

Role of AI-Based Recruitment Tools in Enhancing Hiring Efficiency and Candidate Experience: A Primary Data-Based Study

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Abstract

The rapid advancement of artificial intelligence (AI) has significantly transformed human resource management practices, particularly in the recruitment and selection process. Organizations are increasingly adopting AI-based recruitment tools to streamline hiring procedures, reduce time and cost, and improve decision-making efficiency. In addition, these technologies are reshaping candidates' experiences by enabling faster communication, personalized interactions, and transparent recruitment processes.

The research was aimed to identify the role of AI based recruitment tools in enhancing hiring efficiency and candidate experience. The research was done in New Delhi and all the companies using AI driven recruitment tools were considered as population of study. By using the purposive sampling method, a sample of 127 HR professionals was included in the study. The respondents were contacted personally and data was collected through survey method with the help of enumerators. The data was analyzed by using one sample t-test and chi-square test. The results revealed that majority of HR professionals were familiar with AI based recruitment tools and they generally used these tools for candidates sourcing, screening and communicating with candidates. The age and experience of HR professionals have significant impact on their awareness about AI based recruitment tools. The hypothesis testing concluded the significant impact of AI based recruitment tools in enhancing hiring efficiency and candidate experience. Overall HR professionals were satisfied with the performance of AI based recruitment tools.

Key Words: AI based recruitment tools, Hiring efficiency, Applicant tracking system, AI assessment tools

Introduction

Artificial intelligence (AI) is an increasingly utilized tool in the area of human resource management, significantly revolutionizing conventional recruiting processes over the recent years. Numerous organizations are progressively integrating AI-enabled recruitment tools

to carry out some tasks involved in hiring processes such as scanning CVs and sorting them, recruiting candidates, scheduling of interviews and providing an initial assessment of applicants. These tools offer the advantage of handling an overwhelming volume of applications in a more convenient and work-efficient manner with a less labor-intensive effort and work pressure.

AI-enabled recruitment systems employs some cutting edge technologies such as machine learning, natural language processing and data analysis for better identification of capable employees in an organization with higher accuracy and speed. These sophisticated tools are employed to analyze candidate profile, eligibility, experience and background thereby helping recruiters determine the most appropriate candidates to be short listed for final selection and decision making which drastically cuts down the recruiting time. Consequently, organizations are able to make quick decisions thereby increasing efficiency, reducing costs and diverting more effort into strategic HR activities.

Apart from enhancing work efficiency within organizations, the benefits of AI-enabled recruitment tools extend to improved experience for candidates as well. Communication tools such as automatic responses, AI chats, instant tracing of application forms offer prompt communication, appropriate feedback to candidates, leading to greater job satisfaction, which helps the candidates gain a better image of the organization. However, it is imperative that in addition to the increasing implementation of AI-hiring systems in recruitment, an examination into the performance enhancement brought about by such tools and effect on candidates' experience is considered practically as well. Gaining the perspective of employees and candidates towards such technologies may help shed some light on its efficacy and reception. This study, therefore, tries to analyze the contribution of AI-recruitment tools to job efficiency enhancement and candidate experience using primary data.

Review of Literature

Agbasiere and Nze-Igwe's (2025) study looks at the idea of algorithmic fairness in AI-driven hiring systems and concentrates on creating hiring tools that can identify and

reduce biases in candidate selection. The authors point out that unconscious human biases are frequently reflected in traditional hiring procedures, and that these biases may also be mirrored in badly constructed AI systems. The study suggests frameworks for integrating bias-detection techniques and fairness metrics into recruitment algorithms. The study shows that AI tools can facilitate a more objective assessment of candidates based on skills and competencies rather than demographic characteristics by incorporating ethical AI design principles. The results imply that thoughtfully crafted AI-powered hiring platforms can enhance the transparency and dependability of hiring decisions while fostering diversity and inclusivity.

The strategic role of artificial intelligence in contemporary human resource management in the digital age is examined by Prasetyo (2025). The study highlights that by automating standard HR processes like hiring screening, performance tracking, and employee engagement analysis, AI-based HR strategies can greatly improve employee experience and organizational productivity. According to the research, AI tools offer data-driven insights that help HR managers improve talent management procedures and make more accurate workforce decisions. The author also emphasizes how businesses using AI-enabled HR systems benefit from better communication, quicker decision-making, and more individualized employee support systems. The study's overall conclusion is that companies looking to gain a competitive edge and improve operational efficiency in the digital workplace must incorporate AI into their HR strategies.

