

## **An Exploratory Study on awareness of different online tools and technologies used in Recruitment and Selection Process among Recruiters in IT Companies**

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### **Abstract**

Recruitment is the method of searching and hiring the best-qualified aspirant from inside or outside of a business for a job opening, in a timely and cost effective manner. The recruitment and selection method includes analyzing the necessities of a work, attracting employees to that job, screening and selecting applicants, hiring, and integrating the new employee to the organization. So far since its opening, online recruitment has come a long way and has become the latest inclination in HR processes. Human resource is the most important resource for any organization in any sector. The use of internet has altered the overall process of Recruitment and Selection. Many organizations have already employed different online tools and technologies in different stages of their recruitment and selection process. In current paper an attempt has been made to examine the awareness of different tools and technologies related to recruitment and selection process and their usage in IT companies of Gujarat. Primary data was collected from Recruiters of various IT companies through structured questionnaire and further data was analyzed using various statistical tools to derive meaningful conclusion. The result/outcome of this study will be useful in strategies to effectively implement various online tools and technologies in their recruitment and selection process.

**Keywords:** *Recruitment, Selection, Process, Online Tools, Online Technologies, IT.*

### **Introduction**

Recruitment is the process of drawing a group of applicants to a certain post, and selection comes next. They make up the Recruitment and Selection process, one of the oldest intervention and research areas in organizational psychology. Due to the necessity of having access to the most qualified personnel and the growing organizational competitiveness in today's complicated environment, modifications have been made to the recruitment process, making it more crucial than ever. The work market has changed as a result of growing globalization, the use of new technology, and other occurrences. Online Recruitment and Selection is a significant source of hiring in a constantly evolving environment where new technologies develop quickly. Online employment portals and social networking websites are expanding significantly, and the number of job seekers employing this recruitment strategy is

rising steadily in accordance with this trend. This makes it even more crucial for recruiters to learn about the many internet tools that can improve the selection and recruitment process as a whole. Thus, this study assesses the knowledge of various web technologies used in the recruitment and selection process among recruiters, specifically in the IT industry.

**Online Recruitment and Selection evolution and design** Recruitment function occupies an important role in the organization because companies are always looking to attract the most talented employees on a job that can generate competitive advantage. As the psychologist and physician George Crane said "There is no future in any job. The future lies in the man who holds the job ". Deillon (2014) explain very simple that e-recruitment "is a new technological mean for selecting one of the companies' most crucial resources, i.e. human resource ". Deillon (2014) quotes also Malinowski, Keim, & Weitzel when he is describing the four different phases of e-recruitment evolution. They found two dimensions “degree of process integration” and “time” to determine the four phases (Figure 1).

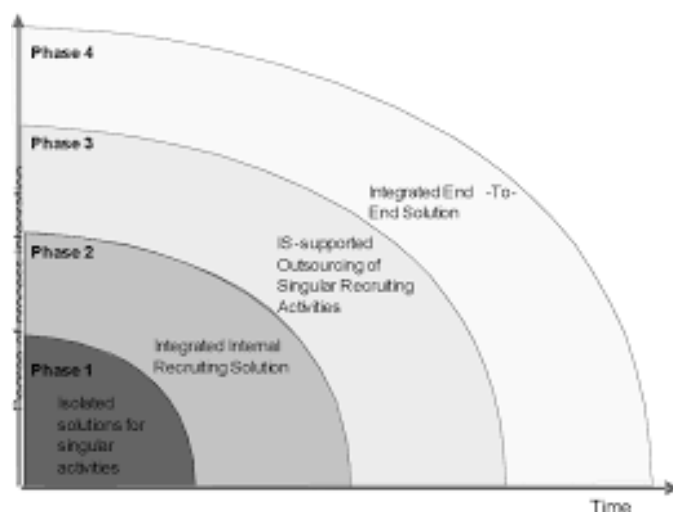
Phase 1: The introduction of isolated solutions in the e-recruitment process for single activities such as the applicant data storage in computer systems. With the using of Internet appeared the possibility to post vacancies on the company's website or on the job portals, but also the possibility to search of a job and CV databases of these portals.

Phase 2: In this phase appears the integrated applicant management system. This system wants to attract potential candidates, post vacancies, and receive applications from those who are looking for a job and even the final selection.

Phase 3: The information systems ensure compatibility of external service providers with company information systems providing a continuous flow in the recruitment process.

