



# Study on Effectiveness of Recruitment Tools at Virtusa

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## How to Cite this Article:

G.K.Deepa, (2026). Study on Effectiveness of Recruitment Tools at Virtusa. International Journal of Creative and Open Research in Engineering and Management, <i>02</i>(04). <https://doi.org/10.55041/ijcope.v2i3.284>

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<https://doi.org/10.55041/ijcope.v2i3.284>

## ABSTRACT

The recruitment process has undergone a profound transformation with the proliferation of digital platforms, artificial intelligence-driven tools, and applicant tracking systems. This study investigates the effectiveness of recruitment tools employed at Virtusa, a leading global technology services company. Using a structured survey instrument administered to 150 HR professionals, recruiters, and talent acquisition specialists across Virtusa and comparable technology organizations, this research evaluates critical dimensions including tool effectiveness, ease of use, candidate quality, time-saving capability, and overall satisfaction. The study further examines the adoption of AI-based recruitment tools and their perceived influence on hiring efficiency. Findings reveal that digital job boards such as Naukri and LinkedIn dominate the recruitment landscape, with a mean overall satisfaction score of 3.71 out of 5. Approximately 68.7% of respondents affirmed that AI-based tools significantly enhance hiring efficiency. Key challenges identified include lack of quality profiles, time-consuming processes, and high operational costs. The study concludes with strategic recommendations for optimizing recruitment tool effectiveness in technology-driven organizations.

## INDEX TERMS

Recruitment Tools, Talent Acquisition, AI-based Hiring, Job Boards, HR Technology, Virtusa, Hiring Effectiveness, Digital Recruitment.



## 1. INTRODUCTION

In the contemporary landscape of human resource management, the process of talent acquisition has evolved from traditional paper-based methods to sophisticated, technology-enabled systems. Organizations operating in the information technology sector, in particular, have embraced a wide spectrum of digital recruitment tools to attract, identify, and engage top talent in an increasingly competitive global market. Virtusa Corporation, a multinational information technology services company headquartered in Southborough, Massachusetts, represents an exemplary case of an organization that relies heavily on diverse recruitment mechanisms to sustain its workforce demands.

The effectiveness of recruitment tools is a multidimensional construct encompassing several critical parameters: the accuracy with which tools identify suitable candidates, the speed with which positions are filled, the satisfaction of both recruiters and candidates, the cost-efficiency of the process, and the adaptability of tools to evolving job market dynamics.

Traditional recruitment methods, including walk-in interviews, newspaper advertisements, and employee referral programs, have been progressively supplemented and, in many cases, supplanted by digital platforms such as LinkedIn, Naukri, Foundit (formerly Monster), and internally developed Applicant Tracking Systems (ATS) such as Phenom, Taleo, and Workday.

The emergence of artificial intelligence in recruitment has further disrupted conventional hiring paradigms. AI-powered tools capable of resume parsing, automated candidate screening, predictive analytics, and even video interview assessment have been integrated into the recruitment workflows of leading technology firms. However, the perceived effectiveness of these tools, their usability, and the challenges they present to practitioners remain incompletely understood, particularly in the context of mid-to-large scale IT services organizations such as Virtusa.

This study seeks to address this gap by conducting an empirical investigation into the effectiveness of recruitment tools at Virtusa. Through a structured questionnaire survey administered to 150 respondents comprising HR professionals, talent acquisition specialists, recruiters, and organizational managers, this research systematically evaluates the performance of recruitment tools across five core dimensions: effectiveness, ease of use, candidate quality, time-saving capability, and overall satisfaction. Additionally, the study examines the prevalence and purpose of AI-based recruitment tool adoption and identifies the principal challenges faced by practitioners in the current recruitment technology ecosystem.

## 2. LITERATURE SURVEY

The scholarly discourse on recruitment tool effectiveness has expanded significantly over the past two decades, driven by rapid advancements in human resource technology and digital transformation. Sullivan [1] articulated that the strategic deployment of recruitment technology fundamentally alters the speed and quality of the talent acquisition process, emphasizing that organizations that integrate multiple sourcing platforms achieve measurably superior hiring outcomes compared to those relying on singular channels.

Chapman and Webster [2] conducted a comprehensive examination of technology-based recruitment and selection, concluding that e-recruitment substantially reduces administrative burden while simultaneously broadening the candidate reach of organizations. Their findings corroborated the growing role of job boards and organizational career portals as primary sourcing instruments. In a complementary study, Parry and Tyson [3] identified that organizations leveraging digital recruitment tools reported lower cost-per-hire metrics and improved candidate pipeline quality, though they cautioned that tool effectiveness is contingent upon the quality of job description crafting and profile targeting.

