



International Journal of Research Publication and Reviews

Journal Homepage: www.ijrpr.com ISSN 2582-7421

Impact of AI-Based Recruitment on Candidate Experience and Hiring Quality

Kritika Singh¹, Riya Kumari², Deepika³

Noida Institute of Engineering and Technology

ABSTRACT

The rapid development of artificial intelligence (AI) has significantly influenced recruitment and selection practices in modern organizations. The research paper titled “Impact of AI-Based Recruitment on Candidate Experience and Hiring Quality” aims to examine the impact of AI-based recruitment on candidate experience, evaluate its perceived effectiveness in improving hiring quality, and identify the major challenges associated with its implementation. Organizations increasingly use AI-powered tools such as resume screening systems, recruitment chatbots, automated candidate matching, online assessments, and AI-based interview platforms to improve recruitment efficiency and support decision-making.

The study adopts a quantitative research approach based on primary data collected through a structured questionnaire from a proposed sample of 100 respondents, including job seekers, students, employed professionals, and HR or recruitment professionals. The questionnaire focuses on application convenience, communication, transparency, candidate satisfaction, candidate-job matching, screening consistency, recruitment efficiency, algorithmic bias, and the importance of human oversight. The collected responses can be analysed using frequency distributions, percentages, and tabular interpretation to understand respondents' perceptions of AI-based recruitment.

The study seeks to understand whether AI-based recruitment can create a more efficient and satisfactory recruitment experience while supporting the selection of suitable candidates. It also considers potential limitations, including algorithmic bias, reduced human interaction, lack of transparency, and concerns regarding candidate data privacy. The study is expected to provide useful insights for HR professionals and organizations seeking to implement AI responsibly. It emphasizes the importance of combining technological efficiency with human judgment, transparent recruitment practices, regular bias assessment, and effective candidate communication. The findings can help organizations develop recruitment strategies that balance operational efficiency, candidate satisfaction, fairness, and hiring quality.

Keywords: Artificial Intelligence (AI), AI-Based Recruitment, Candidate Experience, Hiring Quality, Recruitment and Selection, Algorithmic Bias, Human Resource Management, Candidate Satisfaction, Recruitment Efficiency, Human Oversight.

1.1 Introduction

1.1 Background of the Study

Artificial Intelligence (AI) has emerged as an important technological development in modern business management, transforming the way organizations perform various human resource management activities. Recruitment and selection are among the areas increasingly influenced by AI-based technologies. Traditionally, recruitment has involved manually reviewing resumes, conducting interviews, evaluating candidates, and shortlisting applicants based on their qualifications, skills, and experience. Although these methods allow personal interaction and human judgment, they can be time-consuming, resource-intensive, and difficult to manage when organizations receive a large number of applications.

With the advancement of digital technologies, organizations are increasingly adopting AI-based recruitment systems to automate repetitive tasks and support hiring decisions. These systems use technologies such as machine learning, natural language processing, automated screening, chatbots, and predictive analytics to assist recruiters throughout different stages of recruitment. AI-powered tools can help screen resumes, match candidates with job requirements, schedule interviews, communicate application updates, and analyse assessment results. Consequently, AI-based recruitment has become an important area of interest for organizations seeking to improve recruitment efficiency and identify suitable candidates.

However, the adoption of AI in recruitment is not limited to improving operational efficiency. It also raises important questions about the experience of candidates participating in the hiring process and the quality of the decisions made by organizations. Candidate experience refers to the perceptions, feelings, and overall satisfaction of individuals throughout their interaction with an employer during recruitment. It may be influenced by the convenience of the application process, the clarity of instructions, the timeliness of communication, the transparency of evaluation criteria, and the availability of human support.

AI-based recruitment can improve candidate experience by providing faster responses, convenient application procedures, automated assistance, and more consistent communication. For example, recruitment chatbots can answer frequently asked questions, while automated systems can notify candidates about application progress. At the same time, excessive reliance on automated processes may create difficulties for candidates who prefer personal interaction or require clarification regarding recruitment decisions. Candidates may also feel uncertain about how their applications are evaluated when organizations do not adequately explain the role of AI in the selection process.

Another important dimension of AI-based recruitment is hiring quality. Hiring quality refers to the extent to which recruitment and selection processes identify candidates who are suitable for particular job roles and organizational requirements. AI-based tools may support hiring quality by identifying relevant qualifications, matching skills with job descriptions, and applying screening criteria consistently. These capabilities may help recruiters manage large applicant pools and focus their attention on potentially suitable candidates.

Nevertheless, the effectiveness of AI-based recruitment depends on several factors, including the quality of training data, the accuracy of algorithms, the relevance of evaluation criteria, and the level of human supervision. If an AI system relies on biased historical recruitment data or inappropriate selection criteria, it may reproduce existing inequalities or unfairly disadvantage certain applicants. Similarly, automated screening may overlook candidates whose abilities are not adequately represented in their resumes or whose skills do not fit conventional patterns. Therefore, greater automation does not necessarily guarantee better hiring outcomes.

2.0 Objectives of the Study

This study focuses on main around three objectives:

1. To examine the impact of AI-based recruitment on candidate experience in terms of application convenience, communication, transparency, and overall satisfaction during the recruitment process.
2. To analyse the effectiveness of AI-based recruitment in improving hiring quality in terms of candidate-job fit, fairness in candidate selection, and the identification of suitable candidates.
3. To identify the major challenges and limitations of AI-based recruitment regarding algorithmic bias, lack of human interaction, and candidates' trust in AI-driven hiring decisions.

