

AN EMPIRICAL STUDY ON RESUME SCREENING AND RECRUITMENT EFFECTIVENESS AT ABSERVETECH CONSULTANCY PVT. LTD.

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Abstract—Recruitment is a critical human resource activity because the quality of employees entering an organization influences productivity, service quality and long-term growth. This study examines resume screening and recruitment practices at Abservetech Consultancy Pvt. Ltd., with particular attention to fairness, transparency, standardized screening criteria, job-related qualifications, human resource practices and technology-supported recruitment. A descriptive research design and quantitative approach were adopted. Primary data were collected from 50 respondents comprising HR managers, recruiters, talent acquisition specialists, employees and students connected with recruitment activities. Convenience sampling was used and responses were obtained through a structured five-point Likert-scale questionnaire. The data were analyzed using frequency and percentage analysis, Cronbach's Alpha reliability testing and Chi-Square tests. The recruitment and resume-screening scale showed excellent reliability ($\alpha=0.921$), the HRM practices scale also showed excellent reliability ($\alpha=0.911$), and the resume-screening criteria scale showed acceptable reliability ($\alpha=0.764$). Respondents emphasized transparent recruitment, timely communication, merit-based assessment, unbiased screening and standardized criteria. The Chi-Square tests reported no statistically significant association between gender and perceptions of fair recruitment, or between work experience and perceptions of the importance of relevant experience in resume screening. The study concludes that technology can improve recruitment efficiency, but it should be implemented together with standardized procedures, ethical safeguards and human oversight.

Index Terms—Resume Screening, Recruitment, Applicant Tracking System, Artificial Intelligence, Human Resource Management, Recruitment Effectiveness

I. INTRODUCTION

The Information Technology industry is one of the fastest-growing sectors of the global economy and includes software development, digital services, cloud computing, cybersecurity, artificial intelligence, machine learning, analytics and other technologies. The uploaded project explains that software development has evolved from early machine and assembly languages through structured programming, object-oriented development, web applications, Agile, DevOps, cloud computing and AI-driven systems. Recruitment has consequently become increasingly important because technology organizations require skilled employees in a competitive labour market.

Resume screening is an important early stage of recruitment. Recruiters must process applications efficiently while identifying candidates whose qualifications, technical skills and experience match job requirements. Manual screening can be time-consuming, whereas Applicant Tracking Systems (ATS), semantic matching and AI-supported tools can assist with high-volume screening. At the same time, automated screening creates concerns related to bias, privacy, explainability and the rejection of suitable candidates when systems depend too heavily on keywords.

II. ORGANIZATIONAL CONTEXT AND NEED FOR THE STUDY

According to the project, Abservetech Private Limited was founded in 2015 and is headquartered in Madurai. The organization specializes in web and mobile application

development, clone-script development and digital marketing. It emphasizes innovation, customer satisfaction and scalable technology solutions and is described as serving businesses from startups to larger enterprises.

The company's stated vision is to become a global IT leader by delivering innovative, scalable and customer-centric technology solutions and leveraging technologies such as AI, Blockchain, Cloud Computing and Automation. Its objectives include delivering high-quality software solutions, adopting emerging technologies, promoting digital transformation, developing skilled IT professionals and building long-term global client relationships.

The project identifies several challenges for the organization and the IT industry, including rapid technological change, talent retention, diverse customer requirements, software quality, deadlines and competition. These conditions increase the importance of an efficient recruitment process capable of identifying candidates whose skills match organizational requirements.

The study is needed because recruitment decisions influence organizational performance. An effective resume-screening system can reduce unnecessary processing time, improve candidate-job matching and support consistent selection. However, an inefficient process may lead to delays, inconsistent decisions or rejection of qualified applicants. Studying the existing perceptions of recruiters and employees can therefore provide useful evidence for improving the screening process.

A. Objectives of the Study

- To study the effectiveness of the resume-screening process in recruitment.
- To examine the role of human resource management practices in recruitment effectiveness.
- To identify the importance of job-related qualifications, standardized criteria and relevant experience in resume screening.
- To examine whether selected respondent characteristics are associated with perceptions of recruitment fairness and screening criteria.

