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Research Article

ARTIFICIAL INTELLIGENCE IN RECRUITMENT AND SELECTION: EVIDENCE FROM IT COMPANIES IN CHENNAI

Anitha A*
Assistant Professor in the Department of commerce, Immaculate College for Women, Cuddalore, Tamilnadu, India

* Corresponding author

Kavya M **
Department of commerce, Immaculate College for Women, Cuddalore, India

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Abstract

In human resource management, artificial intelligence (AI) has become a game-changing technology, especially for hiring and selection procedures. In order to improve hiring efficiency, the IT industry, which is marked by fierce competition for qualified workers and quick technological advancements, is depending more and more on AI-powered tools like chatbots, resume screening algorithms, applicant tracking systems, predictive analytics, and automated tests. This study looks at how AI affects hiring and selection procedures in Chennai's IT firms. The study uses a descriptive research approach and collects primary data from 50 respondents who work in IT organisations using structured questionnaires. The study assesses how AI affects hiring speed, candidate quality, cost reduction, bias minimisation, and recruitment efficiency. The results show that AI greatly increases recruiting efficiency, lowers hiring time and manual labour, improves candidate-job fit, and facilitates objective decision-making. However, its application is still hampered by worries about algorithmic bias, transparency, ethical dilemmas, and data privacy. The study comes to the conclusion that although AI has the ability to completely transform talent acquisition, its successful implementation necessitates a well-rounded strategy that blends technology prowess with human judgement to guarantee just, moral, and efficient hiring procedures.

Keywords: Artificial Intelligence, Recruitment, Selection, Human Resource Management, IT Companies, Chennai, Talent Acquisition.

Introduction

Artificial intelligence (AI) has advanced so quickly that it has drastically changed organisational activities in many different industries, especially human resource management (HRM). The need for speed, precision, and efficiency in talent acquisition has led to significant changes in HR functions, including recruiting and selection. In a cutthroat business world, companies are constantly looking for new ways to draw in, evaluate, and employ competent applicants. Because of this, artificial intelligence (AI) has emerged as a significant technical solution that improves recruitment efficacy while lowering the drawbacks of conventional hiring practices.

One of the industries that uses AI-driven hiring techniques the most is information technology (IT). The need for qualified workers is always growing in the extremely dynamic environment in which IT organisations operate. Conventional hiring practices frequently entail drawn-out procedures, substantial manual screening, and subjective decision-making, which can result in delays, higher expenses, and ineffective hiring. Applicant tracking systems (ATS), machine learning algorithms, natural language processing tools, chatbots, predictive analytics, and automated interview platforms are examples of AI-based technology that companies have included into their hiring procedures to address these issues.

By automating tedious activities, evaluating vast amounts of candidate data, finding qualified candidates, and enhancing decision-making precision, artificial intelligence (AI) helps with recruitment and selection. With the use of these technologies, recruiters may shorten the time it takes to hire, match candidates better, improve the quality of recruiting, and improve the applicant experience. Additionally, using data-driven assessment techniques, AI helps organisations reduce human bias and promote uniformity in candidate evaluation.

The use of AI in hiring and selection poses a number of issues with accountability, algorithmic bias, transparency, ethical decision-making, and data privacy despite its many advantages. If AI systems are educated on historical recruitment data that indicates discriminatory behaviours, they may inadvertently reinforce preexisting biases. As a result, companies need to make sure that AI-supported hiring decisions are implemented responsibly and that proper human control is maintained.

Many international companies, software development companies, and technological service providers are based in Chennai, one of India's top IT hubs. The city is a perfect place to study the function of AI in hiring and selection because of its robust digital ecosystem and high demand for qualified personnel. With an emphasis on recruitment effectiveness, hiring quality, cost effectiveness, bias reduction, and overall organisational success, this study

attempts to examine how AI affects recruiting and selection procedures in IT businesses in Chennai. The study's conclusions advance knowledge of how AI might facilitate strategic talent acquisition while resolving adoption-related issues.

Literature Review and Hypotheses Development

Introduction to AI in Recruitment and Selection

Important HR tasks that have a big impact on an organization's performance are recruitment and selection. Conventional hiring practices frequently entail time-consuming and resource-intensive manual resume screening, interviews, and assessments. Effective hiring procedures have a favourable impact on both organisational success and personnel quality, according to Abbas et al. (2021). However, human prejudice, unpredictability, and inefficiency are common drawbacks of traditional employment practices. These difficulties have prompted businesses to investigate technology-based hiring practices.

Artificial Intelligence has transformed recruitment by automating routine tasks and enhancing decision-making processes. Aksoy (2023) highlighted that AI technologies automate several HR functions, including recruitment, employee assessment, training, and performance management. The study emphasized that AI improves efficiency and reduces operational costs while enabling organizations to make data-driven decisions. Similarly, Singh (2025) reported that AI applications significantly improve HR efficiency through automated screening, candidate engagement, and workforce analytics.