Phase 4: It involves a final solution that covers the entire recruitment process, integrating computer systems but also web-based tools that allow data transfer between the company and other external parties.

**Figure 1: The Recruitment Phase Model**



Source: Malinowski, Keim, & Weitzel, 2005 quoted by Deillon Céline, 2014

### **Recruitment and Selection Tools**

Recruitment and Selection tools help in automating and streamlining the process of hiring. This is by generating interest, screening resumes, conducting interviews, and hiring employees.

Due to their significant assistance in the hiring process, these tools or recruitment software are actually the ideal helpers for any HR staff. They facilitate the hiring process from start to finish, maximizing efficiency with the least amount of work.

This paper has taken following Recruitment and Selection tools into consideration:

- Recruitment Tools
  - Glassdoor: Glassdoor is a website whereby current or former employee of the company can post reviews about the company. They can also view and submit their salaries on it. It is also used for searching and applying for jobs
  - LinkedIn: LinkedIn is a career development and professional networking site whereby users as a Job Seeker can post their resumes and as an employer can post jobs.
  - Social Media: Social Media such as Facebook, Twitter, Instagram helps to bring qualified job seekers to your postings and also cultivates interest among passive job seekers in your company.
  - Job Portals: These are the services that promote open positions on a company's hiring policy. Many companies post vacancies on a single platform in order to get maximum reach of job seekers. Naukri, Monster, Careerbuilder, Indeed are some of the examples of Job Portals.
- Selection Tools
  - Video Interview Tools: These technologies make it possible to conduct video interviews while accounting for many factors. Aside from tone of speech and word choice, other factors include facial expressions. Examples of these are Skype, HireVue, VidCruiter, Wepow, and others.
  - Applicant Tracking Systems: An Applicant Tracking System or ATS is another helpful automated recruitment system because of its database assistance to recruiters in talent acquisition. Examples of these tools are Greenhouse, Naukri RMS, Zoho Recruit, Talent Recruit, etc. In many cases they are also used for filtering resumes based on given criteria and keywords such as skills, schools attended, former employee etc.
  - Learning Tools: These tools help in on boarding and conducting induction programs for new employees. For example Lessonly is a learning tool which helps the teams to learn and practice at their own pace and time.
  - Candidate Satisfaction Surveys: Candidates who have been part of recruitment and selection process are asked for their opinion regarding different stages of

the process with the help of Google Forms or Survey Monkey. Based on the surveys and polls the company can evaluate their recruitment and selection process.

- Background Check Tools: Background check tools are criminal or other public records searches, verifications of previous employments and references, identity, education and motor vehicle records.
- Reference Check Tools: Checkster is an automated reference checking system. It provides organizations the ability to best assess future employees in order to deliver the best services. It is a best practice way to move away from a paper and phone process to an electronic process.
- Skill Testing Tools: These tools enable employers to identify potential hires by evaluating working skills and their job readiness. Examples of this are eSkill and iMocha
- Programming Challenges: HackerRank is an online platform where programmers from all over the world come together to solve problems in a wide range of Computer Science domains such as algorithms, machine learning, or artificial intelligence, as well as to practice different programming paradigms like functional programming.
- Psychometric Tools: Psychometric tools outline the entire personality profile, behavior, flexibility, aptitude, creativity, communication, and problem-solving skills that are necessary to perform in a given position, they can serve as your reference model for any given position. Examples of Psychometric tools are Mindtools and Peoplogica.

### **Literature Reviews**

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- ◎ Blacksmith N. (2014) in her research on Three Ways Social Media and Technology have changed the world concluded that 83% of the organizations are using social media as a part of the recruitment process. She also concluded that LinkedIn is the top choice for most recruiters but Facebook and Twitter are used as well.
- ◎ Khillare P. and Shirsale S.(2017) in their research on A Conceptual Framework of E-Recruitment in Current Business Scenario concluded that a very little research has been done on the entire field of e-recruitment due to vast amount of gap to apply the current knowledge. The research mainly focused on applicant's desirability, reflection and awareness of organizations' corporate career websites
- ◎ Alghamdi B. and Alhardy F. (2019) in their research on An Intelligent Model for Online Recruitment Fraud Detection used two data mining algorithms Support Vector Machine for feature selections and Random Forest for classification. The research

concluded that major online recruitment frauds consist of email spam phishing and Cyber Bullying

