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Research Paper

EFFECTIVENESS OF AI IN RECRUITMENT AND SELECTION PROCESS W.R.T. INFOSYS

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Abstract

The integration of Artificial Intelligence (AI) into the recruitment and selection process has revolutionized traditional hiring practices by enhancing efficiency, accuracy, and fairness. This study explores the effectiveness of AI tools in streamlining candidate sourcing, screening, and evaluation. AI-driven systems such as resume parsers, chatbots, predictive analytics, and machine learning algorithms are increasingly being adopted to identify suitable candidates, reduce hiring time, and minimize human bias. The paper analyzes how AI can improve decision-making by leveraging data-driven insights and enhancing candidate experience through personalized communication. Additionally, the research evaluates potential challenges including ethical considerations, data privacy concerns, and the risk of algorithmic bias. Through a combination of qualitative and quantitative analysis, this study highlights the transformative role of AI in modern recruitment and proposes best practices for its responsible and effective implementation. The findings indicate that while AI cannot entirely replace human judgment, it significantly augments the recruitment process when integrated thoughtfully.

I.INTRODUCTION

In today's rapidly evolving digital landscape, organizations are increasingly leveraging advanced technologies to streamline and enhance their operational processes. One of the most transformative developments in recent years has been the integration of Artificial Intelligence (AI) into human resource management, particularly in recruitment and selection. Infosys, a

global leader in consulting and IT services, has embraced AI-driven solutions to modernize its talent acquisition strategies. The traditional recruitment process, often criticized for being time-consuming, biased, and inefficient, is undergoing a significant shift. By incorporating AI, Infosys aims to improve candidate sourcing, automate resume screening, and enhance decision-making through predictive analytics and machine learning algorithms. This adoption not only accelerates the hiring process but also ensures better alignment between candidate skills and job requirements.

This study explores the effectiveness of AI in Infosys's recruitment and selection process, evaluating its impact on efficiency, fairness, and overall hiring outcomes. By examining real- world applications and measurable results, this research seeks to understand how AI technologies are reshaping the HR functions of one of the world's leading IT firms. The Infosys recruitment and selection process typically involves an application screening, an online assessment, a technical interview, and an HR interview. The process can take around 4 to 6 weeks.

The project investigates the effectiveness of AI in recruitment and selection, exploring how AI tools impact different stages of the hiring process, from initial sourcing to candidate evaluation. The study aims to determine if AI can enhance efficiency, reduce bias and improve the quality hires while also examining potential challenges. This study seeks to evaluate the effectiveness of AI in the recruitment and selection process at Infosys, examining how AI technologies have transformed traditional hiring practices. The analysis focuses on key metrics such as time-to-hire, cost efficiency, candidate quality, diversity, and user satisfaction among HR professionals and applicants. Furthermore, the study explores how AI contributes to data-driven decision-making and long-term strategic workforce planning.

Definition:

The rapid advancement of technology has fundamentally reshaped how organizations attract, assess, and hire talent. In the face of growing competition for skilled professionals, especially in the IT and consulting sectors, traditional recruitment methods are no longer sufficient to meet the speed, scale, and quality demanded by modern businesses. This has led to an increased reliance on Artificial Intelligence (AI) to optimize the

recruitment and selection process. Infosys, as a global IT services leader, operates in a highly dynamic environment that requires continuous innovation not only in service delivery but also in talent acquisition. Given the company's scale and the volume of hiring it undertakes each year, there is a critical need to explore efficient, accurate, and scalable hiring methods. AI has emerged as a key enabler in this transformation, but despite its growing adoption, there remains limited empirical analysis of how effectively it has been implemented and what tangible benefits it offers.

Research Methodology:

1.Type of Research: This study is Descriptive in nature, as it involves the usage of descriptive information which is provided by different sources for the purpose To describe how AI is currently being used in recruitment and selection.

2. Data Collection: Primary Data: Primary data is gathered from direct observation or data personally collected. It refers to such data which is collected for specific purpose. For the project primary data were collected mainly through survey method, using the tool Questionnaire. Secondary Data: Secondary data is the data which is collected or gathered from different sources like text books, magazines, journals, dissertions, websites of the organization.

3.Period of the study: This study covers the period of FY2024 to FY2025, to gather the required information required for the project.

4. Sampling technique: A purposive sampling method is adopted focusing only on Effectiveness of AI in recruitment and selection process in Infosys.

5. Sample size: A sample of 100 respondents both male and female are gathered with the help of Questionnaire.

II.LITERATURE REVIEW

The integration of Artificial Intelligence (AI) into human resource management, particularly in recruitment and selection, has transformed traditional hiring practices. Organizations leverage AI tools for candidate screening, resume parsing, interview scheduling, and even decision-making in talent acquisition. This review synthesizes the current state of literature to evaluate the effectiveness of AI in these domains.

a. Efficiency and Speed

• Sivathanu & Pillai (2019) argue that AI systems significantly reduce time-to-

hire by automating repetitive tasks such as resume screening and scheduling.

• Upadhyay & Khandelwal (2018) note that chatbots and intelligent systems can handle large volumes of applications swiftly, improving candidate experience and recruiter productivity.

b. Cost Reduction

• Black & van Esch (2020) demonstrate that AI reduces hiring costs by minimizing the need for large HR teams and improving sourcing through algorithmic precision.

• LinkedIn Talent Solutions (2021) reports that organizations using AI in recruitment see up to 35% cost savings in their hiring processes.

c.Bias Reduction and Standardization

• Binns et al. (2018) suggest that properly trained AI systems can help reduce unconscious human bias by applying consistent evaluation criteria.