Naseer et al. (2025) look into the use of AI in hiring and selection procedures, with a special emphasis on striking a balance between fairness and efficiency. The study explains how AI technologies reduce time and administrative expenses by streamlining recruitment tasks like resume screening, candidate ranking, and interview scheduling. The authors do, however, warn that depending too much on automated systems could lead to moral dilemmas, such as algorithmic bias and opaque decision-making. According to the study, companies should use a hybrid hiring strategy in which human oversight guarantees equity and moral responsibility while AI assists in decision-making. The results highlight how crucial it is to create ethical AI

frameworks in order to optimize productivity and protect fair hiring procedures..

Yadav et al. (2025) examine how AI-powered hiring systems can boost candidate satisfaction and hiring effectiveness in contemporary businesses. The study emphasizes how AI tools like chatbots, automated resume screening, and predictive analytics help businesses process a lot of applications fast and accurately. Through automated responses and real-time updates, these tools also enhance communication with applicants, improving the candidate experience overall. The authors point out that through data-driven assessment of candidates' qualifications and skills, AI-driven recruitment not only shortens the hiring process but also improves talent matching. According to the study's findings, hiring procedures are made more efficient by AI-enabled recruitment systems, which also increase applicant and employer satisfaction.

Benabou, Touhami, and Demraoui (2024) Benabou, Touhami and Demraoui did a study in 2024 about how artificial intelligence's changing the way we manage people at work. They found out that artificial intelligence is changing the way we do things like hiring, training and evaluating employees. The people who wrote the study say that artificial intelligence helps companies look at a lot of data to figure out what is going on with their workers predict how well they will do and make decisions.. They also talk about some problems like keeping people's private information safe and making sure artificial intelligence does not take away jobs from people who work in human resources. The study says that artificial intelligence will change the way we do things in resources but we need to make sure it works well with people and that we have good rules in place.

Dilusha et al. (2024) did a study about making a computer program that uses intelligence to help hire people. They made a computer program that can talk to people who want to work for a company and figure out if they are a fit. The program can look at lots of information about the people who want to work and pick the ones. This makes the hiring process faster and easier for the people who do the hiring. The people who did the study say that using intelligence to hire people is a good idea because it makes the process more efficient and fair. They think that artificial intelligence can

help companies find the best people to work for them.

Ledbetter (2024) did a study about how artificial intelligence can help companies pick the people to hire. The study looked at how artificial intelligence can help make the hiring process fair and good for the company. Ledbetter found out that artificial intelligence can look at information about the people who want to work and pick the ones without being biased. This can help companies have a diverse group of workers and make better hiring decisions.. The study also says that companies need to be careful when they use artificial intelligence to hire people because it can be unfair if it is not used correctly. The study says that if companies use intelligence in a responsible way it can help them make better hiring decisions and be more fair. Artificial intelligence can be very helpful when it comes to hiring people and companies should consider using it to find the workers and that is what artificial intelligence is all, about helping companies find the best people to work for them using artificial intelligence.

O'Brien (2024) critically analyzes the drawbacks and hazards of AI-based hiring tools, especially when hiring decisions are made by machines. Concerns about algorithmic bias, a lack of accountability, and possible discrimination resulting from automated decision-making systems are highlighted in the study. According to the author, hiring outcomes may be inadvertently impacted by AI systems' heavy reliance on historical data, which may contain embedded biases. The study also raises concerns about legal responsibility and transparency when AI algorithms rank or reject applicants. The study comes to the conclusion that, even though AI can improve hiring efficiency, companies still need to maintain human oversight and enforce stringent regulations to guarantee ethics and fairness.

Divakar (2023) provides an in-depth examination of artificial intelligence applications in talent recruitment which shows its modern hiring processes. The research demonstrates that organizations can use AI technologies which include machine learning and data analytics and automated screening systems to find suitable candidates at a faster pace. The research indicates that AI technology enables recruiters to process applicant data at high speeds which results in shorter recruitment periods and better

hiring decisions. The author demonstrates how AI systems use predictive hiring to assess candidate potential through their historical data analysis. The study establishes AI as a vital instrument for contemporary talent acquisition while organizations need to resolve data quality problems and ethical issues.