- ◎ Faliagka E., Ramantas K. and Tsakalidis A. (2012) in their research on Application of Machine Learning Algorithms to an online Recruitment system developed an algorithm which extracted information from Candidate's LinkedIn Profile and also their social media presence and scores were assigned based on their personality traits. The approach was effective in online recruitment system application
- ◎ Ramkumar A. (2018) in his article E-Recruitment through Job Portals and Social Media Network: Challenges and Opportunities listed various pros and cons of E-recruitment and concluded that recruitment system should be able to attract right candidate, selection process should be based on eligible and sound criteria and tracking process should be integrated with the existing system.
- ◎ Derous E. and Fruyt F. (2016) in their article Developments in Recruitment and Selection Research said that technological advancements reshape the recruitment and selection practices with the help of multimedia tools (like mobile testing, video resume, use of LinkedIn etc.) and the use of online applicant tracking systems (as part of human resource information systems) that might increase the efficiency of the recruitment and assessment process to both recruiters and applicants. Although some multimedia applications like social networking websites, unproctored/mobile testing, and video resumes are increasingly used by applicants and practitioners, research is somewhat lagging behind as still not that much is known about the properties and efficacy of several technology- enhanced assessments compared to the more traditional recruitment and assessment tools.
- ◎ Frampton G., Shepherd J., Pickett K., Giffiths G. (2020) in their research Digital Tools for the recruitment and retention of participants in randomized controlled trials: a systematic map concluded that digital tools such as social media, data mining, email or text messaging could improve recruitment but an overview of this research is lacking. Most frequently studied digital tools are social media, internet sites, email and tv/radio for recruitment. Most of the studies measured efficiency (cost per recruited) but few studies have evaluated people's attitudes towards the use of digital tools

### **Need for the Study**

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The role of the recruiter is to get the best talent with minimal cost and in an efficient way. Main aim of the study is to grow curiosity among recruiters of different online tools available in the market for recruitment and selection process and trying to adopt them in their system, which in turn will help in smoothening and streamlining the process.

## **Research Methodology**

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### Research Objectives:

- To know the level of awareness of IT Recruiters about online Recruitment and Selection
- To identify the key online tools and technologies used by recruiters for hiring.
- To check the level of satisfaction of recruiters with online recruitment and selection
- To analyze relationship between awareness about online tools and technologies for selection and years of experience of the recruiter.

Research Design: Analytical and Exploratory Research

Type of Data: Primary Data

Data Collection Tool: Structured Questionnaire

Population: Small, Medium and Large IT Companies' Recruiters of Gujarat Region

Sample: All Recruiters of IT companies in Urban cities of Gujarat

Sample Size: 40 Recruiters IT Companies

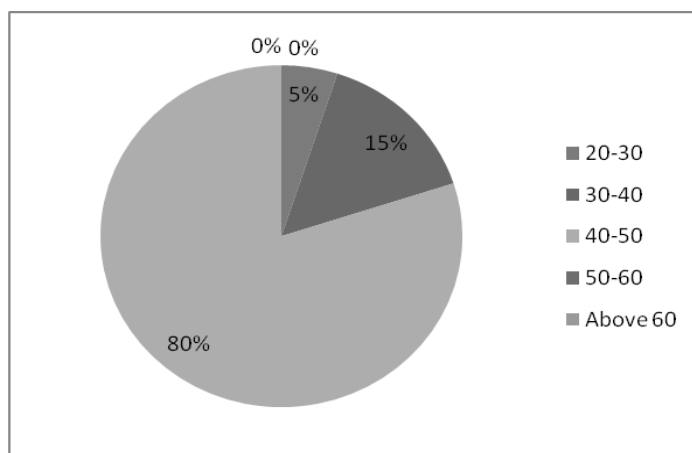
Sampling Methods: Convenience and Judgement Sampling Method

