Transformation Of Talent Acquisition - Evaluating The Impact Of AI-Driven Recruitment Systems And Hiring Trends Of IT Sectors In Banglore

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ABSTRACT:

The study examines the impact of AI enable recruitment practice on hiring efficiency and decision making within in the IT companies operating in Banglore, one of India's leading technology hubs. Data for the study were collected from the HR Professional working in selected IT firm using a structured questionnaire. The study applies quantitative analysis to evaluate the relationship between AI-driven recruitment systems and key recruitment outcomes such as adoption of artificial intelligence,adoption level, candidate quality, and recruitment efficiency.

The findings suggest that AI-based recruitment technologies significantly enhance the speed and accuracy of the hiring process while reducing manual workload for HR professionals. However, concerns related to algorithmic bias, data privacy, and reduced human interaction in recruitment decisions remain important considerations. The study highlights transformation of talent acquisition - evaluating the impact of AI-driven recruitment systems and hiring trends of it sectors in banglore

Overall, this research contributes to the growing literature on the integration of Artificial Intelligence in Human Resource Management and provides insights for organizations seeking to optimize recruitment strategies in the evolving digital workplace. The research methodology presented in the paper is based on the pilot study of the topic.

INTRODUCTION:

In todays busy world artificial intelligence plays a vital role in the process of recruitment to make jobs and tasks easier. This research aims to critically examine how Artificial Intelligence (AI) driven recruitment tools (such as chatbots, resume screening algorithms, predictive analytics, and video-interview scoring systems) are transforming the strategic approach to talent acquisition in India's Information Technology (IT) sector and interview scheduling allowing human resources of professionals to focus on candidate engagement and helps in strategic decision making with discrimination and bias.. It will explore perceptions from multiple stakeholders—recruiters and hiring managers, on the effectiveness, fairness, and outcomes of AI-integrated hiring practices. The process of selection with artificial intelligence that make the human resources life easier and gives ease for selecting the eligible candidates. Some of the process of interview are: preliminary interview • application blank • selection tests • employment interview • checking of references • Physical examination • Final approval., Some of the chatbots specifically used in the process of recruitment :"TalentBot", "RecruitMaster", or "CareerCompass

OBJECTIVES OF THE STUDY:

• To assess the perceived benefits and challenges of AI-based recruitment tools among HR professionals in IT sector.

• To evaluate the impact of AI-driven hiring on candidate quality, hiring time, and organizational outcomes.

• To explore ethical implications and HR's perceptions of fairness in AI-based recruitment.

• To identify how AI adoption in recruitment is shaping strategic HR roles in IT companies.

• To collect recommendations and suggestions of the HR on the implementation and usage of Artificial Intelligence

LITERATURE REVIEW:

Artificial intelligence (AI) plays a crucial role in enhancing the speed, accuracy, and relevance of hiring decisions, directly influencing the quality of hires. By utilizing AI to match candidate skills with job requirements, organizations can better align employee competencies and job demands.Pergantis et al., 2025 many applicants would favor recruitment procedures over which humans judge, particularly for jobs requiring social interaction or creativity. AI carries the perception that it is a replacement for human decisionmaking instead of being a support mechanism, and it is seen as overly rigid or incapable of comprehending the finer nuances of a candidate's background. AI was performed to recover phrases, analyze speech patterns, and classify topical themes using high-level natural language processing, including textbased GPT and Claude models.

Research indicates that AI significantly reduces human errors in the screening and selection processes, thereby enhancing the overall quality of hires (Chen, 2023; Sýkorová et al., 2024) Al tool adoption improves candidate experience, recruiter efficiency, and quality of hire; time-tohire delays negatively affect outcomes. Regression analysis underscores strategic value. {Durga Prasad Repakula, Bharath T.S.., Chethan Raj JIER (2025) Al adoption across HR, development, customer service and strategy leads to faster processes, innovation, improved customer satisfaction and profits. Performance gains mediated by digital transformation and workforce adaptability. {Hemanth J, Lakshminarayana (Vol. 10 No. 4, 2025) Moderate -to-positive attitudes toward Al for efficiency, quality and diversity; ethical concerns (bias, privacy) negatively correlate with adoption. Stress on balancing automation with human judgment and establishing ethical frameworks.