One of the primary benefits of AI in recruitment is improved efficiency. Nababan et al. (2024) found that AI significantly enhances recruitment effectiveness through automated resume screening, candidate sourcing, and communication management. By reducing manual intervention, AI enables recruiters to process large applicant pools more efficiently. Bhivgade and Khaire (2025) further observed that AI reduces recruitment time and improves productivity by automating repetitive administrative tasks. These findings suggest that AI helps organizations accelerate hiring processes without compromising quality.

Machine learning and predictive analytics have become integral components of AI-based recruitment systems. According to Frazzetto et al. (2025), machine learning algorithms and large language models can evaluate candidate suitability more accurately than traditional screening methods. Their study proposed an innovative recruitment framework that matches candidates to job vacancies using AI-powered similarity measures. Predictive analytics also enables organizations to forecast candidate performance and retention, contributing to better hiring outcomes.

In recent years, the application of AI in candidate sourcing has drawn a lot of interest. In their analysis of the digital transformation of talent acquisition, Tuttle and Critchlow (2025) discovered that AI systems are capable of quickly analysing hundreds of candidate profiles and accurately forecasting job performance. Their study demonstrated how, in many organisations, internet recruitment ecosystems have supplanted conventional hiring practices. The writers also talked about new technologies that are changing hiring procedures, like blockchain verification, augmented reality, and sophisticated analytics.

Several studies have emphasized the role of AI in improving hiring quality. G. Venkateshwaran (2025) explored the impact of AI on recruitment and selection in the IT sector and concluded that AI improves candidate-job matching, enhances decision quality, and reduces recruitment inefficiencies. AI-powered assessment tools help organizations evaluate technical competencies, behavioral attributes, and organizational fit more objectively. Similarly, Sholikhah et al. (2025) reported that AI significantly improves job-fit predictions and enhances talent acquisition effectiveness.

A key component of successful recruitment is the idea of candidate-job fit. In order to find qualified candidates for certain job tasks, AI technologies examine candidate profiles, abilities, and experiences. By matching competencies with organisational needs, AI-driven screening tools and predictive analytics increase the accuracy of candidate selection, claims Pandey (2025). The study highlighted how AI lowers the possibility of making inappropriate employment decisions and supports evidence-based recruiting decisions.

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Traditional Recruitment and Selection Practices

The Technology Acceptance Model (TAM) is frequently used to explain why AI is accepted in hiring. Recruiters are usually at ease utilising AI for sourcing and screening, but they are still wary when it comes to interview choices and final selection, according to Hewage's (2023) investigation of AI usage across recruitment phases. According to the report, HR professionals' opinions of AI technologies are greatly influenced by perceived utility and usability. This result is consistent with a larger body of research on technology adoption that emphasises user acceptability and organisational preparedness.

Among the most contentious issues in AI recruitment research are fairness and bias reduction. By using uniform evaluation standards, AI has been suggested as a way to lessen these biases. According to Sholikhah et al. (2025), AI helps make hiring decisions more equitable by reducing subjective assessments. Similarly, Zhang et al. (2025) highlighted that when AI is appropriately developed and applied, it can enhance fairness in hiring.

Emergence of Artificial Intelligence in Human Resource Management

Despite these possible advantages, algorithmic bias has drawn criticism from a number of scholars. AI systems educated on past recruitment data may inadvertently mimic current discriminating behaviours, as shown by Mujtaba and Mahapatra (2024). Their research highlighted the

significance of auditing procedures, bias mitigation techniques, and fairness criteria. In a similar vein, Iso et al. (2025) found issues with fairness related to automated candidate evaluation and examined bias in big language models used for job-resume matching.

In AI-driven hiring, ethical issues continue to be a major obstacle. AI-enabled recruiting systems have problems with data privacy, accountability, transparency, and discrimination, according to Hunkenschroer and Luetge (2022). According to their analysis, in order to guarantee responsible AI adoption, organisations must set up ethical governance frameworks. According to Hotho et al. (2020), open hiring procedures are crucial to upholding fairness and organisational trust.

Acceptance of AI recruitment tools is strongly influenced by candidates' views of fairness. Acikgoz et al. (2020) discovered that candidates' desire to engage in AI-based hiring processes is influenced by their perceptions of procedural justice. Candidates are more likely to trust automated recruitment systems when they believe AI decisions are transparent and fair. This opinion was supported by Bhattacharya and Verbert (2025), who showed that explainability and fairness enhance user confidence in multi-agent AI recruitment systems.

In recent studies, the topic of transparency has drawn more attention. Sakib et al. (2026) investigated candidate experiences with AI-mediated hiring and discovered that applicants frequently suffer fear and bewilderment due to ambiguous evaluation criteria. Many participants expressed a lack of knowledge about how AI systems made decisions, which resulted in conjecture and psychological strain. To increase openness and trust, the authors suggested better candidate support systems, accountability, and communication.

Another crucial issue in AI hiring is data privacy. Large volumes of personal data, such as resumes, test scores, social media profiles, and behavioural data, are frequently processed by AI systems. According to Swain and Malik (2025), one of the biggest obstacles to the use of AI in hiring is data privacy. Their systematic review came to the conclusion that in order to ensure that candidate information is handled ethically, organisations must put strong data protection mechanisms in place and adhere to legal frameworks.