Analytical Tools: Chi-Square Hypothesis Test, Graphs and Tables

## **Findings**

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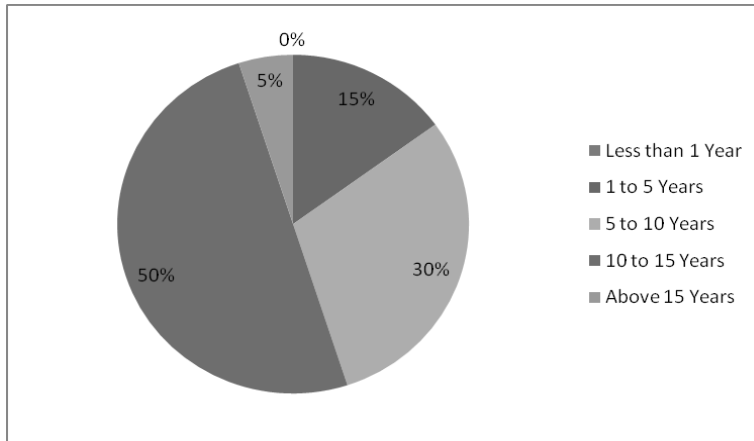
### **Chart 1: Age Wise Distribution**



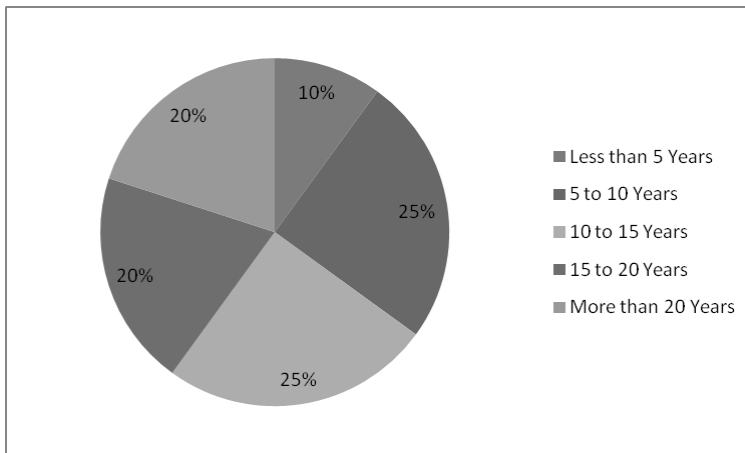
From chart 1 we can analyze that 80% of respondents are of 30-40 years age group whereas 15 % of respondents are of age group 40-50 years; 5% respondents of the age group 50-60 years. There were no respondents for the age group 20-30 years and above 60 years.

### **Chart 2: Analysis of Number of years of experience of a Recruiter**

From chart 2 we can analyze that 50% of respondents are the ones having Experience of 10-15 years; 30% are having experience of 5 to 10 years; 15% are having experience of 1 to 5 years; 5% are having experience of above 15 years and there were no respondent with less than 1 year of experience.