Horodyski (2023) investigates recruiters' perceptions of AI-based tools which recruiters use to conduct their hiring procedures. The study focuses on understanding how HR professionals view the effectiveness, reliability, and usability of AI technologies in candidate selection. The results show that recruiters understand how AI helps them work more efficiently while reducing their administrative duties and enabling them to make choices based on data. The research found that some recruiters express doubt about using automated systems because they fear losing human judgment ability and they suspect algorithms might create biased outcomes. The study shows that AI tools have gained acceptance in recruitment yet organizations need to balance their technological solutions with human expertise for successful implementation.

The Artificial Intelligence Recruitment Model (AIRM) which Aleisa, Beloff and White (2023) created serves as an artificial intelligence recruiting framework which specifically applies to the Saudi Arabian labor market. The study focuses on integrating AI technologies into recruitment processes to address challenges such as skill mismatch, inefficient screening procedures, and lack of transparency in hiring decisions. The model uses machine learning algorithms together with automated evaluation systems to assess candidate competencies against job requirements which enables more precise matching. The findings demonstrate that the AIRM framework boosts recruitment efficiency while improving candidate-job matching and facilitating strategic workforce planning. The study shows that AI-driven recruitment models modernize labor markets while they help national workforce development efforts.

Albassam (2023) provides an analytical review of the growing role of artificial intelligence in recruitment practices across organizations. The research investigates various AI recruitment methods which include automated resume screening and predictive analytics and chatbots and

candidate assessment tools. The author highlights that these technologies enable organizations to streamline hiring processes, reduce recruitment time, and enhance decision accuracy through data-driven insights. The review also discusses challenges associated with AI adoption, including ethical concerns, algorithmic bias, and issues related to data privacy. The study shows that AI technology enhances recruitment processes but organizations need to establish responsible AI governance systems while keeping human involvement in decision-making processes to maintain fair and transparent hiring practices.

Sridevi & Suganthi (2022) carried out a study focusing on how AI is used in job-person suitability prediction, also referred to as job-person fit measurement and prediction. In the study, an AI based system that uses machine learning and data analytics tools to find the job description and candidate qualification and ability correlation, predicting candidate fit within jobs based on analyzing candidates' skills and experiences within relevant criteria of a job. Based on how the ML and data analytics system finds job person suitability it is capable of predicting the fit of candidates more accurately than most current HR practices. Studies also prove how predicting job-person suitability models with AI can help reduce errors made during the hiring process, enhance recruitment with better talent selection, and aid organizations in finding candidates with excellent job fit. All in all it is believed how systems utilizing AI can be a boost for the overall effectiveness of hiring.

Cavaliere et al. (2021) investigated the impact of artificial intelligence systems and e-recruitment tools on human resource effectiveness in an educational environment such as high schools. They analyzed how these digital recruitment platforms used AI tools to aid HR in applicant data management, automated screening of applications, and communication with applicants. They discovered that these tools and system contributed to more effective use of resources within organizations by reducing the burden of paperwork on HR staff and enabling decisions about candidates to be made more quickly. Also, it was found how these recruitment systems provided for a more effective and reliable recruitment process.

Pathak & Solanki (2021) investigated how AI and the

internet of things were able to combine and help with the development of human resources. They explained how new technologies allowed organizations to effectively gather and process employee data in order to gain accurate and detailed insights into how HR should be proceeding with decision making regarding employees. Using the ML and data analytics of AI this could be done in order to determine employee performance and future needs for training in a more efficient way than traditional methods. They also noted that by utilizing IoT devices within a larger AI systems it would be possible to create intelligent environments for human resources where performance, engagement, and other variables can be assessed on an ongoing basis to make hr decisions in real-time.

Mishra and Li (2020) conducted a study about how AI has contributed to studies in genetics involving Alzheimer's disease. In their study they explain how AI systems can be used to interpret complex genetic data in order to gain valuable insights into studies being conducted. This was achieved through the ML and data analytics of the computer system. This type of system is used to make accurate predictions as to whether someone is likely to have Alzheimer's disease and if so how to proceed in treatment and observation of the disease, as well as a broad range of other potential data interpretation in this field of study although the subject matter was the study of genetics rather than how ML impacts recruitment practices.