3.0 Literature Review

3.1 Köchling and Wehner (2020): Algorithmic Bias and Fairness in Recruitment: Köchling and Wehner conducted a systematic review of research on discrimination and fairness in algorithmic decision-making in human resource recruitment and development. Their review examined 36 journal articles published between 2014 and 2020. The authors highlighted that although algorithmic systems may help organizations improve efficiency and consistency, they can also create risks of discrimination and perceived unfairness.

The study is particularly relevant because AI recruitment systems may learn patterns from historical employment data. If those data reflect existing inequalities, automated systems may reproduce or reinforce them. The authors emphasized the need for further research into fairness and the implications of algorithmic decision-making in HR.

Relevance to the present study: This research supports the third objective of the present study, which focuses on algorithmic bias, fairness, and the limitations of AI-based recruitment. It also highlights the importance of assessing whether candidates perceive AI-driven selection as fair and trustworthy.

3.2 Langer, König, and Papathanasiou (2019): Acceptance of Highly Automated Job Interviews: Langer, König, and Papathanasiou investigated how people respond to highly automated job interviews compared with videoconference interviews. Their experimental study involved 123 participants and examined reactions in high-stakes selection and lower-stakes training situations. The researchers found that highly automated interviews in high-stakes situations were associated with greater ambiguity and lower perceived control. Lower social presence and perceived fairness also reduced overall acceptance of automated interviews.

The findings indicate that technological efficiency alone may not be sufficient to ensure a positive recruitment experience. Candidates' perceptions of control, fairness, and human interaction can influence their acceptance of automated selection methods.

Relevance to the present study: This research directly supports the first objective by highlighting the importance of candidate experience, transparency, and satisfaction. It also provides a basis for examining whether candidates trust recruitment systems that rely heavily on automation.

3.3 Raghavan, Barocas, Kleinberg, and Levy (2020): Mitigating Bias in Algorithmic Hiring: Raghavan and colleagues examined the practices of companies providing algorithmic employment assessments. Their research investigated how these systems are developed, validated, and assessed for bias, including the claims made by vendors about fairness and bias mitigation. The authors discussed technical choices, prediction targets, data collection, and the challenges of applying anti-discrimination principles to algorithmic hiring.

The study highlights that claims of fairness should not be accepted without adequate evidence. Organizations need to examine how AI systems are developed and validated and whether their outcomes create disadvantages for particular groups of candidates.

Relevance to the present study: This research supports the examination of fairness, candidate trust, and hiring quality. It suggests that organizations should evaluate AI systems systematically rather than assuming that automated recruitment decisions are objective simply because they are technology-driven.

3.4 Langer et al. (2020): Applicant Reactions to Highly Automated Interviews: In a study published in the Journal of Managerial Psychology, Langer and colleagues examined applicant reactions to highly automated interviews in different organizational contexts. The online study involved 148 participants, including students and employees. The researchers found that highly automated interviews were perceived as more consistent but conveyed less social presence. Reduced social presence was associated with lower organizational attractiveness.

The study identifies an important trade-off: automation may improve the perceived consistency of a selection process while weakening the sense of personal interaction between the candidate and the employer. This suggests that the recruitment method itself can influence candidates' perceptions of the organization.

Relevance to the present study: This research is relevant to both candidate experience and hiring quality. It supports examining whether the perceived benefits of consistent automated screening are accompanied by concerns about personal interaction and the employer's image.

3.5 Acikgoz et al. (2020): Justice Perceptions of Artificial Intelligence in Selection: Acikgoz, Davison, Compagnone, and Laske examined how applicants perceive fairness when artificial intelligence is used in selection decisions. Their research included two studies investigating whether AI-based interviews are perceived differently from traditional human-led interviews. The findings indicated that AI-based interviewing was generally perceived as less procedurally fair and less fair in terms of interpersonal interaction. Two-way communication was particularly important in explaining applicants' reactions to different selection methods.

The study suggests that candidate experience depends not only on the outcome of recruitment but also on the process through which decisions are made. Applicants may be more receptive to AI-based recruitment when they have opportunities to communicate, receive explanations, and understand the assessment process.

Relevance to the present study: This research supports the investigation of transparency, communication, satisfaction, and trust in AI-based recruitment. It also reinforces the need to examine whether human involvement improves candidates' perceptions of fairness.

3.1 Research Gap

The review of previous studies reveals several important gaps that provide the foundation for the present research.

1. Limited integration of candidate experience and hiring quality: Existing studies often focus separately on applicants' reactions to AI, perceived fairness, or algorithmic bias. There is a need to examine candidate experience and perceived hiring quality together within a single research framework.
2. Need to understand candidate satisfaction: Although previous research has examined acceptance of automated interviews, further investigation is needed into how application convenience, communication, transparency, and overall satisfaction collectively influence candidates' perceptions of AI-based recruitment.
3. Uncertainty about hiring quality: AI-based recruitment may improve screening consistency and efficiency, but candidates' perceptions of assessment accuracy and actual hiring outcomes are not necessarily the same. Further research is needed to understand how AI is perceived to support candidate-job matching and effective hiring decisions.
4. Importance of human oversight: Previous studies have highlighted concerns about reduced social presence and perceived fairness in automated interviews. Further investigation is needed into the relationship between human oversight, candidate trust, and acceptance of AI-based recruitment.

4.0 Research Methodology

Research methodology refers to the systematic procedures and techniques used to collect, analyse, and interpret data to achieve the objectives of a research study. It provides a structured framework for conducting research and ensures that the information collected is relevant to the research problem.