B. Scope of the Study

The study focuses on resume screening and recruitment practices at Abservetech Consultancy Pvt. Ltd. It considers respondent perceptions regarding fairness, transparency, communication, job advertisements, qualifications, interviews, HRM practices and resume-screening criteria. The study is intended to support improvements in recruitment effectiveness rather than evaluate every aspect of the organization's overall HR system.

C. Significance

The study is useful to HR managers and recruiters because it identifies areas where screening can be standardized and improved. It is also relevant to organizations adopting ATS and AI-supported recruitment, since the findings highlight the importance of fairness, transparency and human oversight.

III. REVIEW OF LITERATURE

The literature in the project shows a gradual movement from manual recruitment toward digital, ATS-supported and AI-assisted screening. Van Esch and Black [13] reported that AI-driven screening can reduce recruitment time and manual work but emphasized human involvement to prevent discrimination. Parry and Strohmeier [9] highlighted ATS automation and reduced administrative burden while noting transparency and data-quality concerns. Nawaz and Gomes [8] identified faster and more cost-effective e-recruitment while recommending regular updating of screening algorithms.

- Gupta and Sharma [4]: ATS can process large volumes and improve shortlisting, but keyword screening may reject suitable candidates.
- Kaur and Singh [5]: Automation reduces repetitive tasks, but recruiter judgement remains important.
- Mishra and Verma [7]: AI screening can improve evaluation accuracy and reduce screening time; ethical safeguards are necessary.
- Kumar and Reddy [6]: ATS improves recruitment efficiency, resume management and hiring-cycle time.
- Alsharif et al. [1]: AI-supported screening can improve accuracy, reduce recruiter workload and improve candidate experience.
- González-Morales et al. [3]: AI, ML and NLP increasingly support automation, decision-making and candidate experience.
- Rajwar and Malik [10]: AI improves efficiency and candidate-job matching but raises bias, privacy and transparency concerns.

- Santiago-Torner [11]: AI can improve efficiency, but fairness, explainability and organizational acceptance remain important.
- Wilson et al. [14]: Recruiters may follow AI recommendations that reinforce bias; human control is needed.
- Xu et al. [15]: LLM-based resume evaluation can reduce recruiter workload while protecting privacy.
- Fofanah [2]: Semantic AI screening may be more effective than keyword filtering and can reduce false rejection of qualified candidates.

Research Gap

The reviewed studies demonstrate the benefits of digital and AI-supported recruitment, but they also identify persistent concerns regarding fairness, transparency, bias, privacy and human control. The present study addresses this practical gap by examining respondent perceptions of resume-screening and recruitment practices within a specific organizational context.

IV. RESEARCH METHODOLOGY

A. Research Design

The study adopts a descriptive research design to examine existing resume-screening and recruitment practices without manipulating variables. A quantitative approach was used to measure respondent opinions regarding recruitment efficiency, shortlisting criteria, HRM practices and screening challenges.

B. Population and Sample

The study consists of 50 respondents, including HR managers, recruiters, talent acquisition specialists and employees connected with recruitment and resume screening. The sample also includes respondents from different employment and experience categories.

C. Sampling Technique

Convenience sampling, a non-probability method based on accessibility and willingness to participate, was used. This technique enabled the researcher to obtain responses within the available study period but limits generalization to the wider population.

D. Data Collection Instrument

A structured questionnaire was used. It contained demographic questions and statements relating to recruitment and resume screening, HRM practices and resume-screening criteria. A five-point Likert scale was used for opinion-based items.

E. Data Collection

Primary data were collected through Google Forms and direct interaction with respondents involved in recruitment or related activities. The project states the research period as July 2026 to November 2026.

Component	Description
Research design	Descriptive
Approach	Quantitative
Sample size	50 respondents
Sampling	Convenience sampling
Instrument	Structured questionnaire
Measurement	Five-point Likert scale
Data collection	Google Forms and direct interaction
Statistical tools	Frequency, percentage, Cronbach's Alpha, Chi-Square

Study focus	Resume screening and recruitment effectiveness
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F. Limitations

The study is confined to one organization, uses a relatively small sample, depends on respondent honesty, covers a limited study period and does not examine every component of recruitment and selection. Organizational confidentiality also restricted some information.