Holm [4] investigated the transformation wrought by e-recruitment on HR work processes, observing that while digital tools enhance operational efficiency, they introduce new challenges pertaining to information overload and the difficulty of distinguishing genuinely qualified applicants from a vast pool of applications. This concern aligns with the challenge of irrelevant candidate profiles, which has been widely reported among practitioners using platforms such as LinkedIn and Naukri.



The integration of artificial intelligence into recruitment has been extensively analyzed by Raghavan et al. [5], who demonstrated that algorithmic screening tools, while accelerating the shortlisting process, can inadvertently introduce biases if the underlying training data reflects historical hiring inequities. Similarly, Tambe et al. [6] emphasized that AI-driven talent analytics hold significant promise for improving predictive accuracy in candidate selection but require robust governance frameworks to ensure fairness and transparency.

Bharadwaj and Yameen [7] examined the adoption of ATS platforms in large IT organizations and found that tools such as Phenom and Taleo significantly improve recruiter productivity by automating routine tasks such as resume parsing, interview scheduling, and candidate communication. Their study highlighted that frequent users of these platforms reported substantially higher satisfaction with the recruitment process compared to occasional users.

Bondarouk and Ruël [8] underscored the importance of user-friendliness in the adoption and sustained utilization of HR technology, arguing that tools that present high learning curves or require extensive technical expertise tend to be underutilized despite their functional sophistication. This finding underscores the importance of ease of use as a critical determinant of recruitment tool effectiveness in organizational settings.

Collectively, the extant literature establishes a strong foundation for empirically investigating recruitment tool effectiveness at an organizational level, while also identifying key constructs—effectiveness, ease of use, candidate quality, time-saving capability, and satisfaction—that form the analytical backbone of the present study.

### 3. PROBLEM STATEMENT

Despite the widespread adoption of digital recruitment tools and AI-based platforms in the technology sector, a comprehensive, empirically grounded understanding of their effectiveness in the specific organizational context of IT services companies such as Virtusa remains limited. Organizations frequently invest substantial financial resources in recruitment technology without a systematic mechanism for evaluating the return on investment in terms of hiring quality, speed, recruiter satisfaction, and candidate conversion rates.

Furthermore, the coexistence of traditional recruitment channels (such as employee referrals and campus drives) with modern digital platforms creates a complex, multi-channel recruitment environment in which the relative effectiveness of individual tools is difficult to assess. Practitioners often lack data-driven insights to guide strategic decisions about which tools to prioritize, optimize, or discontinue.

The rapid proliferation of AI-based recruitment tools introduces additional complexity, as organizations must navigate the trade-offs between automation-driven efficiency and the preservation of human judgment in critical hiring decisions. Questions regarding the actual impact of AI tools on hiring efficiency, candidate quality, and recruiter experience remain insufficiently addressed in the context of Indian IT services organizations.

This study addresses these gaps by systematically evaluating the effectiveness of recruitment tools at Virtusa through the lens of practitioner perceptions, operational performance metrics, and strategic outcomes. The findings are intended to provide actionable insights for HR leadership and technology investment decisions in similar organizational contexts.

### 4. RESEARCH METHODOLOGY

#### 4.1 Research Design

This study adopts a descriptive research design employing a quantitative survey methodology. A structured questionnaire was developed encompassing dimensions of recruitment tool effectiveness, ease of use, candidate quality, time-saving capability, offer acceptance rates, AI tool adoption, and practitioner challenges. The survey instrument was validated through a pilot study with five HR professionals and refined for clarity and construct validity prior to full deployment.



## 4.2 Sample and Data Collection

A purposive sampling technique was employed to target HR professionals, talent acquisition specialists, recruiters, and organizational managers with direct experience in recruitment activities. A total of 150 valid responses were collected from participants affiliated with Virtusa and comparable technology organizations including Accenture, TCS, Wipro, and Infosys. The demographic composition of the sample is presented in Table 4.1.

