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A STUDY ON EFFECTIVENESS OF USING AI IN RECRUITMENT PROCESS IN STEEL 1 PRIVATE LTD.

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ABSTRACT

This study explores the effectiveness of AI in recruitment and its impact on employee perceptions and organizational outcomes. Analyzing data from 140 employees, including demographics and attitudes towards AI recruitment, revealed positive sentiments about AI's relevance and skill representation. However, concerns about time-saving efficiency and algorithm accuracy were noted. Using statistical tools like Kolmogorov-Smirnov, Mann-Whitney U, and Kruskal-Wallis H tests, the study found dependencies between AI perceptions and employee qualifications, indicating a need for tailored recruitment strategies. Despite high correlations among variables, the non-normal data distribution highlights the complexity of employee attitudes towards AI recruitment. The findings emphasize addressing employee concerns and customizing AI recruitment strategies to fit diverse perceptions and qualifications. Further qualitative and longitudinal research is recommended to better understand AI's evolving role in recruitment.

INTRODUCTION

Artificial intelligence, a term coined in the 1950s by computer scientist and professor John McCarthy, is the science and engineering of making intelligent machines, especially intelligent computer programs. AI machines carry out tasks that require the same characteristics of human intelligence, including decision-making, visual and speech recognition and language translation. AI is broken into two categories: General AI, which accounts for machines that carry out general human-like behavior such as problem-solving or object recognition. Narrow AI, which carries out a particular set of human-like tasks without broader capabilities, like software that primarily focuses on image recognition. Many of a recruiter’s primary tasks involve sifting through large sets of data, like resumes, candidate profiles in recruitment CRM software and the vast amounts of information stored in an ATS. Utilizing this data, AI for recruitment will be able to help recruiters match candidates to jobs through sophisticated algorithms that makes sourcing more intelligent. AI will also help recruiters save through by automating lengthy, repetitive tasks like scheduling a day’s worth of interviews with an entire team. AI presents an incredible opportunity for recruiters’ lives to be made simpler and for organizations to reduce their overall cost-to-hire.

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REVIEW OF LITERATURE

Misbah Naureen (2021), The findings indicate that AI is adopted mainly in high-tech or large companies and step by step evaluation as interviews are still a part of the recruitment process providing space for human bias. **Geetha R (2018),** The study throws light on the techniques used by companies in AI while recruiting. **Jennifer Johansson (2019),** The results show that the area of AI in recruitment is relatively new and there are not many companies that utilize AI in all parts of their recruitment process. **J. FRAIJ (2021),** The results and findings were almost precise that using AI is advantageous in the area of recruitment as technology can serve best in this area. **Wan Mohd Rusydan Wan Ibrahim (2019),** this paper discusses some of the recruitment methods that can be made to ease recruitment exercises using AI. **Joseph Ferolie(2019),**The research finds that attitudes towards organizations that use AI in the recruitment process, significantly influences the likelihood that potential candidates will complete the application process. **Ugur Karaboga(2020),** . It has been found that businesses do not rely much on artificial intelligence in their recruitment processes, so they do not use it or partially use it. **Juthika Kabir Brishti (2020),** The finding shows the opportunities and challenges of using AI in the recruitment process and how it is impacting the hiring. **Vanessa Laurim (2021),** The findings contribute to research on the adoption of AI in the recruitment process and provide recommendations on the use of AI technologies when hiring talents. **Josephine Warkocz (2022),** As we offer evidence for possible adverse reactions to the usage of AI in selection processes, this study provides important practical and theoretical implications. **J. Dijkkamp (2019),** The findings show that artificial intelligence transforms the role of the HR professional from rather sourcing and screening, to a relationship builder and stakeholder manager in which the HR professional enables a positive candidate experience for new employees. **Yating Li (2020),** The perceived positive impact of technology is only sprouting as artificial intelligence and blockchain can further improve the recruitment process in the near future. **Anneke Zuiderwijk(2021),** Finally, the research agenda calls for research into managing the risks of AI use in the public sector, governance modes possible for AI use in the public sector, performance and impact measurement of AI use in government. **Ralf Wilden(2007),** Depth interviews reveal that job seekers evaluate the attractiveness of employers based on any previous direct work experiences with the employer or in the sector; evaluations of the clarity and credibility. **Matthew U. Scherer (2016),** With each passing month, AI gains footholds in new industries and becomes more enmeshed in our day-to-day lives, and that trend seems likely to continue for the foreseeable future.