V. RESPONDENT PROFILE

Variable	Category	Frequency	Percent
Gender	Male	22	44.0
	Female	28	56.0
Designation	HR Recruiter	4	8.0
	HR Executive	10	20.0
	Senior Recruiter	5	10.0
	HR Manager	13	26.0
	Other	9	18.0
Department	Student	9	18.0
	Recruitment	9	18.0
	Talent Acquisition	13	26.0
	HR Operations	12	24.0
	Other	16	32.0
Experience	Less than 1 year	13	26.0
	1–3 years	14	28.0
	4–6 years	19	38.0
	More than 6 years	4	8.0
Employment	Full-time	26	52.0
	Part-time	11	22.0
	Contract	7	14.0
	Internship	6	12.0

Female respondents formed 56% of the sample and male respondents 44%. HR Managers were the largest designation group at 26%. Talent Acquisition represented 26% of departments, while the Other department category represented 32%. The largest experience group was 4–6 years at 38%, followed by 1–3 years at 28% and less than one year at 26%. Full-time employees accounted for 52% of the sample.

The varied respondent profile provides perspectives from different organizational roles and experience levels. The presence of HR Managers, HR Executives, recruiters, students and other respondents makes the findings useful for understanding general perceptions of recruitment and resume screening.

The demographic analysis establishes the background for interpreting the subsequent reliability, descriptive and hypothesis-testing results. The results that follow are therefore considered as respondent perceptions rather than direct measures of organizational performance.

VI. RELIABILITY AND DESCRIPTIVE ANALYSIS

Scale	Cronbach's Alpha	Items	Interpretation
Recruitment & resume-screening practices	0.921	10	Excellent reliability
HRM practices	0.911	10	Excellent reliability

Resume-screening criteria	0.764	5	Acceptable reliability
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The recruitment and resume-screening scale produced Cronbach's Alpha of 0.921 based on 10 items and 50 valid cases. This indicates excellent internal consistency among the items measuring recruitment and screening perceptions.

- Fair and transparent recruitment process — Mean 2.34
- Clear job advertisements — Mean 2.16
- Qualifications and skills rather than personal references — Mean 2.00
- Unbiased and equal interviews — Mean 2.18
- Timely recruitment updates — Mean 2.32
- Recruitment completed within reasonable time — Mean 1.96
- Well-planned recruitment helps hire suitable employees — Mean 2.26
- Salary paid on time — Mean 2.24
- Incentives and bonuses increase motivation — Mean 1.92
- Clear salary structure — Mean 2.38

The highest mean was recorded for understanding the salary structure (2.38), followed by fair and transparent recruitment (2.34) and timely updates about recruitment results (2.32). These results indicate that clarity and communication are important components of the recruitment experience.

The HRM practices scale recorded $\alpha=0.911$, indicating excellent reliability. Performance-based rewards recorded a mean of 2.36, followed by good communication between employees and management (2.34) and employee recognition (2.30). Learning and career development, employee engagement and compensation review also received positive responses.

Overall, the reliability results demonstrate that the questionnaire items were sufficiently consistent for the study. The descriptive results suggest that recruitment effectiveness is connected to broader HRM practices such as communication, rewards, recognition and development.

VII. RESUME-SCREENING RESULTS

Resume-screening criterion	Mean	Std. Deviation	Valid N
Job-related qualifications	2.26	0.964	42
Well-defined screening process	2.31	0.950	42
Fair and free from personal bias	2.36	1.122	42
Standardized screening criteria	2.43	0.859	42
Relevant work experience	2.17	1.146	42

The resume-screening criteria scale produced $\alpha=0.764$ with 42 valid cases, indicating acceptable internal consistency. Standardized screening criteria recorded the highest mean (2.43), followed by fair and unbiased screening (2.36) and a well-defined screening process (2.31). Job-related qualifications recorded a mean of 2.26, while relevant work experience recorded 2.17.

The results indicate that respondents particularly value consistency and fairness when resumes are screened. Standardization can reduce differences between individual

recruiters and make screening decisions easier to review. Fairness is also important because recruitment decisions can directly affect equal employment opportunity and candidate trust.

A. Interpretation of Job-Related Qualifications

The mean for job-related qualifications indicates that candidates should be assessed against requirements relevant to the position. This supports competency-based recruitment and reduces the possibility that unrelated personal factors influence shortlisting.