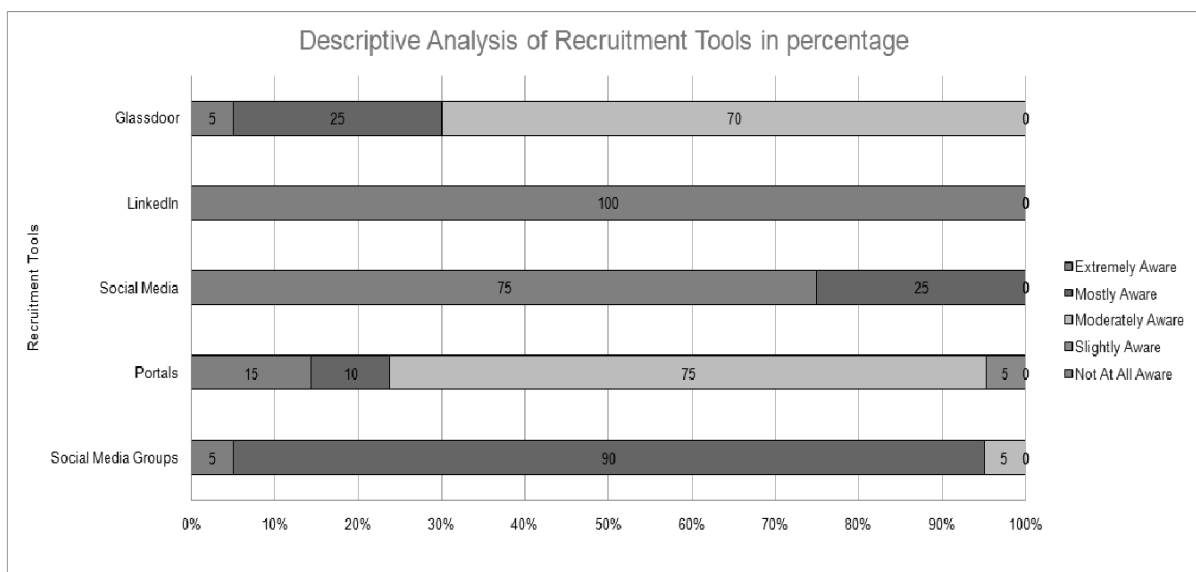


**Chart 3: Analysis of Number of Years the company is working since**



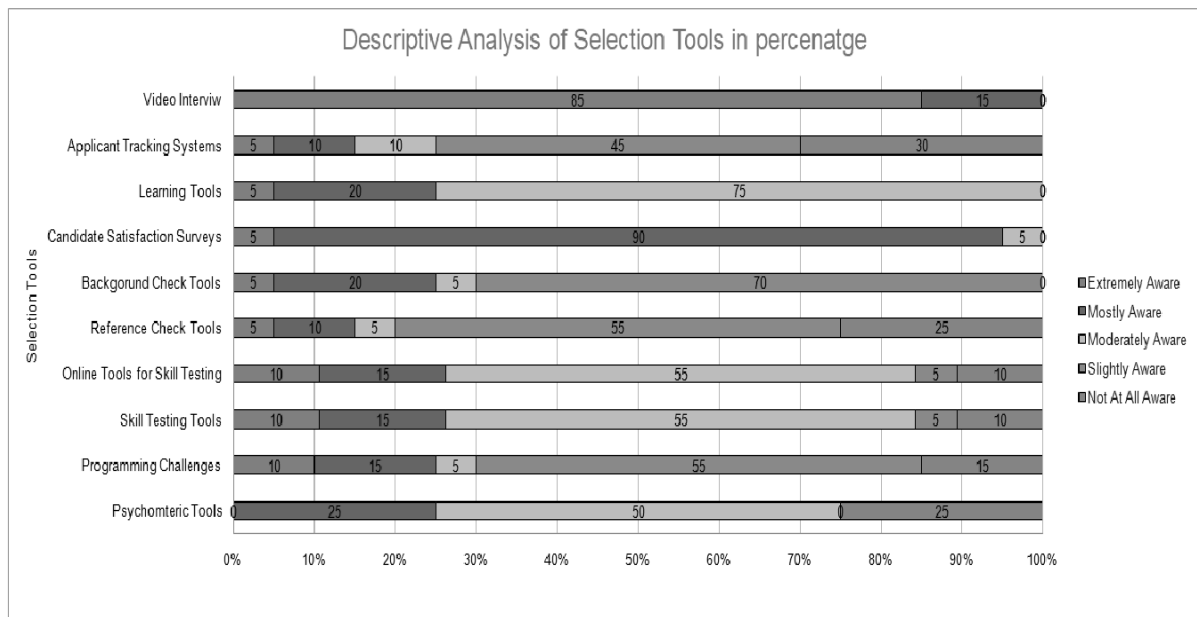
From above graph we can analyze that 25% of the data collected from company's are working since 5 to 10 years and 10 to 15 Years; 20% of the company's are working since 15 to 20 and More than 20 Years; whereas 10% of the company's are working since less than 5 Years.

**Chart 4: Descriptive Analysis of Recruitment Tools in percentage**



From the chart 4 we can analyze that all Recruiters are extremely aware about LinkedIn as a recruitment tool; 70% of the Recruiters are moderately aware of Glassdoor as Recruitment; 75% respondents are mostly of Social Media as recruitment tool; 75% are moderately aware whereas 5% are slightly aware of Job Portals as Recruitment tools.

**Chart 5: Descriptive Analysis of Selection Tools in Percentage**



From chart 5 we can analyze that 85% of the respondents are extremely aware of Video Interview as a selection tools; 45% are slightly aware whereas 30% are not at all aware of applicant tracking system as Selection Tools; 75% of the respondents are moderately aware of Learning Tools Selection Tools; 90% of the respondents are mostly aware of candidate Satisfaction Tools; 20% of the respondents are mostly aware and 70% are slightly aware of the Background check tools; 55% of the respondents are slightly aware and 25% are not at all aware of reference check tools; 55% of the respondents are moderately aware and 10% are not at all aware of skill testing tools; 55% are slightly aware and 15% are not at all aware of Programming Challenge tools and 50% of the respondents are moderately aware and 25% are not at all aware of Psychometric tools. The overall analysis majority of the respondents are quite well aware about video interview and candidate satisfaction surveys as selection tools but there are few respondents who are not at all aware of applicant tracking systems, Reference Check Tools, Skill Testing Tools, Programming Challenges and Psychometric Tools. The respondents are averagely aware about Learning tools, skill testing and psychometric tools.