Himanen et al. (2019) suggested that there is growing amount of data-driven materials science and artificial intelligence can fasten up scientific exploration. They indicate that machine learning algorithms may process large amount of material properties and find new materials with valuable attributes. Through the artificial intelligence approaches, we can forecast material properties, save the cost of experiments and time of research. But data quality and interpretability of the model, and necessity of interdisciplinary cooperation is the challenge for them. They also conclude that application of AI into the traditional science may transform materials science, and promote the innovation in industries.

Bates et al. (2014) examined the value of big data analytics in health care for identifying and managing high-risk and high-cost patients. The study proves that through advanced

data analytics and artificial intelligence methods, health care systems could process huge amount of patient data to predict their health risks, to provide preventive services for them. Using predictive models and data mining approaches, care providers may achieve better patient outcomes and cost savings. It emphasizes the integration of big data technologies with care management to achieve accurate clinical decisions. It concludes that AI data-driven health care services can indeed improve the patient's experience and healthcare efficiency.

Research Gap

Although there are increasing research on human resource information systems (HRIS) and Artificial Intelligence (AI), the majority of the studies focused on the functionality and the expected benefits of the AI based recruitment system instead of the current state of adoption and actual impact on HR professional. Many of the studies discussed automation, predictive analysis, and algorithmic screening on the recruitment process; nevertheless, lack of empirical studies shows the level of awareness and how many AI based recruitment tools are adopted by HR professionals and recruiters on real workplace. Beside this, there are insufficient investigations on how AI based recruitment tools affect crucial recruitment performance such as efficiency of hiring, candidate experience and user satisfaction. The absence of a comprehensive study simultaneously assessing both awareness and usage of AI based recruitment tools, while taking into account operational performance and users satisfaction is a considerable research gap. Thus, the current research aims to examine awareness and usage of AI based recruitment tools among HR professional and how it impact on the efficiency of hiring, candidate experience and user satisfaction.

Objectives

1. To assess the level of awareness and extent of usage of AI-based recruitment tools among HR professionals and recruiters.
2. To evaluate the impact of AI-based recruitment tools on hiring efficiency.
3. To analyze the effect of AI-based recruitment tools on candidate experience.

4. To study the respondents' satisfaction with AI-based recruitment tools

Hypotheses

1. Employees' familiarity with AI-based recruitment tools is indifferent with respect to their age and recruitment experience
2. There is no significant impact of AI-based recruitment tools on hiring efficiency.
3. There is no significant effect of AI-based recruitment tools on candidate experience.
4. Employees' satisfaction with AI-based recruitment tools is indifferent with respect to their frequency of using these tools.

Research Methodology

Research Design: Descriptive research design was used to serve the objectives of research

Sampling: The population of the study consists of all the companies of New Delhi using AI driven recruitment tools were considered as population of study. By using the purposive sampling method a sample of 127 HR professionals was included in the study.

Data Collection Tool: The respondents were contacted personally and data was collected through survey method with the help of enumerators. The questionnaire was divided into following sub-sections:-

- Demographic and Job profile of respondents
- Awareness and Usage of AI-Based Recruitment Tools
- Impact of AI-based recruitment tools on hiring efficiency
- Effect of AI-based recruitment tools on candidate experience
- Satisfaction with AI-based recruitment tools

Data Analysis Tool: The data has been analyzed in SPSS 25.0. For interpretation percentage analysis, mean, one sample t-test and chi-square test has been used.