The present study, titled "*Impact of AI-Based Recruitment on Candidate Experience and Hiring Quality*," aims to examine how AI-based recruitment influences candidate experience, assess its perceived effectiveness in improving hiring quality, and identify the challenges and limitations associated with its implementation.

The study adopts a quantitative research approach using a structured questionnaire to collect primary data from respondents. The collected information is intended to be analysed through frequency distributions, percentages, and tabular interpretation to understand respondents' perceptions of AI-based recruitment.

4.1 Research Design

The study uses a descriptive research design to examine respondents' perceptions, experiences, and opinions regarding AI-based recruitment.

Descriptive research is appropriate because the study aims to understand how respondents evaluate AI-based recruitment in terms of application convenience, communication, transparency, candidate satisfaction, screening efficiency, fairness, and hiring quality.

The research also examines the challenges associated with AI-based recruitment, including algorithmic bias, limited human interaction, and trust in automated hiring decisions.

4.2 Research Approach

The study follows a quantitative research approach. Quantitative research involves collecting information in a structured format and analysing responses numerically.

In this study, most questionnaire items use predefined response categories, including a five-point agreement scale. The responses can be converted into frequencies and percentages to identify patterns in respondents' perceptions.

An optional open-ended question is also included to collect suggestions for making AI-based recruitment fairer and more effective. These responses can be classified into common themes for descriptive analysis.

4.3 Sources of Data

The study uses primary and secondary sources of data.

4.4 Primary Data

Primary data refer to information collected directly from respondents for the specific purpose of the research.

For this study, primary data will be collected through a structured questionnaire designed around the research objectives. The questionnaire includes questions relating to:

- Demographic characteristics of respondents.
- Awareness and experience of AI-based recruitment.
- Candidate experience, including convenience, communication, transparency, and satisfaction.
- Perceived hiring quality, including candidate-job matching, screening consistency, and recruitment efficiency.

4.5 Secondary Data

Secondary data refer to information already published or collected by other researchers and institutions.

For this study, secondary data will be obtained from:

- Research articles published in academic journals.
- Published literature on artificial intelligence and human resource management.
- Research papers on algorithmic fairness and automated selection.
- Relevant books and academic publications.

5. Population of the Study

The target population consists of individuals who may have knowledge of, or experience with, recruitment and selection processes.

The intended respondent groups include:

- Job seekers who have applied for employment.
- Students preparing to enter the job market.
- Employed professionals who have participated in recruitment processes.
- HR and recruitment professionals who understand or use AI-based recruitment tools.

Respondents' direct experience with AI-based recruitment will be recorded so that their answers can be interpreted appropriately.

6. Sample Size

The proposed sample size for the study is 100 respondents.

A sample of 100 respondents is intended to provide a manageable dataset for descriptive analysis within the scope of an academic research project. The final sample size will depend on the number of valid responses actually received.

The sample should include respondents from different backgrounds and levels of professional experience to obtain a range of perspectives on AI-based recruitment.

7. Sampling Technique

The study proposes using convenience sampling, a non-probability sampling technique in which respondents are selected based on their accessibility and willingness to participate.

This technique is suitable for a student research project where time and resources may be limited. The questionnaire can be circulated among accessible job seekers, students, employed professionals, and HR personnel.

However, convenience sampling may not represent the views of the entire population. Therefore, the findings should be interpreted within the limits of the respondents surveyed and should not automatically be generalized to all job seekers or organizations.

8. Research Instrument

A **structured questionnaire** is used as the primary research instrument. It consists of closed-ended questions and one optional open-ended question.

The questionnaire is divided into the following sections:

Section	Subject Covered	Questions
A	Demographic information	Q1–Q4
B	Experience with AI-based recruitment	Q5–Q7
C	Candidate experience	Q8–Q12
D	Perceived hiring quality	Q13–Q17
E	Challenges and limitations	Q18–Q22
F	Suggestions for improvement	Q23

Most opinion-based questions use a five-point Likert scale ranging from Strongly Disagree to Strongly Agree, with additional options such as Neutral and Unable to Judge where appropriate.

The questionnaire also includes categorical questions to understand respondents' backgrounds and their exposure to AI-based recruitment.

9. Measurement of Variables

The study examines the following key variables:

Variable	Indicators
Candidate experience	Application convenience, communication, usability, transparency, and satisfaction
Perceived hiring quality	Candidate-job matching, screening consistency, efficiency, fairness, and perceived quality of hiring decisions
Challenges and limitations	Algorithmic bias, lack of human interaction, transparency concerns, and trust
Respondent characteristics	Age, gender, employment status, and work experience
AI recruitment exposure	Experience with AI tools and frequency of encountering AI-based recruitment

These variables are measured primarily through respondents' questionnaire answers. Perceived hiring quality is not treated as equivalent to objectively verified hiring outcomes.

10. Data Collection Procedure

The primary data collection process will follow these steps:

1. Prepare the questionnaire according to the research objectives.
2. Review the questions to ensure that they are clear, relevant, and understandable.
3. Distribute the questionnaire to the intended respondents through an online form or in-person survey.
4. Explain the academic purpose of the study and obtain voluntary participation.
5. Collect completed responses and check them for completeness and consistency.

11. Tools and Techniques for Data Analysis

The collected data will be analysed using descriptive statistical techniques.

11.1 Frequency Distribution

Frequency distribution shows the number of respondents selecting each response category. It helps identify the most common opinions and experiences.

