

AI in Talent Acquisition - Redefining Recruitment and HR Practices

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ABSTRACT:

In today's digital Era with rapid proliferation of artificial intelligence, the organisation are slowly adopting to the new mechanism in the recruitment process which offers and improvement in efficiency, accuracy and inclusivity. The study aims to analyse the perceived benefit and challenges of AI in talent acquisitions. Study deployed primary method to collect the data from 46 HR professionals by interview them. Research revealed that there is a noteworthy reduction in the time taken to fill the position from 4.05 weeks to 2.96 weeks post implementation of AI, additionally there is a strong perfect for co - relation $r = 0.859$ was found between the use of Artificial Intelligence in the recruitment and job satisfaction among the HR professionals. The finding highlights the transformative role of AI in enhancing recruitment efficiency and job satisfaction by highlighting ethical consideration to leverage AI technology in talent acquisition.

Keywords: Artificial Intelligence, Recruitment, Talent Acquisition

Introduction:

With rapid proliferation in the growth of technology and internet the process of recruitment has undergone significant change. The deployment of AI has revolutionized the talent acquisition strategies in today's market. The time and effort spent to scout for the best talent has escalated as firm negotiate the complexity of the digital era, necessitating the need and requirement for creative solution to expedite the recruitment process and quickly discover the most suitable individuals. AI Powered talent acquisition is changing the landscape of recruitment process by providing previously unheard-of possibilities to improve the efficacy, precision and efficiency of Hiring. Artificial Intelligence is a transforming and evolving force that is reshaping how we live work and interact. It involves creation of Machines capable of performing tasks that typically require and represents human intelligence. In today's world it has been an emerging and dynamic application of modern technology where it can be applied to various fields indicating the advancement of human intelligence.

In today's innovative and rapidly changing world along with technology AI has acquired its top position in various fields from Science to normal life. With regard to Human Resource Management, it's application has been adversely impacted in many different ways leading Innovation and intelligent works.(R. Vedapradha et al)

Talent Acquisition is defined as the hunting of best employees in the HR process through various methods and techniques aligned with companies' broader business goals and objective, it's major aim is to acquire long term talented and suitable human resources for the very definite positions. AI technology in the field of HRM as a part of talent acquisition has made an exemplary impact as it's wide spread usage can be attributed to its several advantages which facilitates the overall hiring process as more easier, accurate, definite and efficient Varun Chand Hemachandran et al). Many HR's in the top companies have adopted these modern innovative tools in their recruitment process which even makes their job more easy and efficient and in return which also adds up to the value

of the organisation.(Vidura Perera)

In addition to efficiency gains, AI in talent acquisition introduces predictive analysis, enabling organisation to make data driven decisions. AI algorithms can forecast and predict future talent needs, find potential candidates, even predict candidate success based on historical performance indicators.

Review Of Literature:

Artificial Intelligence (AI) in the process of talent acquisition has become a disruptive force that is changing conventional hiring practices in a number of industries. Numerous studies give thorough summaries of AI's contribution to improved recruiting, providing information for both scholarly study and real-world use.

Hemachandran, V.C., Kumar, K.A., Sikandar, S.A., Sabharwal, S., & Kumar, S.A. (2023) emphasize how crucial artificial intelligence is to enhancing productivity and decision-making in the talent acquisition process. Recruiters may streamline procedures more effectively by using AI technologies, which automate tedious tasks, analyze applicant data, and provide data- driven insights for decision making. By finding the greatest candidate for the job, this not only saves time and effort but also improves the quality of hiring. With an emphasis on the IT industry, Monika, L. & Senthilmathi, M. (2023) show how the use of AI in talent acquisition improves hiring practices by automating repetitive tasks and changing the sourcing, assessment, and hiring processes. This results in more effective decision-making in the exceptionally flexible IT recruitment environment. According to Perera, V. (2024), AI promotes a strategic approach to hiring by striking a balance between technology prowess and human judgment. Even though AI can automate a lot of the hiring process, human judgment must still be used to make the final selection and provide a satisfying recruiting experience for candidates. It is believed that this strategic mix is essential to gaining a sustained competitive edge in luring and keeping outstanding personnel. According to Vedapradha, R., Hariharan, R., Praveenraj, D.D.W., Sudha, E., & Ashok, J. (2024), there is a significant positive association between the real-world use of AI in hiring and the level of awareness and acceptance of the technology. According to their findings, using AI gives hiring procedures more efficacy and efficiency, giving businesses a competitive advantage in managing personnel. They come to the conclusion that AI gives talent management methods a competitive edge in addition to being an efficient tool.