**Table 1: Hypothesis Testing**

H0= Awareness about online tools and technologies for selection is independent of years of



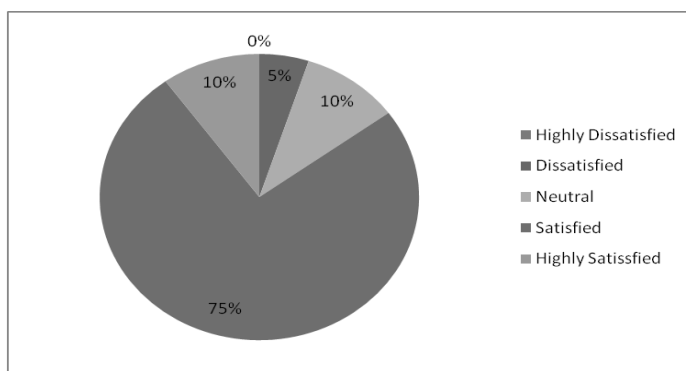
experience of the recruiter

H1= Awareness about online tools and technologies for selections is not independent of years of experience of the recruiter

Selection Tools	Chi Square Value	Significance Level	Results
Video Interview Tools - Skype	9.900 <sup>a</sup>	0.019	H0 is rejected
Applicant Tracking Systems - Greenhouse	21.738 <sup>a</sup>	0.010	H0 is rejected
Learning Tools - Lessonly	7.860 <sup>a</sup>	0.249	H0 is accepted
Candidate Satisfaction Surveys - Survey Monkey and Google Forms	11.138 <sup>a</sup>	0.084	H0 is accepted
Background Check Tools - Hire Right and Check	25.714 <sup>a</sup>	0.002	H0 is rejected
Reference Check Tools - Checkster	25.714 <sup>a</sup>	0.002	H0 is rejected
Online Tools for Skills Testing	24.438 <sup>a</sup>	0.004	H0 is rejected
Skill Testing Tools - eSkill and Interview Mocha	15.257 <sup>a</sup>	0.018	H0 is rejected
Programming Challenges - HackerRank	32.014 <sup>a</sup>	0.000	H0 is rejected
Psychometric Tools - Mind tools and Peoplogica	5.760 <sup>a</sup>	0.124	H0 is accepted

The Result Shows that awareness of most of the Selection tools depends on the years of the experience of the recruiter except Learning Tools and Psychometric Tools.

**Chart 6: Analysis on Satisfaction Level of Usage of Online Tools**



From the above graph 75% of the Recruiters are highly satisfied with the online recruitment and Selection Tools that they are using; 10% are averagely and highly satisfied with the online Recruitment and Selection tools that they are using whereas 5% are dissatisfied with the online tools used in the recruitment and selection process.

### **Limitations of the Study**

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- Qualitative factors are likely to change as a result of the recruiter's schedule.
- As the study is linked to human behavior, subjectivity in terms of responses becomes one of the major drawbacks.
- Statistical techniques have specific limitations and will also apply to the study.
- Limited time and cost are the inherent drawbacks of this research.

### **Implications of the Study**

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The present study may be used for technological advances in the Recruitment and Selection process, which may be useful to the society and industry. The study will also contribute to the development of new and effective technologies, algorithms which will be an overall advance in science and technology.

### **Scope of the Study**

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The study can further be extended by finding more online tools and technologies in recruitment and selection process and whether the companies are using it or not. Also research can also be done on the effectiveness and cost benefit analysis of these online tools and technologies over the traditional recruitment and selection method.

### **Conclusion**

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With the advent of technology and post-COVID, it has become more important for businesses to transition to the online Recruitment and Screening process. The study shows that majority of the IT recruiters are aware about most of the Recruitment tools but few are still not aware of some of the Selections tools such as Psychometric Tools, Reference check tools, Applicant Tracking Systems etc.

The Study also reveals that though many Recruiters are aware of majority of the tools but usage of it is still limited to Recruitment tools like LinkedIn and Job Portals and for Selections tools like Skype only. The Recruiters may think of converting the entire Recruitment and Selection process online which may help them in saving their time, money and manpower.

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