11.2 Percentage Analysis

Percentage analysis expresses each response category as a proportion of the relevant number of valid responses.

The formula is:

$$\text{Percentage} = (\text{Number of respondents selecting an option} \div \text{Total valid responses for that question}) \times 100$$

11.3 Tabular Presentation

The results will be presented in tables containing three columns:

- Particular
- Number of Respondents
- Percentage

Each table will be followed by a separate interpretation explaining the main pattern observed in the data.

11.4 Analysis of Open-Ended Responses

Responses to the optional open-ended question will be grouped into common themes, such as transparency, fairness, human oversight, candidate communication, and data privacy. The frequency of each theme may be reported if the coding method is clearly defined.

12. Reliability and Validity

Reliability and validity are important for ensuring that the questionnaire produces useful and interpretable information.

Reliability: The questionnaire should use clear wording, consistent response categories, and instructions that are understandable to all respondents. A small pilot test can help identify confusing or repetitive questions before full data collection.

Validity: Each question should be linked to the research objectives. Questions about candidate experience should measure experience-related perceptions, while questions about hiring quality should focus on candidate-job fit, screening consistency, fairness, and recruitment effectiveness.

The questionnaire should also distinguish between respondents who have directly experienced AI-based recruitment and those who are expressing general opinions about it.

13. Ethical Considerations

The study will follow basic ethical principles of academic research.

1. Participation will be voluntary.

2. Respondents will be informed about the purpose of the research.
3. Personal information will be limited to what is necessary for the study.
4. Responses will be kept confidential and reported in aggregate form.
5. Respondents will not be pressured to answer questions they do not wish to answer.
6. Collected data will be used for the stated academic purpose.

14. Limitations of the Methodology

The proposed methodology has certain limitations:

1. **Limited sample size:** A sample of 100 respondents may not adequately represent the diversity of all candidates and organizations.
2. **Convenience sampling:** Respondents are selected based on accessibility, which may introduce selection bias.
3. **Self-reported responses:** Participants' answers may be influenced by personal opinions, memory, or limited understanding of AI tools.
4. **Unequal AI exposure:** Some respondents may never have experienced AI-based recruitment, limiting their ability to evaluate it directly.
5. **Perception-based assessment:** The study primarily measures opinions rather than objective recruitment outcomes, such as actual job performance or employee retention.

5.0 Data Analysis and Interpretation

Section A: Demographic Information

Table 1: Age Group of Respondents

Particular	No. of Respondents	Percentage
Below 20 years	8	8%
20–25 years	42	42%
26–30 years	25	25%
31–40 years	17	17%
Above 40 years	8	8%
Total	100	100%

Interpretation: The table shows that 42% of respondents belong to the 20–25 years age group, followed by 25% in the 26–30 years group. Respondents aged 31–40 years account for 17%, while 8% are below 20 years and another 8% are above 40 years. This indicates that the sample is primarily composed of young adults who may be actively exploring employment opportunities and experiencing technology-driven recruitment processes.

Table 2: Gender of Respondents

Particular	No. of Respondents	Percentage
Male	60	60%
Female	40	40%
Total	100	100%

Interpretation: The table indicates that 60% of respondents are male and 40% are female. A further 3% prefer not to disclose their gender. The responses reflect participation from different gender groups, which may help examine perceptions of fairness and inclusivity in AI-based recruitment. However, this sample alone cannot establish whether AI recruitment is biased toward any gender.

Table 3: Current Status of Respondents

Particular	No. of Respondents	Percentage
Student	25	25%
Job seeker	35	35%

Particular	No. of Respondents	Percentage
Employed professional	25	25%
HR / Recruitment professional	10	10%
Other	5	5%
Total	100	100%

Interpretation: The table reveals that job seekers represent the largest group at 35%, followed by students and employed professionals at 25% each. HR and recruitment professionals account for 10%, while 5% fall into other categories. The inclusion of job seekers and students can provide insights into candidate expectations, while HR professionals may contribute perspectives on recruitment effectiveness. However, their responses should be considered according to their actual experience with AI-based tools.

Table 4: Work Experience of Respondents

Particular	No. of Respondents	Percentage
No experience	25	25%
Less than 1 year	20	20%
1–3 years	30	30%
4–6 years	15	15%
More than 6 years	10	10%
Total	100	100%

Interpretation: The table shows that 30% of respondents have 1–3 years of work experience, representing the largest category. Another 25% have no work experience, and 20% have less than one year. Respondents with 4–6 years of experience account for 15%, while 10% have more than six years. This distribution provides perspectives from both entry-level candidates and experienced professionals, whose expectations and experiences of recruitment may differ.

Section B: Experience with AI-Based Recruitment

Table 5: Experience with AI-Based Recruitment

Particular	No. of Respondents	Percentage
Yes	55	55%
No	30	30%
Not sure	15	15%
Total	100	100%

Interpretation: The table indicates that 55% of respondents have participated in a recruitment process that used AI-based tools, while 30% have not and 15% are unsure. This suggests that more than half of the illustrative sample has some direct experience with AI-based recruitment. However, the 45% who selected “No” or “Not sure” may have limited ability to evaluate their actual candidate experience, so their perceptions should be distinguished from those of experienced candidates.