Demographic Variable	Category	Frequency (%)
Age Group	Below 25	104 (69.3%)
	25 – 35	26 (17.3%)
	36 – 45	19 (12.7%)
Gender	Male	80 (53.3%)
	Female	70 (46.7%)
Experience	Less than 1 year	69 (46.0%)
	1 – 5 years	30 (20.0%)
	5 – 10 years	11 (7.3%)
	More than 10 years	39 (26.0%)

**Table 4.1. Demographic Profile of Respondents (N=150)**

## 4.3 Measurement Dimensions

The primary recruitment tool effectiveness was assessed across five dimensions using a five-point Likert scale (1 = Very Poor to 5 = Excellent): (i) overall effectiveness of the primary recruitment tool, (ii) ease of use, (iii) quality of candidates received, (iv) time-saving capability, and (v) overall satisfaction. Additionally, respondents provided information on time-to-fill positions, candidate shortlisting rates, selection rates, offer acceptance rates, and their perceptions regarding AI-based recruitment tool adoption.



## 5. RESULTS AND DISCUSSION

### 5.1 Recruitment Tool Usage Patterns

The survey findings reveal that digital job boards constitute the dominant recruitment sourcing channels among respondents. Naukri emerged as the most frequently used platform, cited by 43 respondents (28.7%), followed by LinkedIn and Naukri in combination (34 respondents; 22.7%), and LinkedIn alone (22 respondents; 14.7%). Multi-channel approaches combining LinkedIn, Naukri, Employee Referrals, and Recruitment Agencies were employed by 19 respondents (12.7%). Table 5.1 summarizes the distribution of recruitment tool usage.

Recruitment Platform / Tool	Frequency	Percentage (%)
Naukri	43	28.7%
LinkedIn and Naukri	34	22.7%
LinkedIn	22	14.7%
LinkedIn, Naukri, Employee Referrals, Recruitment Agencies	19	12.7%
LinkedIn, Naukri, Employee Referrals	16	10.7%
LinkedIn, Naukri, Recruitment Agencies	8	5.3%
Other (Foundit, LinkedIn Foundit)	8	5.3%
Total	150	100%

**Table 5.1. Distribution of Recruitment Tool Usage (N=150)**

### 5.2 Performance Metrics of Recruitment Tools

The five core performance dimensions of recruitment tools were evaluated using a five-point Likert scale. Table 5.2 presents the mean scores for each dimension across the 150 respondents.

Performance Dimension	Mean Score (/5)	Interpretation
Effectiveness of Primary Recruitment Tool	3.99	Good
Ease of Use	4.03	Good
Quality of Candidates Received	3.81	Good
Time-Saving Capability	3.70	Satisfactory
Overall Satisfaction	3.71	Satisfactory

**Table 5.2. Mean Performance Scores of Recruitment Tools (N=150)**

The results indicate that ease of use ( $M = 4.03$ ) and effectiveness ( $M = 3.99$ ) received the highest mean scores, suggesting that practitioners perceive the primary tools as reasonably user-friendly and functionally effective. The slightly lower scores for time-saving capability ( $M = 3.70$ ) and overall satisfaction ( $M = 3.71$ ) reflect persistent challenges in candidate relevance and process efficiency, as elaborated in subsequent sections.



### 5.3 Time-to-Fill Position Analysis

The time required to fill a position using the primary recruitment tool is a critical operational indicator. As shown in Table 5.3, the majority of respondents (48.0%) reported a time-to-fill of 2–4 weeks, while 34.0% reported filling positions within less than one week. Only 4.0% of respondents experienced a time-to-fill of more than one month, indicating that digital recruitment tools have contributed to significant improvements in hiring velocity relative to traditional methods.

Time-to-Fill	Frequency	Percentage (%)
Less than 1 week	51	34.0%
1 – 2 weeks	20	13.3%
2 – 4 weeks	72	48.0%
More than 1 month	6	4.0%
Total	150	100%

**Table 5.3. Time-to-Fill Position Distribution (N=150)**

### 5.4 Candidate Shortlisting and Selection Rates

Analysis of candidate conversion metrics reveals that 40.0% of respondents reported shortlisting more than 60% of candidates sourced through their primary tool, indicative of strong candidate-job fit alignment for a significant proportion of practitioners. A further 22.7% reported shortlisting rates between 40–60%. With respect to final selection rates, 49.3% of respondents indicated that 25–50% of shortlisted candidates were ultimately selected, while 20.0% reported selection rates exceeding 50%. Offer acceptance rates were categorized as Medium by 55.3% of respondents, High by 30.0%, and Low by 14.7%, reflecting a generally positive candidate response to offers generated through these platforms.

### 5.5 Challenges in Recruitment Tool Usage

Respondents identified five primary challenges encountered in the use of recruitment tools. The distribution of challenges is presented in Table 5.4.