There has also been much discussion on the strategic implications of AI in hiring. Allal-Chérif, Aránega, and Sánchez (2021) claim that AI helps companies find, draw in, and keep talent in international markets. Their study showed that AI aids worldwide talent acquisition tactics and improves recruitment scalability. In a similar vein, Bursell and Roumbanis (2024) emphasised how AI-driven people analytics match hiring choices with organisational goals and long-term personnel planning.

An especially pertinent context for researching AI adoption in hiring is the IT industry. Talent shortages, skill mismatches, and high hiring volumes are ongoing problems for IT organisations. According to Venkateshwaran (2025), AI technologies are particularly useful in IT hiring since they make it possible for businesses to effectively find specialised technical abilities. According to the study's findings, AI supports strategic workforce planning while increasing hiring accuracy.

AI Technologies Used in Recruitment

AI's integration into HR tasks has accelerated due to digital transformation. Technology-driven recruiting greatly enhances applicant experience and selection accuracy, according to Resende et al. (2023). The importance of digital innovation in contemporary talent acquisition tactics was highlighted in their comprehensive review. According to Vieira et al. (2024), digital recruitment platforms are crucial for drawing in younger workers, especially those from Generation Z who favour technology-enabled interactions.

Scholarly interest has also been drawn to AI's involvement in organisational decision-making. AI's impact on sourcing, screening, and applicant selection procedures was studied by Sharma and B. (2025). According to their research, AI helps make more objective and well-informed employment decisions by analysing large datasets and spotting patterns that are beyond human comprehension. Nonetheless, the authors stressed the continued need of human judgement and advised against relying too much on automation.

Numerous research support a hybrid strategy that blends human knowledge with AI skills. In their investigation of recruiting experts' viewpoints, Amisha and Gupta (2025) discovered a substantial preference for combining AI with human decision-making. According to the respondents, human recruiters offer empathy, contextual understanding, and ethical judgement, but AI improves speed and accuracy. According to this viewpoint, AI should serve as a tool for decision-making rather than taking the position of humans entirely.

AI in hiring seems to have a bright future, but it must be managed carefully. Chauhan and Tyagi (2025) emphasised new prospects including better decision assistance, customised hiring experiences, and increased organisational effectiveness. But they also noted the dangers of algorithmic bias, over-automation, and resistance to technological development. The necessity of balanced implementation tactics is highlighted by their findings.

Overall, research shows that AI has revolutionised hiring and selection by increasing productivity, decreasing manual labour, boosting candidate-job matching, and assisting with data-driven decision-making. But issues with justice, openness, privacy, and moral leadership continue to be major obstacles. Studies already conducted repeatedly show that organisations must strike a balance between technology innovation and human oversight in order to successfully implement AI. Even while AI has significant advantages for hiring in IT firms, especially in talent-rich regions like Chennai, more study is required to fully comprehend its long-term effects on applicant experiences, organisational success, and hiring quality.

Research Gap

Numerous studies have demonstrated artificial intelligence's potential to increase hiring efficiency, lower recruitment costs, and improve candidate-job matching, making it an increasingly significant tool in recruitment and selection processes. AI applications in HRM have been thoroughly studied in the literature, with particular attention paid to chatbots, applicant tracking systems, automated

resume screening, and predictive analytics. There are still a number of research gaps, though.

First, the majority of research has been done in industrialised nations and multinational corporations, which has limited our knowledge of AI adoption in India. Second, whereas earlier studies have concentrated on AI's technological potential, comparatively few have looked at how recruiters and employees view its efficacy and fairness. Third, despite Chennai being one of India's main centers of technology, very little empirical study has been done specifically in the city's IT sector. Fourth, current research frequently highlights organisational advantages while focusing less on problems like algorithmic bias, transparency, moral dilemmas, and data privacy.

Additionally, there aren't many thorough studies that assess recruiting quality, cost effectiveness, candidate experience, fairness, and recruitment efficiency all at once in AI-enabled recruitment platforms. In order to close these gaps, this study looks at how AI affects hiring and selection procedures in Chennai's IT companies and evaluates the advantages and difficulties of implementing it.

Research Methodology

Research Design

Research methodology refers to the systematic process adopted to collect, analyze, and interpret data for achieving the objectives of a study. The present study examines the impact of Artificial Intelligence (AI) on recruitment and selection processes in IT companies in Chennai. The methodology provides a framework for gathering reliable information regarding the effectiveness, efficiency, and challenges associated with AI-driven recruitment practices.

The study adopts a descriptive research design. Descriptive research is appropriate because it helps in understanding the perceptions and experiences of respondents regarding the use of AI in recruitment and selection.

