

Innovative Way of Using Social Media Networks for E-Recruitment and Selection

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ABSTRACT: Changing global environment needs to adopt changes in technology to open up new prospects. Innovation is needed in HR practices of the companies. Companies need to implement changes to work effectively in order to increase profit. In order to achieve success, a big transformation is happening from traditional recruitment and selection method to E- recruitment and selection method. This transformation is happened to acquire highly skilled employees at low cost. And thus saves time too. Social Media are big boon for the companies which have adopted innovative blooming internet based recruiting techniques. The study finds the innovative way of utilizing Social Media Network as recruitment sources on E-Selection. Qualities of Information, Popularity among Applicants, Ease of Navigation, Security or Privacy of Information, Quality of Application, Time Saving were the items formulated to propose relationship between dependent and independent variables. Social media network is the dependent variable and satisfaction through e-selection is the independent variable. When social sites are considered, some professional networks such as LinkedIn served good for most of the Job seekers to search jobs. 72.8 % use Linked In as professional social communication network. The effectiveness of social media network on satisfaction through e-selection is found using regression model. The model is said to be fit for 61 %. It is concluded that social media network influence E-Recruitment and Selection.

Keywords: Social Media Networks, Technology, Fortune 500 companies, E-Recruitment, E-Selection, HR Recruiters, Recruits.

1. INTRODUCTION

Changing global environment needs to adopt changes in technology to open up new prospects. Companies need to implement changes to work effectively in order to increase profit. In order to achieve success, a big transformation is happening from traditional recruitment and selection method to E- recruitment and selection method. This transformation is happened to acquire highly skilled employees at low cost. And thus saves time too. Social Media are big boon for the companies which have adopted blooming internet based recruiting techniques. (Ramkumar, A. & Rajini.G 2018 a; Ramkumar, A. & Rajini.G 2018 b; Ramkumar, A. & Rajini.G 2018 c; Ramkumar, A. & Rajini.G 2018 d). The fact that Social Networking Sites entered the business landscape, and in particular the recruitment landscape leads to a demand for knowledge about recruitment trends regarding Social Networking Sites. With this study the phenomena of Social Networking Sites in recruitment was explored (Fawzieh Mohammed Masa'd, 2015). (Ramkumar, A., & Rajini, G. 2019 a; Ramkumar, A., & Rajini, G. 2019 b; Rao, C., Nageswara, B., & Neeraja, B. 2018; Compton et al. (2009) say that many companies are effectively using Social Media Networking sites for recruitment purposes and it brings advantage for the firms in the competitive edge. Abel, S. (2011) Provides the relevance of application among all other social networking sites.

2. OBJECTIVES OF THE STUDY

Research is needed since; there is minimal exploration on the effectiveness of E-Recruitment and Satisfaction through E-Selection from the analysis of extensive review of literatures. Only dearth of studies is found in this aspect. Study is needed to overcome the limitations faced by both job seeker and job provider who involved in online process for recruitment and selection.

- To Study the innovative way of utilizing Social Media Network as recruitment sources on E-Selection
- To develop and test the models based on effectiveness of E-Selection based on Recruits' perspective.

3. REVIEW OF LITERATURE

Koch, T., Gerber, C., & de Klerk, J. J. (2018) investigated the impact of these social media on the process of recruitment in South Africa. Primary data was collected using semi structured interviews and thematic analysis was done using 12 samples comprising wide range of industries in South Africa. The popular social media such as twitter and Facebook were used comparatively lesser than LinkedIn in South Africa. Recruiters, in order to execute effective recruitment process need to apply tools such as social media particularly LinkedIn. This was the practical and managerial implication of the study. It is found that the process of recruitment has become easier now days than before but it also could need lots of proper advertisement in popular media or an advertisement should be given in the website of the organizations for the success of this process. It indicated that there would be wider chance of attracting the candidates.

