Holm, A. B. (2009, May). Virtual HRM: A case of e-recruitment. In *11th International Conference on Enterprise Information Systems* (pp. 49-68). INSTICC Press.

Islam, M., M. (2016). Analysis of E-recruitment Trend and Effectiveness. *Business Management*, Vol. 30, 01-02.

Jacobs, D. (2009). Surviving the Social Explosion. *Landscape Management*, 10-13.

Kaur, P. (2015). E-Recruitment: A conceptual study. *International Journal of Applied Research*, *1*(8),78-82.

Khalid, N., Ahmed, U., Tundikbayeva, B., & Ahmed, M. (2019). Entrepreneurship and organizational performance: Empirical insight into the role of entrepreneurial training, culture and government funding across higher education institutions in Pakistan. *Management Science Letters*, *9*(5), 755-770.

Kluemper, D. H., *et al.* (2012). Social Networking Websites, Personality Ratings, And The Organizational Context: More Than Meets the Eye. *Journal of Applied Social Psychology*, 1143-1172.

Ma, L., & Ye, M. (2013). The Role of Electronic Human Resource Management in Contemporary Human Resource Management. *Open Journal of Social Sciences*, *1* (2), 71-78.

Melcrum, P. (2005). Nike's Successful E-recruitment. *Strategic HR Review*, 03-04.

Mar, E., A. (2007). E-recruitment: The Effectiveness of Internet as E-recruitment Source. *International Journal of Human Resource Studies, 8* (1), 24-67.

Mindia, P. M., & Hoque, M., D.(2018). Effects of E-recruitment and Internet on Recruitment Process: An Empirical Study on multinational companies of Bangladesh. *International Journal of Scientific Research and Management (IJSRM),* 6(1), 01-06.

Madejski, M., *et al.* (2011). The Failure of Online Social Network Privacy Setting. *Department of Computer Science, Columbia University.*

Nasreem, S., *et al*. (2016). Effectiveness of E-Recruitment in Small and MediumEnterprisesofIt Industryof Lahore (Pakistan). *Pakistan Economic and Social Review*, 54 (1), 143-164.

Pessis, A. J., & Frederick, H. (2012). Effectiveness of e-recruiting: empirical evidence from the Rosebankbusiness cluster in Auckland, New Zealand. *Science Journal of Business Management*, *12*(1), 12 (1), 01-21.

Parry, E., & Tyson, S. (2008). An Analysis of the Use of Successof Online Recruitment Methods in The UK.*Human Resource Management Journal*,*18*(3),257-274.

Shaukat, M. M., & Assad, M., U. (2007). Impact of E-Recruitment on Effectiveness of HR Department in the Private Sector of Pakistan. *International Journal of Human Resource Studies*, *8*(2),80-94.

Singh, R. (2016). Impact of E-recruitment on Human Resource Supply Chain Management: An Empirical Investigation of Service Industry in Indian Context. *Researchers World 4*(2), 56-91.

Sylva, H., & Mol, S., T. (2009). E-Recruitment: A study into applicant perceptions of an online application system. *International Journal of Selection and Assessment*, *17*(3), 311–323.

Torrington, D., Laura. H., & Taylor, S. (2005). *Human Resource Management* (5th ed., pp. 150-180). Harlow: Pearson Education.

Umrani, W. A., Mahmood, R., & Ahmed, U. (2016). Unveiling the direct effect of corporate entrepreneurship's dimensions on the business performance: a case of big five banks in Pakistan. *Studies in Business and Economics*, *11*(1), 181-195.