Pooja Hukkeri & Sanjivkumar Al helps balance speed, cost, and quality-but barriers include adoption resistance and lack of technical readiness. (Vol. 49 No. 2, 2025) Gokula Krishnan et al., Bengaluru While Al brings efficiency, the literature heavily emphasizes ethical challenges-fairness, transparency, bias mitigation across utilitarian, justice, and rights frameworks.{ Full Paper: Emerald Insight (2023)} Bersin also emphasized AI's contribution to building diverse and inclusive workforces through unbiased data analysis. Chakraborty et al. (2022) According to Deloitte Insights (2021), organizations implementing the recruitment landscape by automating repetitive tasks like resume screening and scheduling interviews. It highlighted that AI tools can process large datasets quickly, enabling HR teams to focus on decision-making rather than administrative functions Upadhyay et al. (2021) The study emphasized how Artificial Intelligence has revolutionized. The authors found that AI integration leads to greater efficiency and lower hiring costs, particularly in large-scale recruitment environments.

Bersin (2020) Bersin discussed the strategic value of AI in HR, noting that AI helps organizations move beyond reactive recruitment to proactive talent management. AI enables datadriven insights into candidate behaviour, allowing companies to optimize job descriptions, communication, and timing. Dessler (2020) said that AI will continue to repeat decisions taken in the past but it will be simplified with the support of AI-based recruitment tools. Niehueser and Boak (2020) found hat AI improving speed and task efficiency.

Sarah Fister Gale (2019) said that Human Resources Department is a vital part of an organization and it needs technologies like artificial intelligence to be competitive in he different phases of business and therefore the employees and managers in an organization should know about AI. This analysis facilitated clearer

identifications of surfacing concepts of fairness, accountability, auditability, and inclusivity that helped the research discover consistencies and discrepancies across platforms Lin, Y ., & Huang, J. (2022).

Artificial intelligence supports an organization in unbiased decisions, maintaining equality, and helps in handling uncertainties too (Jarrahi, 2018) and also artificial intelligence revamps the organization's culture and brings a digital transformation when it is integrated with the different departments like human resources, finance, operations, marketing, etc., (Shweta Jain, 2017). Christopher McFadden (2019) arugued that AI functionality has proven to be a good benefit in the functioning of on-demand applications like Uber, Ola, Zomato etc. Reddy D (2018) in their research found that artificial intelligence support recruitment activities accurate, cost, and time effective and in maintaining the data effectively. Yusra Qamar et al (2019) said that HR managers need to update their skills and competencies to bring effective technological change and get into the new changes induced by AIenabled HR services.

Owais Ahmed (2018) said that the high amount of time involved in filtering of thousands of CVs and online job-board profiles to select new employees has come to come to an end and old-method of recruitment and human resource processes will be discarded and AI will be the new norm in the future. He further said that said that artificial intelligence increases the productivity of an organization's workforce and how it reduces the workload of the HR manager.

Prasanna Tambe et al (2019) has identified four reasons interms of why: complexity of HR phenomena, data challenges from HR operations, fairness and legal constraints, and employee reactions to AI management. We also recognize the limits of a top-down, optimization approach to HR decisions because of the negative effects it is likely to have on employee behaviour. Strohmeier and Piazza, (2015) said that Human Resource Management (HRM) is one of the functional area that has started to leverage through AI applications and got numerous set of AI usage implications in Human Resource Management (HRM). AI has been successfully implemented in various HRM functions such as Human Resource Performance Evaluation and final selection process (Zhang)

RESEARCH METHODOLOGY:

The study adopts a quantitative research design , utilizing a structured questionnaire to gather data from HR and managers in IT sectors of Banglore. There are structured questionnaires in which we used using5-point Likert scales.200 questionnaire were distributed among the HR and Managers and we received back 175 responses from that after evaluating and screening 161 respondents were finalized. The statistical technique used for the final result evaluation was structural Equation Modeling , SMART PLS and SPSS 3.0.