Research Objectives

- The study was guided by the following objectives
- To study the role and impact of Artificial Intelligence in the recruitment and selection process in the IT sector.
- To understand the concept and applications of Artificial Intelligence in HR recruitment and selection.
- To identify the various AI tools and technologies used by IT companies for hiring.
- To examine the role of AI in resume screening, candidate sourcing, interviewing, and selection.
- To study the benefits of using AI in recruitment and selection for IT organizations.
- To identify the challenges and limitations of implementing AI in HR recruitment.
- To suggest measures for effective implementation of AI in recruitment and selection in the IT sector.

Research Framework

The conceptual framework illustrates the relationship between Artificial Intelligence-based recruitment practices and recruitment outcomes in IT companies.

Independent Variables

- Automated Resume Screening
- AI-Based Candidate Sourcing
- Chatbots and Virtual Assistants
- Predictive Analytics
- AI-Based Assessments and Interviews
- Applicant Tracking Systems (ATS)

Dependent Variables

- Recruitment Efficiency
- Reduction in Hiring Time
- Cost Effectiveness
- Quality of Hire
- Candidate Experience
- Fairness and Objectivity in Selection

Hypotheses

Based on the literature review and conceptual framework, the following hypotheses were formulated:

H1: Artificial Intelligence has a significant impact on the recruitment and selection process in IT companies in Chennai.

H2: AI significantly improves recruitment efficiency in IT companies in Chennai.

H3: AI significantly reduces the time taken for recruitment and selection**.**

H4: AI significantly reduces recruitment cost in IT companies.

H5: AI significantly improves the quality of candidates selected.

Population and Sample

The population of the study comprises employees, HR executives, recruiters, HR managers, team leaders, and other professionals working in Information Technology (IT) companies located in Chennai. These individuals are directly or indirectly involved in recruitment and selection processes and possess knowledge regarding the application of Artificial Intelligence in talent acquisition practices.

A sample of 50 respondents was selected from various IT companies in Chennai for the purpose of the study. The respondents included HR executives, recruiters, HR managers, team leaders, and employees from different organizational levels. The sample was selected using the convenience sampling technique to collect primary data regarding the impact of Artificial Intelligence on recruitment and selection processes.

Sampling Technique

The study adopted the Convenience Sampling Technique for selecting respondents. Convenience sampling is a non-probability sampling method in which respondents are chosen based on their accessibility and willingness to participate in the study. The researcher collected data from employees and HR professionals working in selected IT companies in Chennai who were readily available and familiar with recruitment and selection practices. This technique was considered appropriate due to time constraints and ease of data collection.

Sources of Data

The study is based on both primary and secondary data.

Primary Data

Primary data for the study were collected directly from respondents through a structured questionnaire. The respondents included employees and HR professionals working in selected IT companies in Chennai. The data gathered provided first-hand information regarding the impact of Artificial Intelligence on recruitment and selection processes. The collected responses formed the basis for analysis and interpretation in the study.

Secondary Data

Secondary data were collected from:

- Research journals
- Academic articles
- Books
- Conference proceedings
- Company reports
- Online databases
- Websites related to Human Resource Management and Artificial Intelligence

Secondary sources provided theoretical foundations and empirical support for the study.

Research Instrument

A structured questionnaire was used as the primary research instrument. The questionnaire was divided into two sections:

Section A: Demographic Information

- Gender
- Age
- Educational Qualification
- Job Role
- Years of Experience

Section B: AI in Recruitment and Selection

- Impact of AI in recruitment
- Recruitment efficiency
- Time reduction
- Cost reduction
- Quality of hiring
- Bias reduction and fairness

Responses were recorded using a Five-Point Likert Scale:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

Statistical Tools Used

The collected data were analyzed using the following statistical tools:

Percentage Analysis

Percentage analysis was used to analyze demographic characteristics and respondents' opinions regarding AI in recruitment and selection.

Formula:

$$\text{Percentage} = \frac{\text{Number of Respondents}}{\text{Total Number of Respondents}} \times 100$$

Weighted Mean Analysis

Weighted Mean was used to determine the overall perception of respondents regarding AI adoption in recruitment.

Formula:

$$\bar{x} = \frac{\sum fx}{N}$$

Where:

- $\bar{X}$ = Weighted Mean
- f = Frequency
- X = Weight assigned to response
- N = Total number of respondents

Chi-Square Test (for Hypothesis Testing)

The Chi-Square test may be used to determine the relationship between demographic variables and perceptions regarding AI-based recruitment.

Formula:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Where:

- O = Observed Frequency
- E = Expected Frequency

Pearson Correlation Analysis

Pearson correlation analysis was employed to examine relationships among variables and test the research hypotheses.

Correlation coefficients range from -1 to +1:

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- 0.00–0.19 = Very Weak
- 0.20–0.39 = Weak
- 0.40–0.59 = Moderate
- 0.60–0.79 = Strong
- 0.80–1.00 = Very Strong

A significance level of 0.05 was used for hypothesis testing.

Scope of the Study

This study focuses on examining the impact of Artificial Intelligence (AI) on recruitment and selection processes in IT companies in Chennai. It evaluates how AI tools influence recruitment efficiency, hiring time, cost reduction, quality of hiring, and bias reduction. The study is based on the perceptions of 50 respondents working in IT organizations. The findings aim to provide insights into the benefits and challenges of AI-driven recruitment practices and support organizations in improving talent acquisition strategies.