Analysis of Data

Demographic and Job Profile of Respondents

The demographic and job profile of selected sample respondents is shown in table 1

- Age of Respondents: As per age respondents were grouped into five categories. As per results 4.72% respondents were of below 25 years age, 16.54% HR professionals were aged between 25 to 35 years, 27.56% respondents were in the age category of 36 to 45 years, 31.50% respondents were aged between 46 to 55 years and 19.69% respondents were of above 55 years age.
- Education Level of Respondents: In the sample 16.54% respondents were graduate, 40.94% respondents were post graduate, 29.13% respondents were having professional degree and 13.39% respondents were having some other qualification.
- Current role of Respondents: As per data shown in table 1, majority of respondents (36.22%) were working at the post of HR Asst Manager followed by HR manager (29.13%), HR executive (28.35%) and HOD HR (6.30%).
- Years of Experience of Recruitment: As per results 9.45% respondents were having the recruitment experience of less than 2 years, 29.92% respondents were having the recruitment experience of 2 to 5 years, 37.80% respondents were having recruitment experience of 6 to 10 years and 22.83% respondents were having the experience of more than 10 years.

Table 1: Demographic and Job Profile of Respondents

Age	N	Percentage
Below 25 Years	6	4.72
25 to 35 Years	21	16.54
36 to 45 Years	35	27.56
46 to 55 Years	40	31.50
Above 55 Years	25	19.69
Total	127	100

Education Level	N	Percentage
Graduate	21	16.54
Post graduate	52	40.94
Professional degree	37	29.13
Other	17	13.39
Total	127	100
Current Role	N	Percentage
HR Executive	36	28.35
HR Asst Manager	46	36.22
HR Manager	37	29.13
HOD HR	8	6.30
Total	127	100
Year of Experience in Recruitment	N	Percentage
Less than 2 Years	12	9.45
2 to 5 Years	38	29.92
6 to 10 Years	48	37.80
More than 10 Years	29	22.83
Total	127	100

Awareness and Usage of AI-Based Recruitment Tools

Table 2 is depicting the Awareness and Usage of AI-Based Recruitment Tools by HR professionals.

Familiarity with AI-based recruitment tools: It was observed that 24.41% HR professionals were extremely aware of AI based recruitment tools while 31.50% respondents were very familiar with AI based recruitment tools. 29.13% respondents were moderately aware and 14.96% respondents were slightly aware about AI based recruitment tools.

Organizations' experience of using AI-based recruitment tools: Majority of respondents (44.88%) indicated that their organizations were using AI based recruitment tools from last 4 to 6 years while companies of 33.07% HR professionals were using AI based recruitment tools from last 1 to 3 years.

Frequency of using AI-based recruitment tools: Around 1/3rd of the HR professionals (31.50%) indicated the often use of AI based recruitment tools while 40.94% respondents sometimes use AI based recruitment tools.

Type of AI-based recruitment tools used: Respondents were asked that what type of AI based recruitment tools are being used in their organizations and as a result it was observed that mostly companies were using AI-powered resume screening software (61.42%), Video interview and AI assessment tools (54.33%) and Chatbots for candidate interaction (48.82%).

Recruitment activities for which AI-based recruitment tools are used: Further respondents were asked to list out all the activities for which their companies were using AI based recruitment tools. It was found that majority of companies were using AI based recruitment tools for Candidate sourcing (72.44%), Resume screening and short listing (61.42%) and Candidate communication through chatbots and emails (55.12%).

Stages at which AI-based recruitment tools are used: Respondents highlighted that majority of them (40.94%) were using AI based recruitment tools for resume screening followed by candidate assessment (24.41%) and interview scheduling (20.47%).

Table 2: Awareness and Usage of AI-Based Recruitment Tools

Specify your familiarity with AI-based recruitment tools		
Response	N	Percentage
Extremely familiar	31	24.41
Very familiar	40	31.50
Moderately familiar	37	29.13
Slightly familiar	19	14.96
Total	127	100

How long has your organization been using AI-based recruitment tools?		
Response	N	Percentage
Less than 1 Year	11	8.66
1 to 3 Years	42	33.07
4 to 6 Years	57	44.88
More than 6 Years	17	13.39
Total	127	100
How frequently do you use AI-based tools during recruitment activities?		
Response	N	Percentage
Rarely	15	11.81
Sometimes	52	40.94
Often	40	31.50
Always	20	15.75
Total	127	100
What type of AI-based recruitment tools are used in your organization?		
Response	N	Percentage
Applicant Tracking System (ATS) with AI features	49	38.58
AI-powered resume screening software	78	61.42
Chatbots for candidate interaction	62	48.82
Video interview and AI assessment tools	69	54.33
For which recruitment activities are AI-based tools primarily used in your organization?		
Response	N	Percentage
Resume screening and short listing	78	61.42
Candidate sourcing	92	72.44
Interview scheduling	45	35.43
Candidate assessment/interviewing	59	46.46
Candidate communication (chatbots/emails)	70	55.12
At which stage of the recruitment process is AI used the most?		
Response	N	Percentage
Job posting and candidate sourcing	16	12.60
Resume screening	52	40.94
Interview scheduling	26	20.47
Candidate assessment	31	24.41
Final hiring decision	2	1.57
Total	127	100

