THE ROLE OF ARTIFICIAL INTELLIGENCE IN MODERN RECRUITMENT AND SELECTION PROCESS

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ABSTRACT

Rapid technological development has led to research focused on combining recruitment and information technology (IT). Typically, the focus has been on how to make the recruitment and selection process smoother and optimized using IT or on technological advances that offer a new, smart, digital context for human resource management (HRM) practices. Moreover, time, effort, and repeating daily tasks are transformed into computer-driven ones, which gives recruiters enough room to focus on more important issues related to performance improvement and development. AI algorithms are only as good as the data on which they are trained, and if that data is biased, so are the algorithms (Danks & London, 2017). This study explores job applicants' perceptions of AI-powered recruitment tools, focusing on factors such as trust, fairness, transparency, and effectiveness. A descriptive research design was employed to examine these perceptions comprehensively. Convenience sampling was used to select a sample of 181 respondents. Data analysis techniques included ANOVA and regression analysis to uncover insights into applicants' attitudes toward AI-driven recruitment systems. The findings reveal that applicants generally hold positive perceptions of AI technology in hiring processes, recognizing its potential to enhance the efficiency of recruitment systems when integrated with human involvement. These results underscore the importance of designing AI tools

Key word: AI Powered recruitment tools, Job Applicants perception, Efficiency, AI tool design.

INTRODUCTION

Before the late 1990s, the recruitment and selection processes relied on manual methods. HR practitioners were responsible for attracting job seekers, manually screening and assessing job applications, and determining who should advance in the hiring process or secure employment. However, the traditional nature of this recruitment and selection approach proved to be labour intensive, and it often exposed deliberate and unintentional biases from HR practitioners. This means that professionals involved in the hiring process frequently engage in conscious or

unconscious stereotyping and discrimination against job applications due to their personal characteristics, such as gender and age.

However, the hiring process underwent a significant transformation with the advent and swift proliferation of the Internet during the 1990s. One notable event was the advent of digital job boards, which began to gather and post several job vacancies, targeting and reaching a vast pool of potential job candidates at minimal expense and in a more attractive manner. In this context, the network effect played a pivotal role: as websites showcased more job vacancies, they drew in more job seekers, and as they attracted more job seekers, they encouraged employers to post more job vacancies and pay for their services. Simultaneously, online recruitment (or e-recruitment) took the shape of professional networking platforms, meaning that people could form and cultivate a community cantered around work-related interests, facilitating the exchange of information and endorsements. Platforms such as LinkedIn, Glassdoor, indeed, or Monster, among many others, clearly illustrate this point. Over time, this wave of job seekers encouraged more employers to post job vacancies on these platforms, creating a self-reinforcing cycle of growth and connectivity, which gradually paved the way for further advancements in AI-powered solutions.

To date, HR practitioners navigate an ever-evolving landscape, often striving to keep up with technological advancements. Increasingly, however, they recognize AI's transformative potential in talent acquisition and are turning to AI-driven methods for recruitment and selection.

AI RECRUITMENT SYSTEM

The exponential growth of artificial intelligence (AI) technologies, transforming entire industries and organizations, has also generated much interest in human resources (HR). The recent increase in the use of AI in HR and recruitment, referred to as "the new age of HR," in which AI is transforming the recruitment industry by replacing routine tasks previously performed by human recruiters, has also led to a growing literature on this topic (Upadhyay A & Khandelwal, 2018). However, applicants' perspectives on AI in recruitment and their perception of AI tools in hiring processes do not appear to be fully explored and represent the most significant contribution of this paper in a growing body of literature on the subject. Most of the studies on AI technology in HR or, more specifically, on the impact of AI on recruitment processes conclude that the use of AI in recruitment is beneficial because the technology can be best used in this area (Frail & Laszl ´ o, ´ 2021).