Williams, L. A. (2017) focused on how human resource management particularly the areas such as recruitment, selection, retention and termination of employees are affected by social media. All the primary data needed were collected through survey monkey from professionals of human resource management primarily in the region of southeastern America. Employers were questioned about

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the merits and demerits of using social media such as LinkedIn, Facebook, and Twitter in areas of human resource management. The study found various advantages like wider and diverse applicant pools, employee recognition, and internal organization communication. Results however revealed certain disadvantages such as lawsuits, wrongful termination of employees and discrimination issues.

Masa'd (2015) assessed how employers used the social media for the recruitment process of the organization. Additionally the most used social networking site by the employers was also found so that both employers and employees would gain insights about their own personal experience with various networking sites. Conceptual model was developed and hypothetically tested using various tools. Certain qualities of social media networking sites such as security/privacy ease of navigation, popularity among applicants, information quality and networking scope. These qualities were compared with the qualities of effective recruitment such as target group orientation, costs, time, diversity of applicants and quality of applicants/applications. It is found that employers for filling their vacancies, they select candidates from looking at networking scope of these social networking sites.

4. HYPOTHESIS DEVELOPMENT

It provides the basis for conceptual understanding of E-Recruitment practices within the managerial and business environment. The analysis of variables of social media network and are the starting point of the study. It entails the key trends of various modules in the recruitment process and interrelated activities are analyzed. The entire pattern is developed to in order to find out the satisfaction of employees through E-Selection.

Thus the following qualities of social media networking sites are chosen as second order constructs. Quality of Information, Popularity among Applicants, Ease of Navigation, Security or Privacy of Information, Quality of Application, Time Saving. Items were formulated to propose relationship between dependent and independent variables

H₀1: There is no significant difference in E-Selection based on gender

H₀2: There is no significant difference in Social Media Network based on Experience of the Job Seeker

H₀3: There is no significant difference in Frequency of Updating Information based on Experience of Job seekers

H₀4: There is no significant relationship between effectiveness of social media network and satisfaction through e-selection.

5. DATA ANALYSIS AND INTERPRETATION

Fortune 500 companies in India are taken as sampling unit. The fortune 500 ranking is the rankings given to top

business organizations in India which is completely based on gross revenue of the company and the latest sales. Every year the list is published by Fortune magazine. It is found that the corporate governance, ethical principles, and management system everything sounds good in these corporations. So it is believed that these organizations use latest recruitment methods to recruit employees.

Krejcie, R. V., & Morgan, D. W. (1970) suggested determination of sample size for the known population.

$$s = X^2 NP(1 - P) \div d (N - 1) + X^2 P(1 - P)$$

s = required size of sample

N = size of population = 500

X² = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

P = the population proportion (assumed to be .50 since this would provide the maximum sample size). d = the degree of accuracy expressed as a proportion (.05).

$$\text{Sample Size (s)} = \frac{X^2 NP(1-P)}{d^2(N-1) + X^2 P(1-P)}$$

$$\begin{aligned} \Rightarrow & 3.841 * 500 * 0.5(1-0.5) / (0.05)^2(500) + \\ & (3.841 * (0.5(1-0.5))) \\ & = 217 \end{aligned}$$

The researcher got around 350 responses. After cleaning data the final sample chosen was **320**.

Around 420 questionnaires were distributed to employees working in fortune 500 companies and around 355 questionnaires are filled and returned back to researcher. After checking normality certain unmatched data are deleted so that the final data is fit for analysis. Finally 320 samples are fit for analysis.

$$\text{Rate of Response} = \frac{\text{Responder Quantity}}{\text{Test Quantity}} * 100 = (355/420) * 100 = 85 \%$$

The solution for the problem so formed is obtained after analyzing the data which is collected from the respondents. For analyzing data, IBM SPSS STATISTICS 23 is used.