To check the difference in employees' familiarity of AI based recruitment tools with respect to their age and recruitment experience following hypothesis has been taken:-

H₀1: Employees' familiarity with AI-based recruitment tools is indifferent with respect to their age and recruitment experience

H_a1: Employees' familiarity with AI-based recruitment

tools is significantly different with respect to their age and recruitment experience.

To test this hypothesis chi-square test was used and results are presented in table 3 and 4. The value of both the chi-square statistics are significant so it can be inferred that employees' familiarity with AI-based recruitment tools is significantly different with respect to their age and recruitment experience

Table 3: Chi-Square test result to measure difference in employees' familiarity with AI-based recruitment with respect to their age

Age	Familiarity with AI-based recruitment tools					Chi - Statistic	p-value	Result
	Extremely familiar	Very familiar	Moderately familiar	Slightly familiar	Total			
Below 25 Years	2	2	1	1	6	23.98	0.000	Significant
25 to 35 Years	9	5	4	3	21			
36 to 45 Years	11	12	7	5	35			
46 to 55 Years	7	15	14	4	40			
Above 55 Years	2	6	11	6	25			
Total	31	40	37	19	127			

Level of Significance=5%

Table 4: Chi-Square test result to measure difference in employees' familiarity with AI-based recruitment with respect to their recruitment experience

Recruitment Experience	Familiarity with AI-based recruitment tools					Chi - Statistic	p-value	Result
	Extremely familiar	Very familiar	Moderately familiar	Slightly familiar	Total			
Less than 2 Years	2	2	3	5	12	20.77	0.000	Significant
2 to 5 Years	12	10	10	6	38			
6 to 10 Years	6	22	17	3	48			
More than 10 Years	11	6	7	5	29			
Total	31	40	37	19	127			

Level of Significance=5%

Impact of AI-based recruitment tools on hiring efficiency

Table 5 is showing the employees' perception regarding impact of AI based recruitment tools on hiring efficiency. According to respondents the AI has reduced manual workload of HR professionals (Mean=4.13) because these

softwares are capable of handling large volumes of job applications efficiently (Mean=4.01) as well as can reduce the overall time-to-hire (Mean=3.92). Respondents indicated that AI tools have improved accuracy of candidate short listing (Mean=3.87), enabled faster recruitment decision making (Mean=3.62) and reduced hiring costs (Mean=3.43).

Table 5: Impact of AI-based recruitment tools on hiring efficiency

Impact of AI-based recruitment tools on hiring efficiency	Mean	S.D.	C.V.	Agreement Level
AI-based recruitment tools help in reducing hiring costs.	3.43	1.05	0.31	Agree
AI-based recruitment tools reduce the overall time-to-hire.	3.92	1.12	0.29	Agree
AI helps in handling large volumes of job applications efficiently.	4.01	0.98	0.24	Agree
AI tools improve the accuracy of candidate short listing.	3.87	1.06	0.27	Agree
AI reduces manual workload for HR professionals.	4.13	0.88	0.21	Agree
AI enables faster decision-making in recruitment.	3.62	1.08	0.30	Agree

Overall it was observed that 90.55% HR professionals indicated the positive impact of AI based recruitment tools on hiring efficiency.

Table 6: Overall Impact of AI-based recruitment tools on hiring efficiency

Overall Impact	N	Percentage
Low	12	9.45
High	115	90.55
Total	127	100

To check the significance of impact of AI based recruitment tools on hiring efficiency following hypothesis has been taken:-

H₀2: There is no significant impact of AI-based recruitment tools on hiring efficiency.

H_a2: There is a significant impact of AI-based recruitment tools on hiring efficiency.