• Raghavan et al. (2020), however, caution that biased training data can reinforce existing inequalities, emphasizing the need for ethical AI design.

d. Algorithmic Bias

• O'Neil (2016) in "Weapons of Math Destruction" provides early warnings about how AI can perpetuate discrimination due to biased data inputs.

• Cowgill et al. (2021) found that AI tools used in resume screening can inadvertently disadvantage certain demographic groups if not regularly audited.

e. Transparency and Explainability

• Tambe et al. (2019) stress the "black-box" nature of many AI models, which makes it difficult for HR professionals to understand or justify hiring decisions.

• Legal concerns arise due to lack of clarity in how decisions are made, particularly under equal employment opportunity laws (Binns et al., 2018).

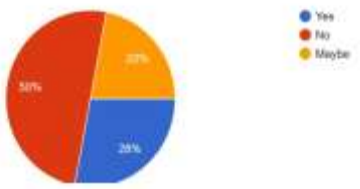
f. Candidate Perception

• Langer et al. (2021) discovered that candidates may perceive AI-driven processes as impersonal and dehumanizing, which can negatively affect employer branding.

III.DATA ANALYSIS AND INTERPRETATION

1. Do you have concerns about data security and privacy when using AI in recruitment

Concern	Number of respondents
Yes	28%
No	50%
Maybe	22%

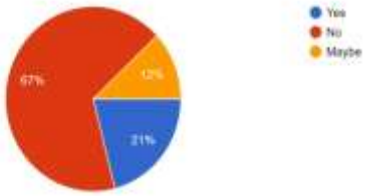


INTERPRETATION:

From the above data we can conclude that 28% of candidates are concerned regarding data security and privacy and 50% of respondents have no concern whereas 22% of respondents are not sure.

2.Do you believe that AI can potentially introduce bias in recruitment process

Bias	Number of respondents
Yes	21%
No	67%
Maybe	12%

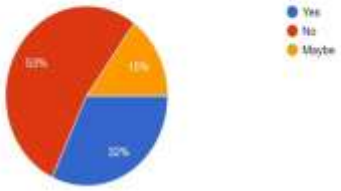


INTERPRETATION:

From the above data we can say that 21% of respondents agree that there will be potential bias in recruitment process and 67% of respondents said No whereas remaining 12% respondents said maybe.

3.Do you feel that AI driven recruitment is more useful and efficient process

Useful	Number of respondents
Yes	32%
No	53%
Maybe	15%

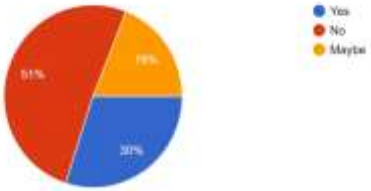


INTERPRETATION:

From the above data we can conclude that 32% of overall respondents think that AI driven recruitment process is mire useful and efficient and 20% of respondents said No whereas the remaining 15% of respondents are not sure whether they are useful are not.

4. Do you believe AI enhances the candidate experience during recruitment

Enhances	Number of respondents
Yes	30%
No	51%
Maybe	19%



INTERPRETATION:

From the above data we can interpret that 30% of respondents agreed that AI enhances the candidate experience and 51% of respondents are not agreed and

the remaining 19% of respondents are not sure.

IV.FINDINGS

- The total responses are of 100
- 49% of responses are from male and the remaining 50% of responses are from female
- The responses are collected from the students and also from those who are working according to their Qualification
- The responses are mainly collected from those who are currently doing jobs whether full time, part time or permanent
- Many respondents search for jobs from different sources like employee referral, campus recruitment, advertisement, job portals and recruitment agencies
- There are different tests conducted by different companies like written test, Aptitude, group discussion, personal interview and many other according to the companies
- The candidate has to go through different stages inorder to get selected in particular company
- Many companies will take technological support for recruiting
- 49% of companies provide clear understanding of the positions, objectives, requirements and specialization
- Some respondents have some concerns regarding about data security and privacy when using AI
- 29% of respondents are aware of recruitment process in their company
- 21% of respondents believe that AI can potentially bring bias in recruitment process
- Among total respondents 29% of respondents are encountered

V.CONCLUSION

An optimized recruitment and selection process is crucial for organizational success—it attracts a diverse talent pool, enhances candidate fit, and drives long-term performance. The strategic integration of AI and automation amplifies this by significantly accelerating ,screening, scheduling, and candidate matching, without compromising quality . However, true effectiveness hinges on balancing efficiency with ethics and human insight. Organizations must ensure transparent, fair, and accountable AI deployment—guarding against bias, protecting candidate privacy, and

maintaining human oversight . Embedding structured interviews, competency assessments, and validated metrics ensures decisions are reliable, legally defensible, and aligned with job needs.

By weaving these elements together—strategic sourcing, transparent AI, structured selection, and candidate-centric design—you build a hiring process that is efficient, equitable, and empowering for both your people and your performance. Indian recruiters are now shifting 70% of budgets into AI-driven tools, emphasising quality hiring over rapid placements. Capita's upcoming AI system will automate early-stage recruitment—cutting time from weeks to hours—while letting humans steer the selection process . While AI smartly screens resumes or assesses coding skills (as seen at Meta), real hiring strength still lies with human judgment—ensuring cultural fit, ambition, and emotional intelligence. AI's power must be balanced with responsible use—frameworks from the EU and FTC demand bias audits, clear candidate disclosures, and strong data privacy standards. Chatbots, instant updates, and personalized communication are not just features—they're expectations. Efficient, transparent processes reinforce your employer brand.

VI.REFERENCES

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