An Analysis of Job Application Method Preference: Comparing Online and Traditional Recruitment Systems

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An Analysis of Job Application Method Preference: Comparing Online and Traditional Recruitment Systems

Uyi Lawani

The Brad D. Smith Schools of Business
Faculty Research Day, Friday, April 12
Drinko Library, Room 402
Presentation Agenda

- Introduction
- Literature Review
- Hypotheses & Research Model
- Research Method
- Results
- Discussion
- Limitations
- Conclusion/Questions
Introduction

• Organizations survive almost exclusively on the quality of their human resources and its management.

• Human resource recruitment is therefore very crucial to firms; it constitutes the pathway for the engagement and ultimate on-boarding of qualified job seekers.
Introduction

• DeNisi & Griffin (2001:143): recruiting is “the process of developing a pool of qualified applicants who are interested in working for an organization and from which an organization might reasonably select the best individual or individuals to hire for employment.”

• Rosoiu & Popescu (2016): the selection process for human resources in a company must be very well structured and planned.
Introduction

• The preponderance of technology, especially the internet, has progressively impacted on the processes adopted by firms in the labor hiring process.

• Lee (2016): The emergence of web-enabled methods have supposedly empowered both job seekers and recruiters.

• Harrison (2018): Even though traditional methods of recruiting are effective for attracting applicants, new technologies have emerged and changed the way organizations communicate with potential applicants.
Introduction

• Research Objective: To assess job applicants’ preference for one method of recruitment over the other
  • In other words, can we take it for granted that there is a shift in paradigm from the hitherto traditional methods of recruiting to online methods?
Literature Review

- Two alternative explanations attempt to explain why some recruitment methods outperform others
  - Wanous (1980): The “realistic information” hypothesis
Literature Review

• Cardiello (2002): Results from study failed to find a significant correlation between either recruitment method and job satisfaction or level of retention; found significant relationship between overall recruiter satisfaction, retention, and certain aspects of job satisfaction.

• Smith (2015): Found that 100% of big United States’ companies now use web-based systems to recruit individuals.
Hypotheses and Research Model

- Study examines the relationship between four specific dependent variables and the independent variable (application method).

- The dependent variables include access to information, ease of use, career path information, and initial stage short-listing or selection.
Hypotheses and Research Model

• Hypothesis 1: access to information depends on either traditional or online method of application.

• Hypothesis 2: the ease of the application process depends on either traditional or online application method.
Hypotheses and Research Model

• Hypothesis 3: initial stage short-listing (selection) depends on either traditional or online method of application.

• Hypothesis 4: career path information depends on either traditional or online application method.
Hypotheses and Research Model

Hypotheses:

- **H1**: Access to Information
- **H2**: Ease of Use
- **H3**: Application Method: Traditional or E-recruiting
- **H4**: Initial Stage: Short-list (Selection)

Career Path Information
Research Method

• A survey questionnaire was designed and administered on college students; completed by 98 respondents; all of whom had previously applied for a job at least once; 90% of respondents were seniors, there were at least 2 graduate students

• The questions were structured to elicit ‘forced choice’ (Kerlinger & Lee, 2000) – respondents were expected to make one (and in some cases more than one) choice from a list of alternative forms of the two methods (traditional and electronic).
Research Method

• The questionnaire was split in three parts:
  • the first part captured demographic data: class level, etc.,
  • the second part consisted of items aimed at capturing data for the measurement of the constructs depicted in the hypotheses model shown above,
  • the third part was a rank-order item to capture respondents overall preferred application method
Research Method

- Analysis was done using Contingency Tables and the Chi Square Test for Independence

\[ X^2 = \sum \frac{(O - \hat{E})^2}{\hat{E}} \]

Where: 
- \( X^2 \) = the calculated Chi-square
- \( \Sigma \) = Greek letter sigma connoting summation over all cells of the contingency table consisting of rows and columns
- \( O \) = Observed frequency in the cell
- \( \hat{E} \) = estimated expected frequency for the cell

(Kvanli, Pavur, & Keeling, 2003)
Research Method

• The testing procedure involves a comparison between the calculated test statistic ($X^2$) and the critical statistic ($X^2_a$, df).
  • Where $a = \text{confidence level typically 0.05}$ and $df = \text{degrees of freedom (rows} - 1) \times (\text{cols} - 1)$.
  • We reject $H_0$ if $X^2 > X^2_a$, df. The critical statistic was obtained from tables already provided, (Kvanli et al, 2003).
Results

• After collating and tabulating the responses, the resulting number of usable observations for each dependent variable are as follows:
  • Access to Information, 67;
  • Ease of Use, 68;
  • Initial Stage Short-listing, 59 and;
  • Career Path Information, 63.
Results

Test statistic = 6.9618; Critical statistic, $X^2_{0.05, 1} = 3.8415$; $X^2 (6.9618) > X^2_{0.05} (3.8415)$.