Table 1: Reliability of the Questionnaire (Variable wise):

S. No	Description of Variables	Number of Items	Cronbach's Alpha
1.	Effectiveness of Social Media Network	13	0.980
2.	Satisfaction through E-Selection	10	0.933

Table 2: Item level descriptive statistics for Effectiveness of Social Media Network

S. No	Description	Range	Minimum	Maximum	Mean	Standard Deviation	Priority Ranking
1.	The job related information obtained through social media network was adequate	4	1	5	2.90	1.009	10
2.	The job related information was trustworthy	4	1	5	3.09	1.144	5
3.	The job related information was up to date	4	1	5	3.19	1.052	3
4.	The online job related information was easy to understand	4	1	5	3.10	1.103	4
5.	The social media network used by the company to select candidate was popular among recruits	4	1	5	3.28	1.101	1
6.	The social media network used by the company was user friendly	4	1	5	3.07	1.261	7
7.	The social media network helped the recruits to improve their skills	4	1	5	2.99	1.091	9
8.	The social media network was safe from intrusion and personal information was protected	4	1	5	3.21	1.116	2
9.	The information collected from recruits for one purpose is used for another situation by the company	4	1	5	3.08	1.166	6
10.	Quality of applicant's resume was considered in social media network. Also Any kind of application can be uploaded in social media network	4	1	5	2.08	1.267	13
11.	Time consumed for searching job has decreased due to social media network	4	1	5	2.89	1.153	11
12.	Job related information was presented for long time in social media network by the company	4	1	5	3.01	.957	8
13.	Time was excessively consumed for uploading documents in social media network by the recruits	4	1	5	2.09	.933	12

Table 2 provides the descriptive statistics for the items of effectiveness of social media network. According to the priority of mean value, the item "The social media network used by the company to select candidate was popular among recruits" scored highest mean value of 3.28 with standard deviation of 1.101 and secured first rank. The item "The social media network was safe from intrusion and personal information was protected" with mean value of 3.21 and standard deviation of 1.116. The item "The job related information was up to date" secured third rank with mean value of 3.19 and standard deviation of 1.052. The item "The online job related information was easy to understand" secured fourth rank of mean value 3.10 and standard deviation of 1.103. The item "The job related information was trustworthy" secured fifth rank with mean value of 3.09 and standard deviation of 1.144. The item "The information collected from recruits for one purpose is used for another situation by the company" secured sixth rank with 3.08 mean value and standard deviation of 1.166. The item "The social media network used by the company was user friendly" secured seventh rank with mean value of 3.07 and standard deviation of 1.261. The item "Job related information was presented for long time in social media network by the company" with mean value of 3.01 and standard deviation of 0.957. The item "The social media network helped the recruits to improve their skills" secured ninth rank with mean value of 2.99 and standard deviation of 1.091. The item "The job related information obtained through social media network was adequate" secured tenth rank with mean value of 2.90 and standard deviation of 1.009. The item "Time consumed for searching job has decreased due to social media network" secured eleventh rank with mean value of 2.89 and standard deviation of 1.153. The item "Time was excessively consumed for uploading documents in social media network by the recruits" secured twelfth rank with mean value of 2.09 and standard deviation 0.933. The item "Quality of applicant's resume was considered in social media network. Also Any kind of application can be uploaded in social media network" secured last rank i.e. thirteenth rank with mean value of 2.08 and standard deviation of 1.267.

INDEPENDENT SAMPLE T-TEST

H₀₁: There is no significant difference in E-Selection based on gender

Table 3: Effect of gender on Satisfaction through E-Selection

Dependent Variable	Gender	N	Mean	T Value	P Value	Hypothesis
Satisfaction through Selection	MALE	179	3.88	0.274	0.127	H ₀₁ Accepted
	FEMALE	141	4.09			

INTERPRETATION

Independent sample t-test is used to test the H₀₁ hypothesis. It is shown in table 3 The results of Independent t test did not show any significant difference between between gender i.e. Male (3.88 is mean value), Female (4.09 is mean value) and Satisfaction through E-Selection. The result of Levene's test for quality of variances reveals T value and P value. T value is 0.274 and

P value is 0.127 which is greater than significant P Value of 0.05. Hence it is calculated that both male and female respondents show similar pattern in deriving satisfaction through E-Selection and Recruitment processes. Thence the hypothesis "H₀₁: There is no significant difference in E-Selection based on gender" is accepted.