Target Population	HR & Managers
Sampling Technique	Non Probability sampling – Purposive sampling
Sample Size:	161 RESPONDENTS {DANIEL SOPHER}
Data Collection Tool:	Structured Questionnaire using 5-point Likert scales.
Statistical Techniques:	Descriptive Statistics (mean, SD, skewness, kurtosis) Structural Equation Modeling (SEM) – to test hypothesized relationships, SMART PLS, SPSS 3.0
SAMPLE AREA	IT SECTORS IN BANGLORE

Sample size:

Using this calculator of Daniel Sophier method we finalized 161 samples for the study

Hypothesis:

In total there are13 hypothesis in which 5 are direct hypothesis , 4 are indirect hypothesis and 4 are mediators hypothesis.

H1-There is a significance difference between Ai adoption level and recruitment efficiency

H2-There is a significance difference between Ai adoption level; and satisfactory level among Hr's H3-There is a significance difference between ease of use and recruitment efficiency

H4-There is a significance difference between the ease of use and satisfaction

H5-There is a significance difference perceived bias and recruitment efficiency

H6-There is a significance difference perceived bias and satisfaction

H7-There is a significance difference perceived transparency and recruitment efficiency

H8-There is a significance difference perceived transparency and satisfaction

H9- There is a significance difference satisfaction and recruitment efficiency

H10-AI adoption level has a significance difference between the level of satisfaction and recruitment efficiency

H11- Ease of use has a significance difference between the level of satisfaction and recruitment efficiency

H12-Perceived Bias has a significance difference between the level of satisfaction and recruitment efficiency

H13-Perceived Transparency has a significance difference between the level of satisfaction and recruitment efficiency
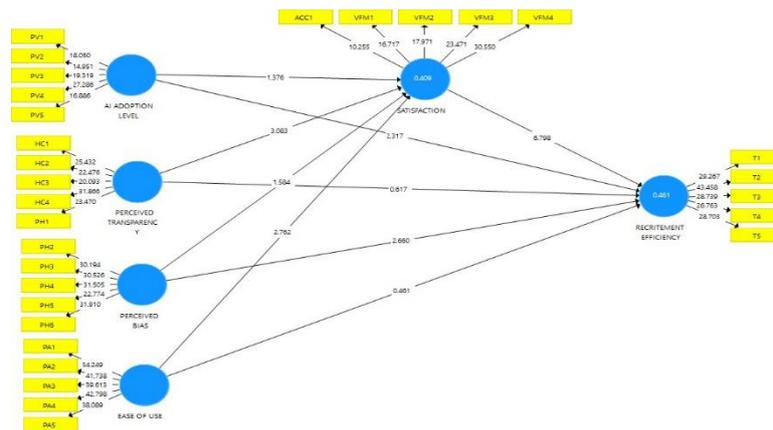
Result:

The cronbach's alpha is more than 0.07 so this passes the reliability test and validity test.The cronbach's alpha is positive.

Construct Reliability and Validity

	Cronbach's Alpha
AI ADOPTION LEVEL	0.772
EASE OF USE	0.909
PERCEIVED BIAS	0.852
PERCEIVED TRANSPARENCY	0.801
RECRITEMENT EFFICIENCY	0.864
SATISFACTION	0.736

Path model :

CONCLUSION:

The integration of Artificial Intelligence into recruitment practices has significantly transformed the way organizations attract, evaluate, and select potential employees. In the IT sector, where the demand for skilled professionals is high, AI-driven recruitment systems help organizations manage large volumes of applications and streamline the hiring process. The findings of this study indicate that AI-based tools improve recruitment efficiency by reducing the time required for screening candidates, enhancing the accuracy of candidate matching, and supporting data-driven decision-making. The study concludes that the objectives framed and the questionnaire framed are suitable for the study. The hypothesis are framed and curated.

In the context of IT companies in Bangalore, the adoption of AI technologies in recruitment has demonstrated considerable benefits for HR professionals and organizations. Automated systems such as applicant tracking systems and AI-based analytics enable recruiters to focus on strategic aspects of talent acquisition while minimizing manual workload.

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