Therefore, we reject $H_0$; access to information is dependent on method of application.

<table>
<thead>
<tr>
<th>Method of Application</th>
<th>H1</th>
<th>Access to Information</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>Observed</td>
<td></td>
<td>Expected</td>
</tr>
<tr>
<td>Traditional</td>
<td>19</td>
<td>18</td>
<td>37</td>
</tr>
<tr>
<td>Online</td>
<td>6</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>42</td>
<td>67</td>
</tr>
</tbody>
</table>

Chi-Square = 6.9618
Results

Test statistic = 9.9536; Critical statistic, $X^2_{0.05, 1} = 3.8415$; $X^2 (9.9536) > X^2_{0.05} (3.8415)$.

Therefore, we reject $H_0$; ease of use is dependent on method of application.

<table>
<thead>
<tr>
<th>Method of Application</th>
<th>Observed</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Traditional</td>
<td>Online</td>
</tr>
<tr>
<td>Traditional</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>Online</td>
<td>2</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td><strong>18</strong></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

Chi-Square = 9.9536
Results

Test statistic = 1.166; Critical statistic, $X^2_{0.05, 1} = 3.8415$; $X^2 (1.166) < X^2_{0.05} (3.8415)$.

Therefore, we cannot reject $H_0$; initial stage short-listing and method of application are independent.

<table>
<thead>
<tr>
<th>Method of Application</th>
<th>Observed</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>36</td>
<td>35.1186</td>
</tr>
<tr>
<td>Online</td>
<td>20</td>
<td>20.8814</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>35.1186</td>
</tr>
</tbody>
</table>

Chi-Square = 1.166
Results

Test statistic = 0.3737; Critical statistic, $\chi^2_{0.05, 1} = 3.8415$; $\chi^2(0.3737) < \chi^2_{0.05}(3.8415)$.

Therefore, we cannot reject $H_0$; career path information and method of application are independent.

<table>
<thead>
<tr>
<th>H4</th>
<th>Career Path Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Observed</td>
<td></td>
</tr>
<tr>
<td>Method of Application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>37</td>
<td>6</td>
</tr>
<tr>
<td>Online</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>10</td>
</tr>
</tbody>
</table>

Chi-Square = 0.3737
## Results

### Summary of Hypotheses Test Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Test Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Supported</td>
</tr>
<tr>
<td>2</td>
<td>Supported</td>
</tr>
<tr>
<td>3</td>
<td>Not Supported</td>
</tr>
<tr>
<td>4</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>
Results

Applicants’ Preference based on Access to Information

- 51% Employee from job
- 20% Print Ad
- 13% Job Fair
- 7% Recruiter
- 5% Internship
- 3% Corporate Website
- 1% Online Job Board
- 1% Other
Results

Applicants Preference Based on Ease of Use

- Employee from job: 22%
- Print Ad: 13%
- Job Fair: 7%
- Recruiter: 9%
- Internship: 2%
- Corporate Website: 46%
- Online Job Board: 1%
Discussion

• The findings suggest that more than half of the applicants surveyed preferred a company’s corporate website for access to information about a job opening and the application process.

• 84% of the respondents feel that corporate websites, employees from the job and recruiters provide the best access to information among other methods.

• An organization that is interested in ensuring that applicants have access to relevant information would be better served by developing a hybrid approach along this line with a little emphasis on their website – building one if they currently do not have and improving on what they already have.
Discussion

• The relationship between application method and ease of use is intuitive – findings from this study support the view.
• Applicants relate with a process that is easily usable and that guarantees a friendly interface between applicant and method.
• 81% of the respondents feel that corporate websites, online job boards and employees from the job are the easiest ways to apply for a job.
• Again there is an intersection that includes these two application methods – Traditional and electronic.
Limitation of Study

• Efforts to compare the reliability test (Cronbach’s alpha) result obtained with others from similar studies were not conclusive, partly because of the scanty literature on this particular topic.
Future Research Considerations

- Should application methods offered by employers be generic to every category of prospective employee, or should methods vary according to the position and status of the targeted candidate?
- What blend of methods or degree of hybridization should firms adopt to ensure that they pool the most qualified and select the best candidates using the least possible amount of resources?
- How do recruitment methods shape a candidates opinion of the firm and enhance an organization’s brand?
- Is there any empirical evidence for the centrality of recruitment methods to the robustness of the configurational model of human resource management and the resource based view of the firm?
Conclusion

• Can we take it for granted that the paradigm has shifted from traditional methods of recruiting to online forms?
  • From the results of this study, No!
Any Questions/Comments