Statement of Problem:

In India, the recruitment landscape has undergone a fast pace technology transformation with its integration of artificial intelligence into human resource recruitment process. The Indian job market is also in line with global job market trends towards adopting and using artificial intelligence in the recruitment for hiring the right talent at right time. According to the report of NASS COM (2022) artificial intelligence industry in the country is expected to grow at compounded annual growth rate of 20.2% which is approximately around INR 79.43 lakhs crore to the country's economy by 2035.

Despite the stronger usage of artificial intelligence, the Indian HR professionals are still optimistic and has sense of mixed opinion about the adoption of AI. While there is a certainty that AI can eliminate a repetitive task and provide unbiased assessment for candidates but there are concerns which revolves around the transparency, ethical use and replacement of human job. The present study focuses on studying how artificial intelligence is reshaping the talent acquisition by identifying and studying the pursuit benefits and challenges and forecasting future trends.

Research questions

1. How artificial intelligence award in talent acquisition in Indian recruitment scenario?
2. What are the benefits and challenges of using artificial intelligence for candidate assessment in Indian organisation?
3. Does the use of AI in recruitment lead to a significant reduction in time to fill the position in Indian companies?
4. How does the adoption of AI in the recruitment impact the job satisfaction of Indian HR professionals?

Objectives:

- To understand the concept of AI and it's evolution in talent acquisition.
- To explore the process of AI in recruitment process.
- To identify the perceived benefits and challenges of using AI for candidate assessment.
- To understand the future expectations of HR professionals with regard to role of AI in talent acquisition.

Limitations

There are several limitations to the study. Firstly, due to time constraint researcher could only interview 46 HR Professionals. This Sample may not be the representative of entire Indian HR Professional workforce which potentially limits the generalisation of finding in the study. As Research relies on the data which is collected from HR Professionals which is subjected to bias and inaccurate as it is the opinions shared by HR Professionals.

Research Methodology

The Study deploys both primary and secondary data to analyse how AI is beneficial in talent acquisition. 46 HR Professionals were interviewed to collect the data by using snowball sampling technique to ensure the HR Professionals with relevant experience in AI Implementation in recruitment process were included in the Study. The Collected data was analysed using SPSS Software to perform paired sample T-Test, Pearson Co-relational analysis and Binomial test. The Study followed all the ethical guidelines by maintaining the confidentiality of the participants responses

Hypothesis

H1: The company that utilizes AI in recruitment experience a reduction in time to fill positions.

H2:HR Professionals believe that AI can reduce Bais in the recruitment process

H3: Use of AI in recruitment is positively correlated with HR professionals job satisfaction

H1: The company that utilizes AI in recruitment experience a reduction in time to fill positions.

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean

Pair 1	What is the average time taken to fill a position before implementing AI?	4.05	46	1.007	.149
	What is the average time taken to fill a position after implementing AI?	2.96	46	1.095	.161

Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	What is the average time taken to fill a position before implementing AI? - What is the average time taken to fill a position after implementing AI?	1.09	1.500	.221	0.221	0.647	1.535	4.932	.000

Interpretation

Paired sample T-Test was executed in order to evaluate whether the company using AI will experience the reduction in time to fill the position. The result Showed that there is significant decrease in time consumed in filling new positions before ($M=4.05$ $SD=1.007$) to after ($M=2.96$ $Sd=1.095$) $t(4,93)=1.535$, $p.000$ (two tailed). The Mean increase in test is 1.09 with 95% confidence level with interval ranging from 0.221 to 0.647. This results clearly indicates that implementation of AI significantly reduces the time to fill position. Thus, the hypothesis (H1) that the company experiences a reduction in time to fill positions after utilizing AI in recruitment is supported by the data.