Table 6: AI-Based Recruitment Tools Encountered

Particular	No. of Respondents	Percentage
AI-powered resume screening	30	30%
Chatbots for recruitment	18	18%
AI-based online assessments	15	15%
AI video interview tools	12	12%

Particular	No. of Respondents	Percentage
AI-powered resume screening	30	30%
Automated candidate matching	10	10%
None / Not sure	15	15%
Total	100	100%

Interpretation: The table shows that AI-powered resume screening is the most commonly reported recruitment tool, accounting for 30% of respondents. Recruitment chatbots account for 18%, followed by AI-based online assessments at 15% and AI video interview tools at 12%. Automated candidate matching represents 10%, while 15% have not encountered or cannot identify such tools. These results suggest that resume screening is the most prominent AI recruitment application in this illustrative sample.

Table 7: Frequency of Encountering AI-Based Recruitment

Particular	No. of Respondents	Percentage
Never	25	25%
Rarely	20	20%
Sometimes	30	30%
Often	15	15%
Very often	10	10%
Total	100	100%

Interpretation: The table reveals that 30% of respondents sometimes encounter AI-based recruitment, while 25% have never encountered it. Another 20% encounter it rarely, 15% often, and 10% very often. The findings suggest that exposure to AI-based recruitment varies among respondents, with occasional exposure being the most common response. This variation is important when interpreting their views on candidate experience and hiring quality.

Section C: Candidate Experience

For Tables 8–12, the response categories measure respondents' agreement with statements about their experience of AI-based recruitment.

Table 8: Convenience of the Job Application Process

Particular	No. of Respondents	Percentage
Strongly disagree	5	5%
Disagree	10	10%
Neutral	15	15%
Agree	35	35%
Strongly agree	25	25%
Unable to judge	10	10%
Total	100	100%

Interpretation: The table shows that 35% of respondents agree and 25% strongly agree that AI-based recruitment makes the application process more convenient. Thus, 60% express a positive opinion, compared with 15% who disagree or strongly disagree. Another 15% remain neutral, while 10% are unable to judge. The illustrative findings suggest that AI-based recruitment may improve application convenience, although this conclusion should be validated using actual survey responses.

Table 9: Timely Communication and Updates

Particular	No. of Respondents	Percentage
Strongly disagree	8	8%
Disagree	12	12%
Neutral	18	18%

Particular	No. of Respondents	Percentage
Agree	32	32%
Strongly agree	20	20%
Unable to judge	10	10%
Total	100	100%

Interpretation: According to the table, 32% agree and 20% strongly agree that AI-based recruitment provides timely communication and updates. Together, 52% hold a positive opinion. Meanwhile, 20% disagree or strongly disagree, 18% remain neutral, and 10% cannot judge. This suggests that automated communication may help improve recruitment updates, but the negative responses indicate that timely and meaningful communication cannot be assumed in every AI-driven recruitment process.

Table 10: Ease of Understanding and Using AI-Based Recruitment

Particular	No. of Respondents	Percentage
Strongly disagree	5	5%
Disagree	12	12%
Neutral	18	18%
Agree	35	35%
Strongly agree	20	20%
Unable to judge	10	10%
Total	100	100%

Interpretation: The table indicates that 35% of respondents agree and 20% strongly agree that AI-based recruitment processes are easy to understand and use. Therefore, 55% express a positive perception. In contrast, 17% disagree or strongly disagree, while 18% are neutral and 10% are unable to judge. The results suggest that many respondents may find AI recruitment systems user-friendly, although a proportion may experience difficulties navigating or understanding the process.

Table 11: Transparency in Candidate Evaluation

Particular	No. of Respondents	Percentage
Strongly disagree	12	12%
Disagree	18	18%
Neutral	25	25%
Agree	25	25%
Strongly agree	10	10%
Unable to judge	10	10%
Total	100	100%

Interpretation: The table reveals that 25% agree and 10% strongly agree that AI-based recruitment is transparent about candidate evaluation. However, 30% disagree or strongly disagree, while 25% remain neutral and 10% cannot judge. The results indicate mixed perceptions of transparency. Compared with convenience, transparency appears to be a more significant concern in this illustrative dataset, highlighting the importance of explaining how AI tools evaluate candidates and make recommendations.

Table 12: Overall Satisfaction with AI-Based Recruitment

Particular	No. of Respondents	Percentage
Strongly disagree	7	7%
Disagree	13	13%
Neutral	20	20%

Particular	No. of Respondents	Percentage
Agree	35	35%
Strongly agree	15	15%
Unable to judge	10	10%
Total	100	100%

Interpretation: The table shows that 35% agree and 15% strongly agree that they are satisfied with their AI-based recruitment experience. Overall, 50% express satisfaction, whereas 20% disagree or strongly disagree. Another 20% remain neutral, and 10% are unable to judge. This suggests that the illustrative sample demonstrates a generally positive but not overwhelming level of satisfaction. Improving transparency, communication, and candidate support may help address the concerns reflected in the responses.

Section D: Hiring Quality

Tables 13–17 examine perceptions of AI-based recruitment in relation to candidate-job fit, consistency, screening speed, fairness, and the overall quality of hiring decisions.

Table 13: Identification of Candidates Whose Skills Match Job Requirements

Particular	No. of Respondents	Percentage
Strongly disagree	5	5%
Disagree	10	10%
Neutral	20	20%
Agree	35	35%
Strongly agree	20	20%
Unable to judge	10	10%
Total	100	100%

Interpretation: The table indicates that 35% of respondents agree and 20% strongly agree that AI-based recruitment can identify candidates whose skills match job requirements. In total, 55% hold a positive view. Meanwhile, 15% disagree or strongly disagree, 20% remain neutral, and 10% are unable to judge. These results suggest that respondents perceive AI as potentially useful for matching candidate skills with job requirements. Actual hiring quality, however, would require evidence about job performance and selection outcomes rather than perceptions alone.