B. Interpretation of Work Experience

Relevant work experience was viewed as an important criterion, although its mean was lower than standardized criteria and unbiased screening. This suggests that experience should be considered together with qualifications, skills and job requirements rather than used as the only basis for selection.

C. Implication

The findings support a structured screening model using clearly defined criteria, job-related qualifications, relevant experience and fairness checks. Such a model can improve consistency while allowing recruiters to exercise professional judgement.

VIII. HYPOTHESIS TESTING AND DISCUSSION

A. Chi-Square Test 1: Gender and Fair Recruitment

Pearson Chi-Square = 1.417, $df = 4$, $p = 0.841$. Since $p > 0.05$, the study reports no statistically significant association between gender and perceptions of a fair and transparent recruitment process. Male and female respondents therefore showed broadly similar views. The project notes that 40% of cells had expected frequencies below 5, so the result should be interpreted cautiously.

B. Chi-Square Test 2: Work Experience and Relevant Experience in Screening

Pearson Chi-Square = 8.152, $df = 12$, $p = 0.773$. Since $p > 0.05$, the study reports no statistically significant association between years of work experience and opinions regarding the importance of relevant work experience in resume screening. The project notes that 80% of cells had expected frequencies below 5, which also requires cautious interpretation.

Test	Chi-Square	df	p-value / Decision
Gender $\times$ fair recruitment	1.417	4	0.841 / Not significant
Experience $\times$ relevant experience	8.152	12	0.773 / Not significant

The results support the importance of objective recruitment procedures. The absence of significant associations suggests that the examined perceptions of fairness and relevant experience were not strongly differentiated by the respondent characteristics tested. However, because of the small sample and low expected cell frequencies, these findings should not be generalized beyond the study context without further research.

The literature reviewed in the project similarly indicates that technology can improve recruitment efficiency while creating risks of bias, privacy problems and limited explainability. The present findings reinforce the need for transparent criteria and human oversight when ATS or AI tools are used.

Recruiters should therefore use technology as a decision-support mechanism rather than as an unquestioned decision-maker. Automated recommendations should be reviewed, unusual cases should be examined manually and screening criteria should be periodically audited for consistency and fairness.

IX. FINDINGS, RECOMMENDATIONS AND CONCLUSION

A. Major Findings

- 56% of respondents were female and 44% were male; HR Managers formed the largest designation group at 26%.
- The largest experience category was 4–6 years (38%), while 52% of respondents were full-time employees.
- The recruitment and resume-screening scale showed excellent reliability ($\alpha = 0.921$).
- The HRM practices scale showed excellent reliability ($\alpha = 0.911$).
- The resume-screening criteria scale showed acceptable reliability ($\alpha = 0.764$).
- Fair and transparent recruitment and timely communication were viewed positively.
- Respondents supported assessment based on qualifications and skills rather than personal references.
- Standardized screening criteria received the highest mean among the screening criteria.
- No significant association was found between gender and perceptions of fair recruitment.
- No significant association was found between work experience and perceptions of the importance of relevant work experience.

B. Recommendations

- Maintain transparent and ethical recruitment practices and communicate recruitment stages clearly.
- Standardize resume-screening criteria for each job role and document the basis for shortlisting decisions.
- Use ATS and AI tools to improve speed and consistency, but retain human review and accountability.
- Develop clear job descriptions that specify qualifications, skills, responsibilities and experience.
- Train recruiters in structured interviewing, diversity recruitment and unconscious-bias awareness.
- Use competency-based interviews and skill assessments alongside resume screening.
- Provide appropriate candidate communication and feedback where feasible.
- Review recruitment policies and referral practices to strengthen equal opportunity.
- Maintain updated talent databases and conduct periodic audits of screening outcomes.
- Strengthen employee recognition, communication, career development and performance-management practices after recruitment.

C. Conclusion

The study demonstrates that effective resume screening is closely associated with fairness, transparency, standardization and job-related evaluation. Respondents value objective

screening based on qualifications and competencies. The reliability results support the internal consistency of the measurement scales, while the Chi-Square tests indicate no significant association for the two demographic relationships examined. Overall, Abservetech can strengthen recruitment effectiveness by combining technology-supported screening with standardized procedures, equal opportunity, ethical safeguards and human judgement.

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