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OBJECTIVES OF THE STUDY

- To find out the candidate perception during AI driven recruitment process.
- To analyze the level of user acceptance & satisfaction among recruiters and hiring managers with the integration of AI in their workflow.
- To identify any legal or ethical implications associated with the use of AI in recruitment and propose guidelines for responsible AI adoption in this context.
- To examine the cost- effectiveness of implementing AI in recruiting.
- To identify the impact between AI driven hiring decision and employee's performance and retention rates.

NEED OF THE STUDY

Assessing how effectively AI tools identify and select high-quality candidates can provide insights into their impact on the overall quality of hire. It has the potential to streamline and automate various recruitment tasks, such as resume screening, candidate sourcing, and initial interviews. Understanding its effectiveness can highlight how much time and effort can be saved compared to traditional methods. Implementing AI in recruitment may lead to cost savings by reducing the need for human resources dedicated to repetitive tasks. A research project can quantify these cost savings and determine the return on investment for organizations. AI algorithms can be designed to reduce unconscious biases in the recruitment process. Investigating the effectiveness of AI in mitigating bias can lead to fairer hiring practices and promote diversity and inclusion in the workforce.

SCOPE OF THE STUDY

The research will focus on a variety of industries and organizational sizes to provide a comprehensive understanding of the effectiveness of ai in recruitment across different contexts. Both quantitative and qualitative data will be collected and analyzed to provide a well-rounded assessment of the topic. The study will examine the perspectives of multiple stakeholders involved in the recruitment process, including hiring managers, recruiters, hr professionals, and job candidates. Legal and ethical considerations will be explored to ensure a thorough understanding of the implications of using ai in recruitment.

RESEARCH METHODOLOGY

The research design adopted in this study is Descriptive Research. Descriptive research is a research method describing the characteristics of the population or phenomenon studied. The primary data collection techniques used in this study is QUESTIONNAIRE METHOD. In this study, the major questionnaire technique used is Close Ended Questions. The sampling method

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used in this study is PROBABILITY SAMPLING. Probability sampling is a sampling technique where a researcher selects a few criteria and chooses members of a population randomly. The sampling technique used in this study is Simple Random Sampling. The sample size for this study is determined using KREJCIE AND MORGON TABLE. The sample size for this study is 140, which is derived from the total number of employees in the organization, i.e., population(N) of 220. The collected data has been analyzed by the following statistical tool:

1) Mann-Whi-tney U Test
2) Correlation

DATA ANALYSIS AND INTERPRETATION

MANN-WHITNEY U TEST

Hypothesis:

H0: There is no significant difference between the mean rank of male & female with respect to the variables.

H1: There is a significant difference between the mean rank of male & female with respect to the variables.

TABLE SHOWING U TEST SIGNIFICANCE WITH GENDER AS GROUPING VARIABLE

Test Statistics[a]

	Candidate perception	The level of user acceptance and recruiter's satisfaction	Legal or ethical implications	The cost effectiveness of implementing AI	The impact between AI driven hiring decisions and employee performance
Mann-Whitney U	2128.000	2052.000	2144.500	2061.000	1986.500
Wilcoxon W	3559.000	3483.000	5972.500	3492.000	3417.500
Z	-.767	-1.099	-.697	-1.061	-1.381
Asymp. Sig. (2-tailed)	.443	.272	.486	.289	.167

a. Grouping Variable: Gender

INTERPRETATION

The Mann – Whitney U test was conducted on the sample data, and it is found that the significance value (P value) for all the variables is more than 0.05 i.e., P>0.05. Therefore, the null hypothesis (H0) is accepted. There is no statistically significant difference between the mean rank of male & female with respect to the variables.