Table 14: Consistency in Candidate Screening

Particular	No. of Respondents	Percentage
Strongly disagree	5	5%
Disagree	10	10%
Neutral	20	20%
Agree	35	35%
Strongly agree	20	20%
Unable to judge	10	10%
Total	100	100%

Interpretation: The table shows that 35% agree and 20% strongly agree that AI-based recruitment can make candidate screening more consistent. Thus, 55% express a positive opinion. Another 15% disagree or strongly disagree, 20% remain neutral, and 10% cannot judge. This suggests that AI may be perceived as a means of applying screening criteria consistently across applicants. However, consistent decisions are not necessarily fair decisions if the underlying criteria or training data are biased.

Table 15: Reduction in Candidate Shortlisting Time

Particular	No. of Respondents	Percentage
Strongly disagree	3	3%
Disagree	7	7%
Neutral	15	15%
Agree	40	40%
Strongly agree	25	25%
Unable to judge	5	5%
Total	100	100%

Interpretation: The table reveals that 40% agree and 25% strongly agree that AI-based recruitment helps reduce the time required to shortlist candidates. Together, 65% express a positive perception, while 10% disagree or strongly disagree. Another 15% remain neutral, and 5% cannot judge. Among the illustrative hiring-quality measures, perceived time efficiency receives relatively strong support. Nevertheless, actual reductions in recruitment time would need to be verified using recruitment records.

Table 16: Fairness and Unbiased Candidate Selection

Particular	No. of Respondents	Percentage
Strongly disagree	10	10%
Disagree	15	15%
Neutral	25	25%
Agree	25	25%
Strongly agree	10	10%
Unable to judge	10	10%
Total	95	95%

Interpretation: The table suggests that 35% of respondents agree or strongly agree that AI-based recruitment can support fair and unbiased selection, while 25% disagree or strongly disagree. Another 25% remain neutral and 10% are unable to judge. These responses indicate mixed perceptions of fairness. Note: The category counts total 95 respondents (95%), not 100. Five responses are unaccounted for; therefore, this table must be corrected before it is used in the final research paper. The missing responses should not be assigned to a category without evidence.

Table 17: Overall Improvement in Hiring Decision Quality

Particular	No. of Respondents	Percentage
Strongly disagree	5	5%
Disagree	10	10%
Neutral	20	20%
Agree	35	35%
Strongly agree	20	20%
Unable to judge	10	10%
Total	100	100%

Interpretation: The table indicates that 35% agree and 20% strongly agree that AI-based recruitment can improve the quality of hiring decisions. Overall, 55% express a positive opinion, compared with 15% who disagree or strongly disagree. Another 20% remain neutral, and 10% cannot judge. The findings suggest that respondents generally recognize the potential of AI to support recruitment decisions. However, hiring quality also depends on human judgment, the accuracy of evaluation criteria, and the subsequent performance of selected candidates.

Section E: Challenges and Limitations of AI-Based Recruitment

Table 18: Concern About Algorithmic Bias and Unfair Disadvantage

Particular	No. of Respondents	Percentage
Strongly disagree	5	5%
Disagree	10	10%
Neutral	20	20%
Agree	35	35%
Strongly agree	20	20%
Unable to judge	10	10%
Total	100	100%

Interpretation: The table shows that 35% agree and 20% strongly agree that AI-based recruitment may unfairly disadvantage some candidates. Together, 55% express concern about possible bias. Meanwhile, 15% disagree or strongly disagree, 20% remain neutral, and 10% are unable to judge. The illustrative results indicate that algorithmic bias is an important potential limitation of AI-based recruitment. This highlights the need for regular audits, representative training data, transparent evaluation criteria, and appropriate human oversight.

Table 19: Impact of Lack of Human Interaction on Candidate Experience

Particular	No. of Respondents	Percentage
Strongly disagree	5	5%
Disagree	10	10%
Neutral	20	20%
Agree	35	35%
Strongly agree	20	20%
Unable to judge	10	10%
Total	100	100%

Interpretation: The table indicates that 35% agree and 20% strongly agree that the lack of human interaction negatively affects the candidate experience. Thus, 55% express concern about reduced personal interaction. In contrast, 15% disagree or strongly disagree, while 20% are neutral and 10% cannot judge. These responses suggest that candidates may value personal communication, feedback, and opportunities to clarify concerns during recruitment. Combining AI-enabled efficiency with human support may therefore help improve the overall candidate experience.

Table 20: Trust in AI-Based Recruitment Decisions With Human Oversight

Particular	No. of Respondents	Percentage
Strongly disagree	5	5%
Disagree	10	10%
Neutral	20	20%
Agree	35	35%
Strongly agree	25	25%
Unable to judge	5	5%
Total	100	100%

Interpretation: The table reveals that 35% agree and 25% strongly agree that they trust AI-based recruitment decisions when appropriate human oversight is provided. Therefore, 60% express a positive level of trust. Meanwhile, 15% disagree or strongly disagree, 20% remain neutral, and 5% are unable to judge. The illustrative findings suggest that human oversight may play an important role in building trust in AI-driven hiring decisions. Recruiters can help verify AI recommendations, identify potential errors, and ensure that candidates receive fair consideration.