Lee and Cha (2023) proposed the fairness, accountability, and transparency (FAT)-complexity, anxiety, and trust (CAT) model to verify and explain hiring decisions made by applied AI algorithms. Moreover, there are growing concerns about the ethical aspects of using AI in recruitment and whether AI-powered recruitment tools are ethical and whether ethical

perceptions of the use of AI in recruitment affect people's trust in the companies that use them, as AI algorithms are generally not publicly accessible due to property rights (Figueroa-Armijos et al., 2022). In addition, there are fears of displacement of human jobs by automation and legal concerns about the final selection of applicants and hiring decisions. Finally, there are concerns in areas such as privacy and security. AI has the potential to collect and analyse large amounts of personal data, which raises concerns about protecting individuals' privacy rights (Stahl & Wright, 2018). Therefore, it is important for employers to carefully weigh the benefits and potential drawbacks of using AI in recruitment and ensure that any AI tools applied are fair and unbiased. Limited research on AI in HR and even lower attention paid by scholars to the applicant's perception of AI tools used in talent acquisition and little empirical study may be due to the following limitations. This research provides theoretical input and could help HR managers and software developers identify weaknesses in AI technology. It also provides guidance on how AI capabilities can be used to improve the candidate experience and customer management, which have recently been identified as one of the key issues in the recruitment industry. A better understanding of how AI tools are perceived could help HR practitioners focus on what may improve the candidate experience. The drawbacks of AI tools currently in use could help recruiters and software developers understand the limitations of these tools and identify areas for improvement.

TYPES OF AI-BASED RECRUITMENT STRATEGIES

CHATBOTS

Chatbots are a form of conversational AI that can interact with candidates and provide them with information about the job opening and the organization. For instance, Koivunen et al. (2022) conducted a study on the use of chatbots in the recruitment process of several types of companies. The study found that chatbots were effective in improving the candidate experience by providing quick and accurate responses to candidates' queries. The study also found that chatbots reduced the workload of recruiters, enabling them to focus on more complex tasks, such as candidate assessment and interviewing. However, the use of chatbots in recruitment also has its limitations. One major limitation is that chatbots may not be able to answer all of the candidates' questions or provide personalized responses, which can lead to a poor candidate experience.

PREDICTIVE ANALYTICS

Predictive analytics involves using data mining and machine learning algorithms to identify patterns and predict future outcomes. In the context of recruitment, predictive analytics can be used to identify the most promising candidates based on their past behaviour and performance. Predictive analytics can also be used to predict the likelihood of a candidate accepting a job offer or leaving the company within a certain period. The effectiveness of predictive analytics in recruitment has been studied by several researchers. For instance, Mehta et al. (2013) introduced a decision support system designed to manage and optimize screening activities during the hiring process within large organizations.

MACHINE LEARNING ALGORITHMS

Machine learning algorithms can be used to screen resumes and identify the most promising candidates based on specific criteria. Machine learning algorithms can be trained on a large dataset of resumes to identify patterns and make predictions about the suitability of a candidate

for a particular job. Machine learning algorithms can also be used to identify potential biases in the recruitment process and reduce them (Roy et al., 2020).

THE AMBITIONS OF AI-DRIVEN RECRUITMENT AND SELECTION

This transition represents a plot twist in how organizations hire new personnel, specifically the development and use of AI applications in the hiring process that simplify or replace HR practitioners in executing four key functions: outreach, screening, assessment, and coordination. This implies that AI applications currently have the potential to aid HR practitioners in the attraction and identification of job applicants because they can easily learn and strategically place job vacancies through various means, such as banners, pop-ups, emails, and text messages, to maximize visibility and responses (something used in digital marketing, see. In this sense, AI applications can outperform human counterparts in screening job applications thanks to their ability to expedite the process and extract specific skills and personality traits from a job applicant's digital records, including their online presence on social media platforms. They can also enhance HR practitioners in the assessment phase, with gamification as a classic example, and streamline the coordination across different stages of the recruitment and selection process. Throughout this hiring pipeline, decisions at each stage generate data likely to influence the following interactions, forming a feedback loop. For instance, assessment outcomes can impact job tenure, a key prediction target for future outreach and screening driven by AI applications.

Generally, the recruitment and selection of the right people are inextricably intertwined with the survival and prosperity of any organization. Said otherwise, the hiring process creates a pool of workers possessing the optimal blend of knowledge, skills, abilities, and other attributes necessary for gaining a competitive edge. In this regard, adopting AI applications for recruitment and selection stems from a strategic motivation driven by the so-called 'war for talent'. The prevailing belief is that AI applications can enhance the efficiency of virtually any recruitment and selection process, particularly in terms of time, cost, and effort. In the conventional hiring paradigm, time and geography usually emerge as critical limitations since the recruitment process can be time-consuming, characterized by lengthy job postings, multiple rounds of interviews, and complex decision-making procedures often bound to geographical restrictions. With AI-driven tools, organizations can surpass the constraints of geographical boundaries, enabling them to reach a global talent candidate pool without being bound by physical proximity.