ANALYSIS OF VARIANCE

H₀₂: There is no significant difference in Social Media Network based on Experience of the Job Seeker

Table 4 : Effect of Experience of the Job Seeker and Effectiveness of Social Media Network

	Sum of Squares	df	Mean Square	F	Sig.	Hypot hesis
Between Groups	5.710	3	1.903	1.945	.122	H ₀₂ Accepted
Within Groups	309.290	316	.979			
Total	315.000	319				

Dependent Variable: Effectiveness of Social Media Network

INTERPRETATION

Analysis of Variance is used to find out the significance difference between Experience of the Job Seeker and Effectiveness of Social Media Network. Table 4 reveals the result of ANOVA. It is found that F value is 1.945 and P value is 0.122 which is greater than 0.05. So, H₀₂ hypothesis is accepted. It can be concluded that the Job Seekers from various years of experience shows similar patterns towards effectiveness of social media network. There is no significant difference between Experience of the Job Seeker and Effectiveness of Social Media Network (H₀₂) is accepted

INTERPRETATION

Table 5 shows that out of 320 respondents, with experience below 5 years 6 Job seekers are daily updating information , 4 respondents are updating information once in a week, 9 respondents are updating twice in a week, 5 respondents are updating once a fortnight, 27 respondents are updating information monthly once. With experience between 5 to 10 years 17 Job seekers are updating information daily, 26 are updating once in a week, 22 are updating twice in a week, 18 are updating once a fortnight, 87 are updating information monthly once. With experience between 11 to 15 years 3 respondents are updating information daily, 6 are updating once in a week, 6 are updating twice in a week, 12 are updating once a fortnight, 56 are updating monthly once. With experience above 15 years 2 respondents are updating information daily, 3 are updating once in a week, 1 respondent is updating information twice in a week, 1 respondent is updating information once a fortnight, 9 respondents are updating information monthly once. It is interpreted that based on the number of years of experience of job seekers, frequency of updating information varies.

Table 6: Chi-Square Test between Experience of job seeker and Frequency of Updating Information
Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Hypothesis
Pearson Chi-Square	15.517 ^a	12	.214	H0 accepted
Likelihood Ratio	16.416	12	.173	
Linear-by-Linear Association	3.044	1	.081	
N of Valid Cases	320			

H₀3 : There is no significant difference in Frequency of Updating Information based on Experience of job seekers

Table 5: Cross Tabulation between Experience of job seekers and Frequency of Updating Information

	HR.FREQUENCY OF UPDATING THE MESSAGES FROM SOCIAL MEDIA NETWORKS?						Total
		Daily	Once in a Week	Twice in a Week	Once a Fortnight	Monthly	
Below 5 years		6	4	9	5	27	51
5 years to 10 years		17	26	22	18	87	170
11 years to 15 years		3	6	6	12	56	83
Above 15 years		2	3	1	1	9	16
Total		28	39	38	36	179	320

INTERPRETATION

Table 6 shows the result of Chi-square test. It is seen that P value is .214 which is greater than 0.05 so hypotheses H010 is accepted and it is concluded that there is no association between Experience of job seekers and frequency of updating information from HR Portal and Social Media Network.

H₀4: There is no significant relationship between effectiveness of social media network and satisfaction through e-selection.

Table 7: Pearson Correlation Coefficient between variables of effectiveness of social media network and satisfaction through e-selection.

Variables	1	2	3	4	5	6	7	8	9
1. Quality of information	1								
2. Popularity among applicants	.956**	1							

3. Ease of navigation	.954**	.950**	1						
4. Security or privacy of information	.918**	.914**	.898**	1					
5. Quality of application	.876**	.857**	.895**	.905**	1				
6. Time saving	.846**	.827**	.820**	.748**	.739**	1			
7. Satisfaction Over Traditional Recruitment	.745**	.757**	.751**	.732**	.725**	.562**	1		
8. Organization change and development	.718**	.736**	.728**	.704**	.720**	.553**	.971**	1	
9. Complete competitive Advantage	.742**	.752**	.746**	.731**	.714**	.555**	.993**	.940**	1