Limitations of the Study

The study has several limitations:

- The study is limited to IT companies located in Chennai.
- The sample size is restricted to 50 respondents.
- The findings are based on respondents' perceptions and opinions.
- Time and resource constraints limited the scope of data collection.
- The study focuses only on recruitment and selection aspects of AI and does not cover all HR functions.

Results and Statistical Interpretation

Overall Results of the Study

The study examined the impact of Artificial Intelligence (AI) on recruitment and selection processes in IT companies in Chennai. Responses from 50 participants indicate that AI has a generally positive influence on recruitment efficiency, hiring speed, quality of hiring, and bias reduction, although opinions regarding cost reduction were comparatively mixed.

Demographic Profile of Respondents

The demographic analysis revealed that the majority of respondents were female (56%), below 25 years of age (50%), postgraduates (44%), and possessed 1–3 years of work experience (38%). These characteristics indicate that the respondents are largely young professionals familiar with digital technologies and modern recruitment practices.

Statistical Interpretation of Key Findings

Impact of AI on Recruitment and Selection

More than half of the respondents (54%) agreed or strongly agreed that AI plays an important role in modern recruitment processes, while only 18% disagreed. This indicates a positive perception of AI adoption in recruitment activities.

Similarly, 54% of respondents agreed that AI improves the overall effectiveness of recruitment and selection processes, demonstrating confidence in AI-enabled hiring systems.

The findings also reveal that respondents perceive AI as a useful decision-support tool. A considerable proportion agreed that AI helps organizations make better hiring decisions and enhances transparency in recruitment practices.

Interpretation:

AI significantly improves recruitment efficiency through automation of repetitive tasks such as resume screening, candidate filtering, and application management. The technology enables HR professionals to process larger applicant pools with greater speed and accuracy.

Time Reduction

The findings indicate that Artificial Intelligence (AI) plays a significant role in reducing the time required for recruitment and selection activities.

A majority of respondents agreed that AI substantially decreases the time taken to screen resumes by automating the initial evaluation process. Respondents also believed that AI speeds up candidate sourcing by efficiently identifying and matching potential applicants with job requirements.

Furthermore, many participants agreed that AI-assisted interviews, chatbots, and automation tools help accelerate various stages of the hiring process.

Overall, respondents perceived that AI contributes to reducing the entire hiring cycle time, enabling organizations to recruit suitable candidates more quickly and efficiently.

Interpretation:

The results indicate that AI effectively streamlines various stages of recruitment, leading to faster talent acquisition. Reduced hiring time helps organizations fill vacancies quickly and maintain operational efficiency.

Cost Reduction

The findings regarding cost reduction present a mixed perspective. The largest proportion of respondents disagreed that AI significantly reduces recruitment advertising costs, indicating skepticism about its immediate financial benefits in this area.

Similarly, respondents expressed largely neutral opinions regarding AI's ability to lower operational hiring costs and reduce dependency on external recruitment agencies. Despite these reservations, many participants agreed that AI offers substantial long-term cost benefits to organizations.

Although the implementation of AI systems may involve significant initial investments in technology, infrastructure, and training, respondents believe that the resulting improvements in efficiency, productivity, and

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recruitment effectiveness can generate long-term cost savings.

Interpretation:

While AI may require significant investment in software, infrastructure, and training, respondents believe that long-term gains in efficiency and productivity can offset these costs. Immediate cost savings are not yet strongly evident to many organizations.

Quality of Hiring

The study revealed a generally positive perception regarding the contribution of Artificial Intelligence (AI) to hiring quality. Most respondents agreed that AI assists organizations in selecting candidates who are best suited for specific job roles by effectively matching skills, qualifications, and experience with job requirements.

Respondents also believed that AI improves employee-job fit, thereby enhancing the likelihood of successful recruitment outcomes.

Although some participants remained neutral regarding the quality of shortlisted candidates and AI's ability to reduce wrong hiring decisions, the overall pattern of responses indicated a favorable attitude toward the role of AI in improving the quality and effectiveness of hiring decisions

Interpretation:

While AI may require significant investment in software, infrastructure, and training, respondents believe that long-term gains in efficiency and productivity can offset these costs. Immediate cost savings are not yet strongly evident to many organizations.

Bias Reduction and Fairness

One of the most significant findings of the study relates to the role of Artificial Intelligence (AI) in reducing bias during recruitment and selection. A majority of respondents agreed that AI helps minimize human bias by applying standardized evaluation criteria and objective assessment methods throughout the hiring process. Respondents also believed that AI contributes to more objective decision-making and promotes fair candidate evaluation by focusing on qualifications, skills, and job-related competencies rather than personal preferences. However, a considerable number of respondents remained neutral regarding fairness issues, indicating some uncertainty about the ability of AI systems to eliminate bias and ensure equitable recruitment outcomes.

Interpretation:

The findings suggest that AI has the potential to enhance fairness and consistency by applying standardized evaluation criteria. However, concerns regarding algorithmic bias and transparency may explain the neutral responses observed among some participants.