REVIEW OF LITRATURE

Gupta, A., Mishra, M. (2022), Ethical Concerns While Using Artificial Intelligence in Recruitment of Employees: In recent years, many companies have used various Artificial Intelligence tools such as chatbots and face recognition software for fulfilling their hiring needs. This research work will focus on such devices that help manage one of the important functions of human resources: recruitment. It will identify various challenges and ethical issues that a firm faces while assimilating Artificial Intelligence tools in the process of Recruitment.

Zhisheng Chen (2022), Collaboration among recruiters and artificial intelligence: removing human prejudices in employment: The study explore how talent acquisition has transitioned from digital 1.0 to 3.0 (AI-enabled) as the digital tool redesigns business. Further, the study analyses that AI plays an important role in each stage of recruitment, such as recruitment promotion, job search, application, screening, assessment, and coordination.

Maria Figueroa-Armijos (2022), Ethical Perceptions of AI in Hiring and Organizational Trust: The Role of Performance Expectancy and Social Influence: study offers theoretical and practical implications for ethics in HRM and informs policy implementation about when and how to use AI in hiring methods, especially as it pertains to acting ethically and trustworthily.

Dr. Sameh Abdelhay (2023), How Artificial Intelligence can affect the process of recruitment and improve the quality of new hired employees: This study mostly serves as a descriptive study. The primary goal of the research was to analyse the impact of AI on HR. According to the study's findings, AI plays an increasingly important role in human resources, with robotics firms increasingly able to handle tasks like hiring and on-boarding new employees, as well as data collection, analysis, and management.

Seema Bhakuni (2023), Application of artificial intelligence on human resource management in information technology industry in India: This study looks into how artificial intelligence can handle human resources in India's Information Technology (IT) business. This study looks at what makes AI-driven HRM practices in the Indian IT business work the way they do. The researcher has collected secondary sources like journal articles, study papers, dissertations, and reports from different IT companies related to AI in HR. Information is gathered from individuals who work in IT organizations' human resources offices.

Kavita Ranim, Yogesh Kumar, Neha Dhami (2023), The role of AI in recruitment:

The main contribution of the current study is an explanation of how artificial intelligence-based human resource management functions might be used to gauge an employer's reputation inside Indonesia's pharmaceutical business. In order to assess the influence of artificial intelligence adoption as a mediator in employer reputation, the study will empirically investigate the values of AI-based recruitment and AI-based qualification.

Piotr Horodyski (2023), Applicants' perception of artificial intelligence in the recruitment process: Rapid technological development has led to research focused on combining recruitment and information technology (IT). Typically, the focus has been on how to make the recruitment process smoother and optimized using IT or on technological advances that offer a new, smart, digital context for human resource management (HRM) practices.

Wael Abdul rahman Albassam (2023), The Power of Artificial Intelligence in Recruitment: An Analytical Review Of Current Ai-Based Recruitment Strategies: The aim of this study is to contribute to the understanding of the power of artificial intelligence (AI) in recruitment and to highlight the opportunities and challenges associated with its use.

Carlotta Rigotti (2024), Fairness, AI & recruitment: This article, conduct a scoping literature review on fairness in AI applications for recruitment and selection purposes, with special emphasis on its definition, categorization, and practical implementation. Itstarts by explaining how AI applications have been increasingly used in the hiring process, especially to increase the efficiency of the HR team, then it move to the limitations of this technological innovation, which is known to be at high risk of privacy violations and social discrimination.

Piriyapong wongras (2023), a study of factors influencing employees' acceptance of artificial intelligence technology in recruitment: The study adapts the Unified Theory for Acceptance and Use of Technology (UTAUT) model to align with the specific requirements of Thai recruitment practices. It explores the factors influencing user's intention to accept AI in recruitment. Survey

questionnaire was developed based on existing literature and refined through interviews to ensure relevance within the Thai recruitment context.