** . Correlation is significant at the 0.01 level (2-tailed).

INTERPRETATION

The Table 7 reveals the Pearson correlation coefficient between variables of effectiveness of social media network and satisfaction through e-selection. It is proved that all the variables under this construct in the inter correlation matrix are significant at 0.01 level (2 tailed). 95 % of relationship is found between Quality of information and Popularity among applicants. 95 % relationship between ease of navigation and quality of information. 95 % of relationship between ease of navigation and popularity among applicants. 91 % of relationship is found between security or privacy of information and quality of information. 91 % of relationship is found between security or privacy of information and popularity among applicants. 89 % of relationship between Security or privacy of information and Ease of navigation. 87 % of relationship is found between Quality of application and Quality of information. 85 % of relationship is found between Quality of application and Popularity among applicants. 89 % of relationship is found between Quality of application and ease of navigation. 90 % of relationship is found between Quality of application and Security or privacy of information. 84 % of relationship is found time saving and quality of information. 82 % of relationship between time saving and popularity among applicants. 82 % of relationship is found between time saving and ease of navigation. 74 % of relationship is found between time saving and security or privacy of information. 73 % of relationship is found between time saving and quality of application. 74 % of relationship is found between satisfaction over traditional recruitment and quality of information. 75 % of relationship is found between satisfaction over traditional recruitment and popularity among applicants. 75 % of relationship is found between satisfaction over traditional recruitment and ease of navigation. 73 % of relationship is found between satisfaction over traditional recruitment and security or privacy of information. 72 % of relationship is found between satisfaction over traditional recruitment and quality of application. 56 % of relationship is found between satisfaction over traditional recruitment and time saving. 71 % of relationship is found between organization change and

development and quality of information. 73 % of relationship is found between organization change and development and popularity among applicants. 72 % of relationship is found between organization change and development and ease of navigation. 70 % of relationship is found between organization change and development and security or privacy of information. 72 % of relationship is found between organization change and development and quality of applications. 55 % of relationship is found between organization change and development and time saving. 97 % of relationship is found between organization change and development and satisfaction over traditional recruitment. 74 % of relationship is found between complete competitive advantage and quality of application. 75 % of relationship is found between complete competitive advantage and popularity among applicants. 74 % of relationship is found between complete competitive advantage and development and ease of navigation. 73 % of relationship is found between complete competitive advantage and security or privacy of information. 71 % of relationship is found between complete competitive advantage and quality of application. 55 % of relationship is found between complete competitive advantage and time saving. 99 % of relationship is found between complete competitive advantage and satisfaction over traditional recruitment. 94 % of relationship is between is found between complete competitive advantage and organization change and development. **H₀4** are rejected and it is interpreted that there is relationship between variables of effectiveness of social media network and satisfaction through e-selection.

H₀4: There is no significant relationship between effectiveness of social media network and satisfaction through e-selection.

This multiple regression model measures the combined effect of variables of effectiveness of social media network on satisfaction through e-selection. X₁ is quality of information, X₂ is popularity among applicants, X₃ is Ease of Navigation, X₄ is Security or Privacy of Information, X₅ is Quality of Application, X₆ is Time Saving. Y₂ is Satisfaction through E Selection.

The regression equation which includes all the variables is given below.

$$Y_2 = b_{2a} + b_{2a1}X_1 + b_{2a2}X_2 + b_{2a3}X_3 + b_{2a4}X_4 + b_{2a5}X_5 + b_{2a6}X_6$$

b_{2a} = Regression Constant

b_{2a1}, b_{2a2}, b_{2a3}, b_{2a4}, b_{2a5}, b_{2a6} = Regression Coefficients

Table 8: Regression Model Summary for Relationship between Variables of Effectiveness of Social Media Network and Satisfaction through E Selection

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
	.786 ^a	.617	.610	.431	84.213	.000 ^b

- a. Predictors: (Constant), Time Saving, Quality of Application, Popularity among Applicants, Security or Privacy of Information, Ease of Navigation, Quality of Information

Table 8 shows that P Value is 0.000 which is less than the cut off value 0.05 so the hypothesis **H₀4** is rejected, proving that variables of effectiveness of social media network depends on satisfaction through e-selection. The model is said to be fit since adjusted R square is shown as 61 % Table 9 Regression Coefficients for Model of Relationship between Variables of Effectiveness of Social Media Network and Satisfaction through E Selection Dependent Variable: Satisfaction through E Selection According to the beta weights, the order of importance of variables of effectiveness of social media network which influence on satisfaction through E-Selection based on unstandardized coefficients is tabulated as follows.