Hypothesis Result

Null Hypothesis (H_0)

There is no significant impact of Artificial Intelligence on recruitment and selection processes in IT companies.

Alternative Hypothesis (H_1)

There is a significant impact of Artificial Intelligence on recruitment and selection processes in IT companies.

Decision

Based on the percentage analysis and the predominance of positive responses across recruitment efficiency, time reduction, quality of hiring, and bias reduction dimensions, the findings support the alternative hypothesis.

Conclusion of Hypothesis Testing

H_1 is accepted and H_0 is rejected.

The study concludes that Artificial Intelligence has a significant positive impact on recruitment and selection processes in IT companies in Chennai.

Discussion

The impact of artificial intelligence (AI) on hiring and selection procedures in Chennai-based IT organisations was investigated in this study. The results show that AI has a good impact on hiring speed, quality of hiring, bias reduction, and recruitment efficiency. However, respondents' opinions on AI's potential to lower recruitment expenses were divided. These results are mostly in line with earlier studies on AI-enabled hiring and human resource management.

According to the study, the majority of participants think artificial intelligence (AI) is crucial to contemporary hiring procedures and enhances their overall efficacy. This result corroborates the findings of Aksoy (2023), who stated that AI greatly improves HR functions by automating repetitive hiring tasks and enhancing decision-making skills. In a similar vein, Singh (2025) came to the conclusion that AI increases hiring efficiency through data-driven hiring decisions, automated screening, and candidate engagement. AI is increasingly seen as a useful recruitment tool in the IT industry, according to the respondents' favourable assessment.

The study's key conclusion is that AI increases hiring effectiveness by lowering manual labour and facilitating quicker candidate shortlisting. This outcome is in line with research by Nababan et al. (2024), who found that AI increases the efficacy of hiring through automated applicant sourcing, resume screening, and communication management. Similarly, Bhivgade and Khaire (2025) discovered that AI greatly increases HR efficiency by automating tedious jobs and freeing up recruiters to concentrate on strategic endeavours. The current analysis verifies that Chennai's IT enterprises are reaping comparable advantages from the use of AI.

The results also show that AI helps save a significant amount of time while hiring. Respondents concurred that AI shortens the hiring cycle overall, speeds up applicant sourcing, and decreases the time needed for resume screening. These results corroborate the findings of Tuttle and Critchlow (2025), who noted that by swiftly and

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precisely analysing enormous applicant pools, AI-driven recruitment systems significantly cut time-to-hire. In a similar vein, Frazzetto et al. (2025) noted that machine learning algorithms increase hiring speed without sacrificing selection quality. AI's efficacy in expediting hiring procedures is demonstrated by the concordance between earlier research and the present findings.

In terms of hiring quality, most respondents concurred that AI enhances employee-job fit and assists companies in finding people most suitable for job tasks. This result is consistent with Venkateshwaran's (2025) discovery that AI improves candidate-job matching and raises the calibre of hiring decisions in IT firms. Similarly, Pandey (2025) found that by aligning competencies with organisational needs, AI-driven screening systems and predictive analytics increase the precision of applicant selection. The results imply that AI helps improve recruiting outcomes by enabling more impartial and data-driven evaluations.

The study also discovered that AI encourages impartial hiring decision-making and lessens human prejudice. The majority of respondents concurred that the use of standardised evaluation criteria by AI leads to more equitable employment processes. These results corroborate the findings of Sholikhah et al. (2025) and Zhang et al. (2025), who came to the conclusion that AI can enhance fairness in hiring procedures and lessen subjective prejudice. Additionally, Acikgoz et al. (2020) stressed that candidates' adoption of AI-enabled recruiting systems depends on their perceptions of fairness. Respondents' favourable opinions point to an increasing level of trust in AI's capacity to assist impartial hiring decisions.

But the study also found that a sizable percentage of respondents had neutral opinions about openness and fairness. This result is consistent with the concerns raised by Mujtaba and Mahapatra (2024), who cautioned that if AI systems are taught on discriminating information, they may inadvertently replicate historical prejudices. In a similar vein, algorithmic bias, accountability, and transparency were noted by Hunkenschroer and Luetge (2022) as the main ethical issues with AI-based hiring. As a result, although respondents recognise the advantages of AI, they also seem to be cognisant of the possible dangers of automated decision-making.

The findings regarding cost reduction were less conclusive. Many respondents disagreed that AI significantly reduces recruitment advertising costs, and opinions on operational cost savings remained mixed. This contrasts partially with the findings of **Chauhan and Tyagi (2025)** and **Aksoy (2023)**, who argued that AI reduces recruitment costs through automation and process optimization. A possible explanation is that many organizations incur substantial initial investments in AI software, infrastructure, training, and system integration. Consequently, immediate cost benefits may not be visible to all organizations despite potential long-term savings.