The one sample t-test was applied against the theoretical mean 18, for testing of above hypothesis. The computed mean (22.86) is higher than theoretical mean along with the significant value of t-statistic so it can be concluded that there is a significant impact of AI-based recruitment tools on hiring efficiency.

Table 7: One Sample t-test result to measure significance of Impact of AI-based recruitment tools on hiring efficiency

Variable	Observed Mean	Test Value = 18			Result
		t-value	degree of freedom	p-value	
Impact of AI-based recruitment tools on hiring efficiency	22.86	8.87	126	0.000	Significant

Level of Significance=5%

Effect of AI-based recruitment tools on candidate experience

Table 8 is highlighting the respondents' agreement with the statements related to effect of AI-based recruitment tools on candidate experience. Employees said that AI tools have made recruitment process more transparent for candidates (Mean=4.05), these tools have ensured better

communication with candidates (Mean=3.83) and have also reduced the bias in candidate evaluation (Mean=3.74). According to results overall candidate satisfaction have been improved (Mean=3.61) because candidates used to receive timely feedback (Mean=3.52) and quicker response (Mean=3.44) due to AI based recruitment tools.

Table 8: Effect of AI-based recruitment tools on candidate experience

Effect of AI-based recruitment tools on candidate experience	Mean	S.D.	C.V.	Agreement Level
AI-based tools provide quicker responses to candidates.	3.44	1.05	0.31	Agree
AI tools make the recruitment process more transparent for candidates.	4.05	1.03	0.25	Agree
AI-driven recruitment ensures better communication with candidates.	3.83	1.12	0.29	Agree
AI-based recruitment reduces bias in candidate evaluation.	3.74	1.08	0.29	Agree
Candidates receive timely feedback through AI-enabled systems.	3.52	1.09	0.31	Agree
Overall candidate satisfaction improves due to AI -based recruitment tools.	3.61	1.06	0.29	Agree

More than 80% of the HR professionals (84.25%) indicated the positive effect of AI-based recruitment tools on candidate experience.

Table 9: Overall Effect of AI-based recruitment tools on candidate experience

Overall Effect	N	Percentage
Low	20	15.75
High	107	84.25
Total	127	100

To check the significance of positive effect of AI-based recruitment tools on candidate experience following hypothesis has been taken:-

H₀3: There is no significant effect of AI-based recruitment tools on candidate experience.

H_a3: There is a significant effect of AI-based recruitment tools on candidate experience.

The one sample t-test was applied against the theoretical mean 18, for testing of above hypothesis. The computed mean (22.11) is higher than theoretical mean along with the significant value of t-statistic so it can be concluded that there is a effect of AI-based recruitment tools on candidate experience.

Table 10: One sample t-test result to measure Effect of AI-based recruitment tools on candidate experience

Variable	Observed Mean	Test Value = 18			Result
		t-value	degree of freedom	p-value	
Effect of AI-based recruitment tools on candidate experience	22.11	7.21	126	0.000	Significant

Level of Significance=5%

Respondents' satisfaction with AI-based recruitment tools

Table 11 is depicting the respondents' satisfaction with AI-based recruitment tools. It can be seen that HR professionals were highly satisfied with speed of processing (Mean=4.09, Rank=1), ease of use (Mean=3.92, Rank=2), time efficiency (Mean=3.87, Rank=3) and cost effectiveness (Mean=3.74, Rank=4). Respondents were

satisfied with reduction in manual workload (Mean=3.72, Rank=5), accuracy of short listing (Mean=3.63, Rank=6), data security & privacy (Mean=3.54, Rank=7), transparency (Mean=3.47, Rank=8) and system reliability (Mean=3.41, Rank=9) however they were comparatively less satisfied with integration with HR system (Mean=3.32, Rank=10) and decision support quality (Mean=3.22, Rank=11),

Table 11: Respondents' satisfaction with AI-based recruitment tools

Factors	Mean	S.D.	C.V.	Rank
Ease of Use	3.92	0.87	0.22	2
Time Efficiency	3.87	0.94	0.24	3
Accuracy of Shortlisting	3.63	0.99	0.27	6
Reduction in Manual Workload	3.72	1.05	0.28	5
System Reliability	3.41	1.12	0.33	9
Speed of Processing	4.09	0.91	0.22	1
Decision Support Quality	3.22	1.07	0.33	11
Cost Effectiveness	3.74	1.05	0.28	4
Data Security and Privacy	3.54	1.11	0.31	7
Integration with HR Systems	3.32	1.05	0.32	10
Transparency of AI Decisions	3.47	0.86	0.25	8

Overall 81.10% respondents indicated satisfaction with AI-based recruitment tools but 18.90% respondents were dissatisfied with AI-based recruitment tools.