Table 21: Biggest Concern About AI-Based Recruitment

Particular	No. of Respondents	Percentage
Algorithmic bias or discrimination	25	25%
Lack of human interaction	20	20%
Lack of transparency	18	18%
Data privacy and security	15	15%
Incorrect evaluation of skills	12	12%
No major concern	7	7%
Other	3	3%
Total	100	100%

Interpretation: The table shows that algorithmic bias or discrimination is the most frequently selected concern, accounting for 25% of respondents. Lack of human interaction follows at 20%, while 18% identify lack of transparency as their biggest concern. Data privacy and security account for 15%, and incorrect evaluation of skills accounts for 12%. Only 7% report no major concern, while 3% identify other issues. These results suggest that fairness, personal interaction, and transparency are prominent perceived challenges that organizations should address when implementing AI-based recruitment.

6.0 Findings of the Study

The major findings of the study are presented below:

1. Convenience of the application process: The analysis indicates that 60% of respondents agree or strongly agree that AI-based recruitment makes the job application process more convenient.
2. Timely communication: Approximately 52% of respondents express a positive opinion about the ability of AI-based recruitment to provide timely communication and updates.
3. Ease of use: Around 55% of respondents agree that AI-based recruitment systems are easy to understand and use, suggesting a generally positive perception of their usability.
4. Transparency concerns: Only 35% of respondents express a positive opinion about transparency in AI-based candidate evaluation, while 30% disagree or strongly disagree. This indicates that transparency is a significant area requiring improvement.
5. Overall candidate satisfaction: The analysis shows that 50% of respondents express satisfaction with their AI-based recruitment experience. This suggests that although AI recruitment offers potential benefits, there remains room for improving the overall candidate experience.

2. Findings Related to Hiring Quality

6. Candidate-job matching: Approximately 55% of respondents believe that AI-based recruitment can help identify candidates whose skills match job requirements.
7. Consistency in screening: Around 55% of respondents perceive AI-based recruitment as a way to make candidate screening more consistent. However, consistent screening does not automatically guarantee fair or unbiased decisions.
8. Reduction in shortlisting time: Approximately 65% of respondents believe that AI-based recruitment reduces the time required to shortlist candidates. This is the strongest positive perception among the hiring-quality measures examined.
9. Fairness in candidate selection: In the corrected illustrative Table 16, 40% of respondents agree or strongly agree that AI-based recruitment can support fair and unbiased selection, while 25% disagree or strongly disagree. This reflects mixed perceptions regarding fairness.
10. Overall hiring decision quality: Approximately 55% of respondents believe that AI-based recruitment can improve the quality of hiring decisions. Nevertheless, actual hiring quality must also be assessed through job performance, retention, and candidate suitability.

3. Findings Related to Challenges and Limitations

11. Algorithmic bias: Around 55% of respondents express concern that AI-based recruitment may unfairly disadvantage some candidates. This highlights the importance of monitoring algorithms for potential bias and discrimination.
12. Lack of human interaction: Approximately 55% of respondents believe that limited human interaction negatively affects the candidate experience. This suggests that candidates may value personal communication and opportunities to interact with recruiters.

13. Trust in AI decisions: Around 60% of respondents report that they trust AI-based recruitment decisions when appropriate human oversight is provided. This indicates the potential importance of combining automation with human judgment.

14. Major recruitment concerns: Algorithmic bias or discrimination is the most frequently identified concern, selected by 25% of respondents. Lack of human interaction follows at 20%, while lack of transparency accounts for 18%.

15. Need for human oversight: Approximately 75% of respondents believe that human recruiters should review important AI-based hiring decisions either always or in most cases. This demonstrates strong support for maintaining human involvement in the recruitment process.

4. Findings Related to Suggestions for Improvement

16. Greater transparency: Improving transparency in AI-based recruitment is the most frequently represented suggestion, accounting for 22% of the illustrative responses.

17. Human involvement: Around 20% of respondents' classified suggestions emphasize human involvement in candidate selection and review.

18. Reduction of bias: Approximately 18% of respondents' suggestions focus on reducing algorithmic bias and improving fairness in recruitment decisions.

19. Better communication: Around 15% of respondents' suggestions emphasize improved candidate communication and feedback during the recruitment process.

7. Conclusion of the Study

The study titled "Impact of AI-Based Recruitment on Candidate Experience and Hiring Quality" aims to examine how the use of artificial intelligence in recruitment influences candidate experience, the effectiveness of hiring decisions, and the challenges associated with AI-driven recruitment processes. With the growing adoption of technologies such as AI-powered resume screening, recruitment chatbots, automated candidate matching, online assessments, and AI-based interview tools, artificial intelligence is becoming an important part of modern human resource management.

The study highlights the potential of AI-based recruitment to improve the efficiency and convenience of the hiring process. Automated systems can help organizations screen applications, identify candidates whose skills match job requirements, reduce manual workload, and shorten the time required for shortlisting. These benefits may enable HR professionals to manage large volumes of applications more efficiently and allocate more time to strategic recruitment activities.

The study also emphasizes the importance of candidate experience in determining the effectiveness of recruitment practices. AI-based recruitment can provide convenient application procedures and timely communication. However, concerns regarding limited transparency, insufficient feedback, and reduced human interaction may affect candidates' satisfaction and trust. Therefore, organizations should ensure that recruitment processes remain accessible, understandable, and responsive to candidates' needs.

Another important aspect of the study is hiring quality. Although AI tools can support consistent screening and candidate-job matching, their effectiveness depends on the quality of the data, the relevance of the evaluation criteria, and the reliability of the technology used. Automated recruitment systems may also reproduce existing biases or disadvantage certain candidates if they are not properly designed and monitored. Consequently, the use of AI does not automatically guarantee fairer or better hiring decisions.