Challenge	Frequency	Percentage (%)
Lack of quality profiles	36	24.0%
Time-consuming process	36	24.0%
Irrelevant candidates	32	21.3%
High cost	28	18.7%
Technical issues	17	11.3%
Total	150	100%

**Table 5.4. Challenges in Recruitment Tool Usage (N=150)**

Lack of quality profiles and time-consuming processes emerged as the most prevalent challenges (24.0% each), underscoring the need for more sophisticated candidate matching algorithms and process automation. Irrelevant candidate profiles (21.3%) represent a significant concern, suggesting that current keyword-based matching mechanisms may be insufficient for identifying candidates with the precise skill profiles demanded by technology roles. High operational costs were identified by 18.7% of respondents, while technical platform issues were reported by 11.3%.



## 5.6 AI-Based Recruitment Tool Adoption

The survey findings reveal a strong positive orientation toward AI-based recruitment tools among practitioners. As detailed in Table 5.5, 68.7% of respondents affirmed that AI-based tools improve hiring efficiency, while 24.7% expressed a conditional or uncertain view. Only 6.7% of respondents indicated that AI tools do not enhance efficiency.

Perception	Frequency	Percentage (%)
Yes – AI tools improve efficiency	103	68.7%
Maybe – Conditional improvement	37	24.7%
No – AI tools do not improve efficiency	10	6.7%
Total	150	100%

**Table 5.5. Perception of AI-Based Recruitment Tool Effectiveness (N=150)**

Among organizations that have adopted AI-based tools, the primary purpose cited was reduction of manual work (47.1%), followed by time savings (23.5%), improvement of candidate quality (17.6%), and enhanced decision-making (11.8%). Specific AI tools mentioned by respondents include Phenom (AI-powered talent experience platform), Beeribot, Microsoft Copilot, CBIE AI Bot for initial screening, Comet, Veriklick AI for video interviews, and Wipro ATS. These tools are primarily deployed for automated candidate screening, resume parsing, chatbot-assisted candidate communication, and AI-driven interview assessment.

## 5.7 Internal Recruitment Tool Analysis

Among respondents representing organizations with established internal recruitment systems, Phenom was identified as the most widely used primary internal tool (25.0%), followed by Naukri (16.7%), Taleo (8.3%), Indeed (16.7%), and ATS systems (8.3%). The primary organizational reasons for selecting these tools include ease of candidate shortlisting (36.4%), time-saving capabilities (18.2%), access to a broad candidate pool (9.1%), and reduction of manual tasks (9.1%). The frequency of internal tool usage was reported as 'Always' by 80.0% of active internal tool users and 'Sometimes' by the remaining 20.0%, indicating strong institutionalization of these platforms within organizational recruitment workflows.

## 6. CONCLUSION

This study presents a comprehensive empirical analysis of the effectiveness of recruitment tools at Virtusa, drawing on survey data from 150 HR professionals, recruiters, and talent acquisition specialists. The findings collectively demonstrate that digital recruitment platforms, particularly Naukri and LinkedIn, constitute the dominant sourcing channels in the technology recruitment ecosystem, with mean effectiveness and ease-of-use scores approaching 4.0 on a five-point scale.

The research establishes that while digital recruitment tools have significantly improved hiring velocity, with 82.0% of respondents achieving position fills within four weeks, persistent challenges related to candidate profile quality, process efficiency, and tool cost continue to constrain the full realization of recruitment technology potential. The challenge of irrelevant candidate profiles, in particular, highlights the limitations of keyword-based candidate matching and underscores the strategic imperative for adopting more sophisticated, skills-based matching algorithms.

The findings regarding AI-based recruitment tools are particularly significant: 68.7% of respondents affirmed that AI tools improve hiring efficiency, with automated screening, time reduction, and candidate quality improvement identified as the primary value drivers. The adoption of AI tools such as Phenom, Veriklick, and CBIE AI Bot signals a progressive shift toward data-driven, automated recruitment workflows in leading technology organizations.



Organizations seeking to optimize their recruitment tool effectiveness are recommended to invest in AI-enhanced candidate matching systems, develop clear evaluation frameworks for recruitment tool performance, prioritize tools that offer strong integration between job boards and ATS platforms, and establish cost-benefit analyses to rationalize tool expenditures. Future research may extend these findings through longitudinal studies tracking recruitment outcomes, comparative cross-industry analyses, and qualitative investigations of recruiter and candidate experience with specific AI tools.

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