Table 12: Respondents' overall satisfaction with AI-based recruitment tools

Overall Satisfaction	N	Percentage
Low	24	18.90
High	103	81.10
Total	127	100

To check the significance of difference in employees' satisfaction towards AI based recruitment tools with respect to their frequency of using these tools following hypothesis has been taken:-

H₀4: Employees' satisfaction with AI-based recruitment tools is indifferent with respect to their frequency of using these tools.

H_a4: Employees' satisfaction with AI-based recruitment tools is significantly different with respect to their frequency of using these tools.

To test this hypothesis the data of employees' satisfaction towards AI based recruitment tools was cross tabulated according to their frequency of using these tools and then chi-square test was used. The result has proved the significance of chi-statistic so it can be concluded that employees' satisfaction with AI-based recruitment tools is significantly different with respect to their frequency of using these tools.

Table 13: Chi-square test result to measure difference in Respondents' satisfaction with AI-based recruitment tools with respect to their frequency of using tools

Frequency of using AI tools	Employees' Satisfaction			Chi - Statistic	p-value	Result
	Low	High	Total			
Rarely	10	5	15	25.85	0.000	Significant
Sometimes	8	44	52			
Often	4	36	40			
Always	2	18	20			
Total	24	103	127			

Level of Significance=5%

Conclusion

The results revealed that majority of HR professionals were familiar with AI based recruitment tools and they generally used these tools for candidates sourcing, screening and communicating with candidates. The age and experience of HR professionals have significant impact on their awareness about AI based recruitment tools.

According to respondents the AI has reduced manual workload of HR professionals because these softwares are capable of handling large volumes of job applications efficiently as well as can reduce the overall time-to-hire. Overall it was observed that 90.55% HR professionals indicated the positive impact of AI based recruitment tools on hiring efficiency.

Employees said that AI tools have made recruitment process more transparent for candidates; these tools have ensured better communication with candidates and have

also reduced the bias in candidate evaluation. More than 80% of the HR professionals (84.25%) indicated the positive effect of AI-based recruitment tools on candidate experience.

HR professionals were highly satisfied with speed of, ease of use, time efficiency and cost effectiveness. Respondents were satisfied with reduction in manual workload, accuracy of short listing, data security & privacy, transparency and system reliability however they were comparatively less satisfied with integration with HR system and decision support quality.

Overall 81.10% respondents indicated satisfaction with AI-based recruitment tools but 18.90% respondents were dissatisfied with AI-based recruitment tools. The chi-square test revealed that employees' satisfaction with AI-based recruitment tools is significantly different with respect to their frequency of using these tools.

Implications of the study:

The outcomes of this study have practical implications for both organizations and HR professionals in relation to adopting and effectively using AI-based recruitment tools. Given that most of the HR professionals were aware of and were using the AI tools in candidate sourcing, screening and communication, organizations should further support these tools to further improve the efficiency of the recruitment processes. Due to the substantial effect of both age and experience on the awareness level, it is suggested that appropriate training and upskilling programs should be designed to assist all HR professionals regardless of their age and experience level in using the AI-based recruitment tools in order to fully exploit their potential.

The study suggests that the AI-based recruitment tools result in enhancing efficiency and candidates' experience by cutting down the tedious work and improving the recruitment time and communication with candidates. High satisfaction among HR professionals in the time and accuracy of shortlisting, time efficiency and cost effectiveness suggests that AI is a powerful tool for strategic support in today's recruitment. The relatively low satisfaction with regard to system compatibility and decision-making effectiveness implies that organizations must work on better compatibility of the tools with existing HR system and enhance their analytical abilities. Such improvements will lead to increased user satisfaction, and more regular usage of the tools, thereby enhancing the organizational recruiting effectiveness.

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