Table 10: Order of Importance of Variables of Effectiveness of Social Media Network on Satisfaction through E Selection

Variables
Popularity among Applicants
Quality of Application
Time Saving
Quality of Information
Ease of Navigation
Security or Privacy of Information

(Variables in bold indicates significant variables)

Table 10 Indicates that Popularity among applicants, Quality of Application and Time Saving are the vital variables that contribute to the satisfaction through E-Selection. The resulted equation after including coefficients of all the variables is as follows:

$$Y_2 = b_{2a} + b_{2a1}X_1 + b_{2a2}X_2 + b_{2a3}X_3 + b_{2a4}X_4 + b_{2a5}X_5 + b_{2a6}X_6$$

Satisfaction through E-Selection = 2.545 + 0.139 quality of information + 0.305 popularity among applicants + 0.76 ease of navigation -0.22 security or privacy of information + 0.138 quality of application - 0.215 time saving. So it is concluded that effectiveness of social media network depends upon satisfaction through E-Selection.

6. CONCLUSION

When social sites are considered, some professional networks such as LinkedIn served good for most of the Job seekers to search jobs. 72.8 % use Linked In as professional social communication network. The effectiveness of social media network on satisfaction through e-selection is found using regression model. The model is said to be fit for 61 %. It is highly exciting to find the most important variables which influence on dependent variable based on the regression weights. Popularity among Applicants, Quality of Application, and Time Saving are the most significant variables. . It is concluded that social media network influence E-Recruitment and Selection.

REFERENCES

- [1] Abel, S. (2011). The role of Social Networking Sites in recruitment: Results of a quantitative study among German companies. (Master Thesis, University of Twente). Retrieved from https://essay.utwente.nl/61154/1/MSc_S_Abel.pdf
 - [2] Compton, R. L. (2009). Effective recruitment and selection practices. CCH Australia Limited.
 - [3] Fawzieh Mohammed Masa'd (2015). Journal of Knowledge Management, Economics and Information Technology: Deployment of Social Media in the Recruitment Process.
 - [4] Koch, T., Gerber, C., & de Klerk, J. J. (2018). The impact of social media on recruitment: Are you LinkedIn?. SA Journal of Human Resource Management, 16(1), 1-14.
 - [5] Masa'd, F.M. (2015). Deployment of Social Media in the Recruitment Process. Journal of Knowledge Management, Economics and Information Technology, V (1), 1-24.
 - [6] Ramkumar, A. & Rajini.G (2018 a). A Conceptual Study on How Electronic Recruitment Tools Simplify the Hiring Process. Indian Journal of Public Health, 9(6).
 - [7] Ramkumar, A. & Rajini.G (2018 b). E-Recruitment through Job Portals and Social Media Network: Challenges & Opportunities. Indian Journal of Public Health, 9(6), 144.
 - [8] Ramkumar, A., & Rajini, G. (2019 a). A Study on Innovative Recruitment Techniques and It's Impact on Job Seekers. Indian Journal of Public Health, 10(1).
 - [9] Ramkumar, A., & Rajini, G. (2019 b). Effective Recruitment and Selection System for the IT Software Industry in India. Indian Journal of Public Health, 10(1), 75.
 - [10] Ramkumar.A & Rajini.G (2018 c) Personality and success level prediction of individuals using soft skills measures and its performance evaluation, International Journal of Innovation, creativity and change, 4(1).
 - [11] Ramkumar.A & Rajini.G (2018 d), Innovative Human Resource Practices and Selected HR Outcomes in Software Firms, International Journal of Innovation, creativity and change, 4(2).
 - [12] Rao, C., Nageswara, B., & Neeraja, B. (2018). The Impacts of Goods and Services Tax (GST) on Middle Income Earners in India. Indian Journal of Public Health Research & Development, 9(6).
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