H2:HR Professionals believe that AI can reduce Bais in the recruitment process**Binomial Test**

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Do you believe AI can help reduce bias in recruitment?	Group 1	Yes	37	.80	.50	.000
	Group 2	No	9	.20		
	Total		46	1.00		

Interpretation

Binomial test was done to assess whether HR Professionals believe that AI can reduce bias in the recruitment process. The result indicated that 80% of HR Professionals (n=46) believe that AI can reduce bias in the recruitment Process, which significantly higher than 50% of test proportion($p < .001$). This result shows that hypothesis is supported with HR Professionals believe that AI can reduce Bias in recruitment.

H3: Use of AI in recruitment is positively correlated with HR professionals job satisfaction

Descriptive Statistics

	Mean	Std. Deviation	N
Use of AI in Recruitment	4.33	.668	46
How satisfied are you with your job as an HR professional since implementing AI?	2.33	.753	46

Correlations

		Use of AI in Recruitment	How satisfied are you with your job as an HR professional since implementing AI?
Use of AI in Recruiement	Pearson Correlation	1	.859**
	Sig. (2-tailed)		.000
	N	46	46
How satisfied are you with your job as an HR professional since implementing AI?	Pearson Correlation	0.751**	1
	Sig. (2-tailed)	.000	
	N	46	46

*. Correlation is significant at the 0.01 level (2-tailed).

Interpretation:

Pearson correlation analysis was conducted through which test revealed a strong positive correlation between the use of AI in recruitment and job satisfaction among HR Professionals. The correlation between the use of AI in recruitment and job satisfaction is $r=0.859$ and $p<0.001$ indicating a significant association. Conversely, the correlation of job satisfaction with the use of AI is $r=0.751$ ($p<0.01$) also significant statistically. The results suggests that use of AI in recruitment will lead to increase in job satisfaction by HR Professionals.

Discussions

Research highlights a wide variety of key components of impact of AI on talent acquisition. Implementation of AI technology will significantly takes less time to fill job position. This also aligns with previous literature, which emphasizes that AI can streamline recruitment process and repetitive tasks by integrating data driving decision making (Hemachandran et al 2023; Monika and Senthilmathi, 2023). Strong Positive correlation was found between the use of AI in the recruitment process and job satisfaction with a Pearson correlational analysis of 0.859. This clearly shows and indicates AI not only enhances the operational efficiency but also contributes to a more satisfying work place environment for HR Professionals. The majority of HR Professionals also have strong belief and hope that AI can reduce bias in the recruitment process, further supporting the notion that AI can lead to ethical and fair hiring process. Overall findings of the research highlight that AI can pose strong potential in talent acquisition highlighting its role in improving efficiency, enhancing job satisfaction and promoting unbiased recruitment.

Conclusion:

Adoption of AI in recruitment process will lead to significant development in the recruitment landscape. As AI not only streamlines the hiring process but also enhances job satisfaction among HR Professionals and promote unbiased recruitment practices. As companies continue to navigate in this digital er, embracing AI technology will be very crucial and important for attracting and retaining talent. But however, it is very imperative to balance technology with human judgement and ethical consideration to ensure fair and effective recruitment process.

A number of other prospective improvements were also described in the study, such as the incorporation of cutting-edge AI technology, enhanced bias abatement and detection, individualized applicant experiences, real-time data analytics, cross-cultural research, and multidisciplinary studies. The aforementioned future paths are intended to enhance and improve AI-powered talent acquisition systems, guaranteeing their continued efficacy, equity, and flexibility in response to evolving market conditions.

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