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CORRELATION

Hypothesis:

H0: The variables are not correlated with each other.

H1: The variables are correlated with each other.

TABLE SHOWING CORRELATION BETWEEN THE VARIABLES

Correlations

			Candidate perception	The level of user acceptance and recruiter's satisfaction	Legal or ethical implications	The cost effectiveness of implementing AI	The impact between AI driven hiring decisions and employee performance
Spearman's rho	Candidate perception	Correlation Coefficient	1.000	.443**	.456**	.499**	.426**
		Sig. (2-tailed)	.	.000	.000	.000	.000
		N	140	140	140	140	140
	The level of user acceptance and recruiter's satisfaction	Correlation Coefficient	.443**	1.000	.326**	.417**	.293**
		Sig. (2-tailed)	.000	.	.000	.000	.000
		N	140	140	140	140	140
	Legal or ethical implications	Correlation Coefficient	.456**	.326**	1.000	.321**	.436**
		Sig. (2-tailed)	.000	.000	.	.000	.000
		N	140	140	140	140	140
	The cost effectiveness of implementing AI	Correlation Coefficient	.499**	.417**	.321**	1.000	.454**
		Sig. (2-tailed)	.000	.000	.000	.	.000
		N	140	140	140	140	140
	The impact between AI driven hiring decisions and employee performance	Correlation Coefficient	.426**	.293**	.436**	.454**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.
		N	140	140	140	140	140

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

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INTERPRETATION

The correlation was conducted on the sample data, and it is found that the significance value (P value) for all the variables is more than 0.05 i.e., P>0.05. Therefore, the null hypothesis (H0) is rejected. The variables are highly correlated with each other.

FINDINGS

It is found that 62.1% of the employees are male.32.9% of the employees belong to the age group of 21-25.50.7% of the employees have the qualification of Bachelor's Degree.30.7% of the employees earn a monthly income of Rs.20,000-Rs.35,000.39.3% of the employees have experience of 1-5 years with the company. 38.6% of the employees agree that the AI-driven recruitment process provides them relevant job opportunities. 42.1% of the employees agree that the AI-driven recruitment process providing relevant job opportunities.37.1% of the employees are satisfied with the user interface and experience of the ai tools used in the recruitment process. 32.9% of the employees agree with the implementation of AI in recruitment processes resulting in cost savings for the organization. 32.9% of the employees are satisfied with the cost-effectiveness of AI solutions compared to traditional recruiting methods The Mann – Whitney U test was conducted on the sample data, and it is found that the significance value (P value) for all the variables is more than 0.05. There is no statistically significant difference between the mean rank of male & female with respect to the variables. So, the alternative hypothesis is rejected. The correlation was conducted on the sample data, and it is found that the significance value (P value) for all the variables is more than 0.05 The variables are highly correlated with each other

SUGGESTIONS

Providing employees with a better understanding of how AI works in the recruitment process and its benefits may foster greater trust and cooperation. Establishing clear guidelines and practices for AI usage, along with mechanisms for accountability and transparency, can help address employee apprehensions and ensure fair treatment of candidates. Implementing a structured feedback mechanism for employees to provide ongoing input on AI-driven recruitment processes can help organizations adapt and improve over time. The company could focus on providing more information and clarity to employees about how AI is utilized in recruitment.

CONCLUSION

The study found that many employees have positive views on AI-driven recruitment, appreciating its relevance, skill representation accuracy, and potential cost savings. However,

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concerns exist about time-saving benefits and AI algorithm accuracy. Perceptions of AI were consistent across gender and age groups but varied by employee qualifications, indicating a need for tailored recruitment strategies based on educational backgrounds. While some statistical tests revealed dependencies between AI perceptions and qualifications, not all results were significant, suggesting nuanced relationships. High correlations among AI perception aspects indicate interconnected attitudes influencing overall recruitment views. The study concludes that AI recruitment shows promise but requires addressing employee concerns and customizing strategies. Further qualitative and longitudinal research is recommended to understand AI's evolving impact on recruitment and organizational practices.

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