Additionally, the study shows that respondents are aware of the long-term organisational advantages of implementing AI. This result is in line with Bursell and Roumbanis' (2024) Resource-Based View (RBV), which contends that AI-enabled hiring systems can develop into key organisational resources that improve workforce quality and competitive advantage. In a similar vein, Allal-Chérif, Aránega, and Sánchez (2021) discovered that AI helps firms find and keep top talent from a variety of labour markets.

The fact that most respondents favour AI as a decision-support tool rather than as a whole substitute for human recruiters is another significant finding. This result is consistent with Hewage's (2023) findings that HR professionals are at ease utilising AI in the sourcing and screening phases but are wary about depending only on AI for interviews and hiring choices. Similarly, Amisha and Gupta (2025) discovered that hiring managers favour a hybrid approach that blends human judgement, empathy, and contextual awareness with AI efficiency. The significance of preserving human control in AI-enabled hiring systems is emphasised by the current study.

Overall, the results of this study provide compelling evidence for the body of research on AI in hiring and selection. The findings demonstrate that AI improves candidate-job matching, shortens recruiting times, increases recruitment efficiency, and supports objective decision-making. However, issues with implementation costs, justice, ethical governance, and openness are still pertinent. Therefore, companies must strike a balance between responsible human oversight and technical innovation in order to successfully implement AI in recruitment. The results are especially important for IT firms in Chennai, where the need for clever and effective hiring practices is growing due to the rivalry for qualified workers.

Theoretical Implications

The study's conclusions add to the expanding corpus of information on artificial intelligence (AI) in HRM, especially as it relates to hiring and selection. By showing how AI technologies affect hiring quality, recruitment efficiency, time reduction, and bias minimisation inside IT organisations, the study expands on current theoretical knowledge.

First, the study backs up the Technology Acceptance Model (TAM), which postulates that people are more likely to adopt a technology if they think it is practical and simple to use. AI is becoming more widely acknowledged as a useful tool in talent acquisition, as evidenced by respondents' favourable opinions of its capacity to increase recruitment effectiveness. The results support the claim that adoption of AI-based hiring systems is highly influenced by perceived usefulness.

Second, the study advances the Resource-Based View (RBV) Theory, which views organisational competencies and resources as sources of competitive advantage. Compared to traditional recruitment techniques, AI-powered recruitment tools can be seen as strategic organisational resources that help businesses find and attract top people more quickly. The results show that AI improves workforce acquisition capacities, enhancing competitiveness and long-term organisational success.

Third, the study adds to the body of knowledge regarding data-driven HRM decision-making. The findings show that AI enhances candidate-job matching, facilitates objective assessments, and helps recruiters make well-informed hiring decisions. This bolsters earlier theoretical claims that technology-based hiring practices can improve

the calibre of human resource decisions and lessen subjectivity.

Fourth, the finding adds to the growing conversation on ethical AI and algorithmic justice. Although most respondents felt that AI lessens human prejudice, some neutral answers point to ongoing worries about fairness and transparency. This result lends credence to theoretical viewpoints that emphasise AI should supplement human judgement in hiring decisions rather than take its place.

Lastly, the study offers empirical data from the Indian IT industry, namely Chennai, where there is still a dearth of research on AI-enabled hiring. As a result, it broadens the geographical and contextual reach of current beliefs about the use of AI in hiring and selection.

Managerial Implications

The findings of this study offer several practical implications for HR managers, recruitment professionals, and organizational leaders seeking to implement AI-driven recruitment systems effectively.

Enhancing Recruitment Efficiency

According to the study, AI greatly increases the effectiveness of hiring by automating repetitive processes like application monitoring, candidate sourcing, and resume screening. AI solutions can help HR managers focus on strategic tasks like workforce planning, corporate branding, and talent engagement by reducing administrative workload.

Reducing Hiring Time

The findings show that AI speeds up the screening and shortlisting of candidates, among other steps of the hiring process. By using AI-powered recruitment platforms, companies may shorten the time it takes to fill open positions and minimise productivity losses brought on by protracted hiring cycles.

Improving Hiring Quality

AI algorithms assist in finding applicants whose credentials and abilities closely match job specifications. Managers may enhance candidate-job matching and raise the probability of successful hiring outcomes by utilising AI-based assessment tools and predictive analytics. Higher worker performance and lower turnover rates may result from this.

Supporting Objective Decision-Making

The findings suggest that AI contributes to more objective recruitment decisions by applying standardized evaluation criteria. HR professionals can use AI-generated insights to support fair and consistent candidate assessments while reducing the influence of unconscious human biases.

Balancing AI and Human Judgment

The study emphasises the significance of retaining human control in hiring decisions, despite AI's many benefits. Managers should use a hybrid approach to hiring, where AI helps with screening and data analysis but humans make the ultimate selections. Concerns about justice, ethics, and contextual judgement can all be addressed with this balancing.

Investing in AI Training and Digital Skills

HR professionals must have sufficient technology expertise and digital capabilities in order to successfully implement AI recruitment solutions. Employers should offer training courses that assist recruiters in comprehending AI tools, interpreting recommendations produced by AI, and effectively managing technology-driven hiring procedures.