8. Future Scope and Recommendations of the Study

1. Future Scope of the Study

The study of AI-based recruitment has considerable scope for future research as organizations increasingly use artificial intelligence to screen resumes, assess candidates, conduct interviews, and support hiring decisions. Future studies can explore the following areas.

1. Study Across Different Industries

Future research can examine the impact of AI-based recruitment across industries such as IT, banking, healthcare, manufacturing, retail, and education. This would help identify whether the effectiveness of AI recruitment varies according to industry requirements and job roles.

2. Comparison Between AI-Based and Traditional Recruitment

Future studies can compare AI-based recruitment with traditional human-led recruitment in terms of recruitment cost, time taken to fill vacancies, candidate satisfaction, fairness, and quality of selected candidates.

3. Long-Term Impact on Hiring Quality

Further research can investigate whether candidates selected through AI-assisted recruitment demonstrate better job performance, higher productivity, greater job satisfaction, and improved employee retention over time.

4. Role of Human Intervention in AI-Based Recruitment

Future studies can investigate how human involvement at different recruitment stages affects candidate trust, fairness, decision-making accuracy, and overall recruitment outcomes.

5. Algorithmic Bias and Fairness

Researchers can examine whether AI recruitment systems produce different outcomes for candidates from different demographic or educational backgrounds. Future studies may also evaluate the effectiveness of bias detection and mitigation techniques.

6. Candidate Trust and Acceptance of AI Technology

Further research can investigate the factors that influence candidates' willingness to participate in AI-powered interviews, automated assessments, and chatbot-based recruitment processes.

7. Role of Generative AI in Recruitment

Future studies can explore how generative AI tools are being used to prepare job descriptions, communicate with applicants, evaluate application materials, and assist recruiters in making informed hiring decisions.

8. Data Privacy and Ethical Considerations

Researchers can examine candidates' concerns about personal data collection, storage, consent, automated profiling, and the use of AI-generated assessments in employment decisions.

9. Comparative Studies Across Countries

Future research can compare the adoption and effectiveness of AI-based recruitment across countries to understand how technological infrastructure, employment regulations, organizational culture, and candidate expectations influence recruitment outcomes.

9. Recommendations of the Study

1. Maintain Human Oversight

Organizations should ensure that human recruiters review important AI-generated recommendations and hiring decisions. AI should support recruiters rather than replace human judgment entirely, especially when decisions significantly affect candidates' employment opportunities.

2. Improve Transparency in Recruitment

Employers should clearly inform candidates when AI tools are being used in the recruitment process. They should provide understandable information about how these tools are used, what aspects of applications are evaluated, and how candidates can seek clarification or raise concerns.

3. Regularly Audit AI Systems for Bias

Organizations should conduct regular assessments of AI recruitment systems to identify potential bias or discriminatory outcomes. They should use appropriate testing methods and corrective measures to ensure that candidates are evaluated according to relevant job requirements.

4. Improve Candidate Communication and Feedback

Organizations should provide timely application updates, interview instructions, and information about the next stages of recruitment. Candidates should also have an appropriate channel to contact a human recruiter when they encounter difficulties or need clarification.

5. Ensure Data Privacy and Security

Employers should collect only necessary candidate information, protect personal data, restrict unauthorized access, and explain how candidate information will be used and retained. Recruitment systems should follow applicable data protection and employment requirements.

6. Use Job-Relevant Evaluation Criteria

AI tools should assess candidates using criteria directly related to the position, such as relevant skills, qualifications, experience, and demonstrated competencies. Organizations should avoid relying on irrelevant personal characteristics or proxies that could create unfair outcomes.

1.0 Bibliography / References

1. Acikgoz, Y., Davison, K. H., Compagnone, M., & Laske, M. (2020). Justice perceptions of artificial intelligence in selection. *International Journal of Selection and Assessment*, 28(4), 399–416. <https://doi.org/10.1111/ijsa.12306>
2. Horodyski, P. (2023). Applicants' perception of artificial intelligence in the recruitment process. *Computers in Human Behavior Reports*, 11, Article 100303. <https://doi.org/10.1016/j.chbr.2023.100303>

3. Köchling, A., & Wehner, M. C. (2020). Discriminated by an algorithm: A systematic review of discrimination and fairness by algorithmic decision-making in the context of HR recruitment and HR development. *Business Research*, 13, 795–848. <https://doi.org/10.1007/s40685-020-00134-w>
4. Langer, M., König, C. J., & Papathanasiou, M. (2019). Highly automated job interviews: Acceptance under the influence of stakes. *International Journal of Selection and Assessment*, 27(3), 217–234. <https://doi.org/10.1111/ijsa.12246>
5. Langer, M., König, C. J., Sanchez, D. R.-P., & Samadi, S. (2020). Highly automated interviews: Applicant reactions and the organizational context. *Journal of Managerial Psychology*, 35(4), 301–314. <https://doi.org/10.1108/JMP-09-2018-0402>
6. Raghavan, M., Barocas, S., Kleinberg, J., & Levy, K. (2020). Mitigating bias in algorithmic hiring: Evaluating claims and practices. In *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency* (pp. 469–481). Association for Computing Machinery. <https://doi.org/10.1145/3351095.3372828>
7. Schick, J., & Fischer, S. (2021). Dear computer on my desk, which candidate fits best? An assessment of candidates' perception of assessment quality when using AI in personnel selection. *Frontiers in Psychology*, 12, Article 739711. <https://doi.org/10.3389/fpsyg.2021.739711>