Ensuring Ethical and Transparent AI Practices

The study identifies concerns regarding fairness, transparency, and algorithmic bias. Managers should establish clear governance mechanisms to monitor AI systems, conduct regular audits, and ensure compliance with ethical standards and data privacy regulations. Transparent communication regarding AI usage can also improve candidate trust and organizational reputation.

Strategic Workforce Planning

AI-generated recruitment analytics can provide valuable insights into labor market trends, candidate availability, and future skill requirements. Managers can use these insights to develop proactive talent acquisition strategies and strengthen long-term workforce planning initiatives.

Limitations and Future Research

This study offers insightful information about how artificial intelligence (AI) affects hiring and selection procedures in Chennai's IT firms. However, when evaluating the results, some restrictions should be taken into account.

First, only IT firms in Chennai are included in the analysis. As a result, the results might not be entirely applicable to businesses in other areas, sectors, or nations with distinct organisational and technological contexts.

Second, only 50 responders make up the study's comparatively tiny sample size. A larger sample could increase the conclusions' dependability and generalisability, even though the sample offers insightful information.

Third, a structured questionnaire is used to gather respondents' perceptions and opinions, which are the main source of data for this study. As a result, subjective assessments, response biases, and individual experiences may have an impact on the results.

Fourth, the study does not look at how AI affects other HR services like training and development, performance management, employee engagement, and workforce analytics; instead, it focuses exclusively on recruiting and selection functions within HRM.

Fifth, hiring procedures may alter dramatically over time due to the quickly developing nature of AI technologies. As a result, the results reflect the current level of AI use and could need to be reviewed on a regular basis as technology develops.

Lastly, the study does not assess the technical efficacy of certain AI platforms or tools for hiring. Rather, it looks at respondents' general opinions about AI-enabled hiring platforms.

Future Research Directions

The findings and limitations of the present study suggest several opportunities for future research.

First, future studies may be conducted with larger sample sizes involving respondents from multiple cities and states to improve the generalizability of findings. Comparative studies between different regions can provide broader insights into AI adoption in recruitment.

Second, researchers may extend the study to industries other than the IT sector, such as banking, healthcare, manufacturing, retail, and education. Such studies would help determine whether the impact of AI differs across sectors with varying workforce requirements.

Third, future research can examine the long-term effects of AI-based recruitment on employee performance, job satisfaction, employee retention, and organizational productivity. This would provide a more comprehensive understanding of AI's contribution to organizational success.

Fourth, qualitative research methods such as interviews, focus groups, and case studies may be employed to gain deeper insights into the experiences of recruiters, HR managers, and job applicants regarding AI-enabled hiring processes.

Fifth, future studies may focus on ethical issues associated with AI recruitment, including algorithmic bias, transparency, accountability, explainability, and data privacy. Such research can help organizations develop responsible AI governance frameworks.

Sixth, researchers may investigate the effectiveness of specific AI technologies such as Applicant Tracking Systems (ATS), machine learning algorithms, predictive analytics, chatbot-based recruitment, and video interview analysis tools.

Finally, comparative studies between traditional recruitment methods and AI-assisted recruitment systems can provide a clearer understanding of the advantages, limitations, and organizational outcomes associated with each approach.

Conclusion

Artificial Intelligence has emerged as a transformative force in modern recruitment and selection practices, particularly within the Information Technology sector. The present study examined the impact of AI on recruitment and selection processes in IT companies in Chennai and analyzed respondents' perceptions regarding recruitment efficiency, time reduction, cost reduction, quality of hiring, and bias reduction.

The findings reveal that AI significantly enhances recruitment efficiency by automating routine tasks such as resume screening, candidate sourcing, and application management. Respondents generally agreed that AI reduces hiring time, improves candidate-job matching, and supports objective decision-making. The study also found that AI contributes to reducing human bias and promoting fairness in recruitment processes through standardized evaluation mechanisms.

Although respondents acknowledged the benefits of AI, opinions regarding cost reduction were relatively mixed. Many participants believed that while AI may require substantial initial investment, it offers long-term organizational benefits through improved efficiency and productivity. The findings further indicate that concerns regarding transparency, ethical considerations, data privacy, and algorithmic bias remain important challenges that organizations must address when implementing AI-driven recruitment systems.

The study supports the view that AI should function as a strategic decision-support tool rather than a complete replacement for human recruiters. A balanced approach combining technological capabilities with human judgment can help organizations achieve more effective, fair, and responsible recruitment outcomes.

Overall, the study concludes that Artificial Intelligence has a significant positive impact on recruitment and selection processes in IT companies in Chennai. As organizations continue to embrace digital transformation, AI is expected to play an increasingly important role in talent acquisition, workforce planning, and organizational competitiveness. To maximize its benefits, organizations should invest in ethical AI practices, employee training, and continuous monitoring of AI systems while maintaining human oversight in critical recruitment decisions.

The study contributes to the growing body of knowledge on AI in Human Resource Management and provides useful insights for researchers, HR professionals, policymakers, and organizational leaders seeking to leverage AI for effective talent acquisition and management.

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