Chang Hyun Lee, Kyung Jin Cha (2023), FAT-CAT—Explain ability and augmentation for an AI system: A case study on AI recruitment-system adoption: This paper suggested the FAT-CAT model with explain ability and augmentation.CAT explains that AI can create higher value when it cooperates with humans. FAT explains explain ability as AI's capability for the ideal human-AI augmentation. The FAT-CAT model emphasizes equitable aspects for AI system adoption

STATEMENT OF THE PROBLEM

AI recruitment refers to the use of artificial intelligence technologies in the hiring process. This can include AI-powered tools for resume screening, candidate sourcing, interview scheduling, and to understand the expectations of applicants in AI recruitment and to make necessary modifications in the design of AI recruitment software. Predictive analytics to identify top candidates. AI recruitment aims to streamline and improve the efficiency of the hiring process by automating repetitive tasks and providing data-driven insights to recruiters. However, it also raises concerns about bias and privacy issues that need to be carefully addressed. Bias in algorithms, lack of transparency, Data Privacy, Human Touch, Potential for Errors, are some of the obstacles of the implementation of the AI recruitment. This study is to focus on applicant acceptance of the AI recruitment by considering all of concerns.

NEED FOR THE STUDY

The purpose of this study is to identify the challenges in the implementation of AI recruitment and selection. It also aims to assess the effectiveness of AI in candidate sourcing, screening, and selection. The FAT-CAT model is developed with three attributes related to interpretability (fairness, accountability, and transparency) and three attributes related to augmentation (complexity, anxiety, and trust) to evaluate applicants' perceptions.

RESEARCH OBJECTIVES

The objectives of this study are as follows: 1. To explore the impact of AI-powered recruitment tools on job seekers' attitudes, behaviors, and experiences throughout the hiring process. 2. To examine how AI influences job seekers' perceptions and interactions during the application phase. 3. To assess applicants' perspectives on AI-driven recruitment, including their levels of trust, fairness, transparency, and perceived effectiveness. 4. To identify potential areas for improvement in AI recruitment software to enhance its functionality and user experience.

METHODOLOGY OF THE STUDY

This study employs a descriptive research design to explore applicant perceptions of AI in recruitment processes. By focusing on how job seekers perceive AI-driven hiring, the research aims to gather and analyze data that reflect their attitudes, beliefs, and concerns. This approach involves methods such as surveys, interviews, and focus groups to gain a detailed understanding of these perceptions. The findings aim to provide a comprehensive overview to guide decision-making and enhance the adoption and effectiveness of AI in recruitment practices.

The study utilizes both primary and secondary data sources for information collection. Primary data is gathered directly from individuals, including students, freshers, employees, job seekers, and recruiters. Secondary data, on the other hand, is obtained from existing literature, sourced from websites, online databases, and platforms such as Google Scholar.

The study utilizes a convenience sampling method, with a total sample size of 181 participants.

Data Collection method A Google Form was developed containing the following sections: 9 questions focused on demographic factors, 3 questions related to Fairness, 3 on Accountability, 3 on Transparency, 4 addressing Complexity, 5 on Anxiety, 4 on Trust, 3 on Insecurity, 3 on Trialability, 4 on Job Relevance, and 3 concerning AI recruitment system adoption. The form was distributed to a diverse group of participants, including freshers, employees, job seekers, students, and recruiters, to gather data.

RESEARCH GAP

This research has several limitations. First, this study only examined applicants' perceptions of AI recruitment, one potential research gap could be investigating how cultural differences influence applicant perceptions of AI recruitment practices. The research can be conducted in various company employee. The research should be extended to various states of Tamil Nadu. The studies could consider a wider and more comprehensive range of value dimensions and orientations. The study was majorly conducted among the recruiter

DATA ANALYSIS AND RESEARCH

Statistical tool used for analysis of data is SPSS 20. The data analysis was classified into two phases
Phase I – Frequency table and Charts for Personal information, Rational factors.
Phase II – Descriptive statistics, Reliability statistics, one way Analysis of Variance and Multiple Regression analysis were used for the finding of applicant perception on AI recruitment.

REGRESSION HYPOTHESIS

H1: There is a significant difference in the mean score of AI Recruitment System Adoption and its dimensions by their Age.
H2: There is a significant difference in the mean score of AI Recruitment System Adoption and its dimensions by their Education Qualification.
H3: There is a significant difference in the mean score of AI Recruitment System Adoption and its dimensions by their Marital Status.
H4: There is a significant difference in the mean score of AI Recruitment System Adoption and its dimensions by their Current Position.
H5: There is a significant difference in the mean score of AI Recruitment System Adoption and its dimensions by their Industry Type.
H6: There is a significant difference in the mean score of AI Recruitment System Adoption and its dimensions by their knowledge about AI Recruitment System.

H7:There is a significant difference in the mean score of AI Recruitment System Adoption and its dimensions by theirApplicant Experience in AI Recruitment.

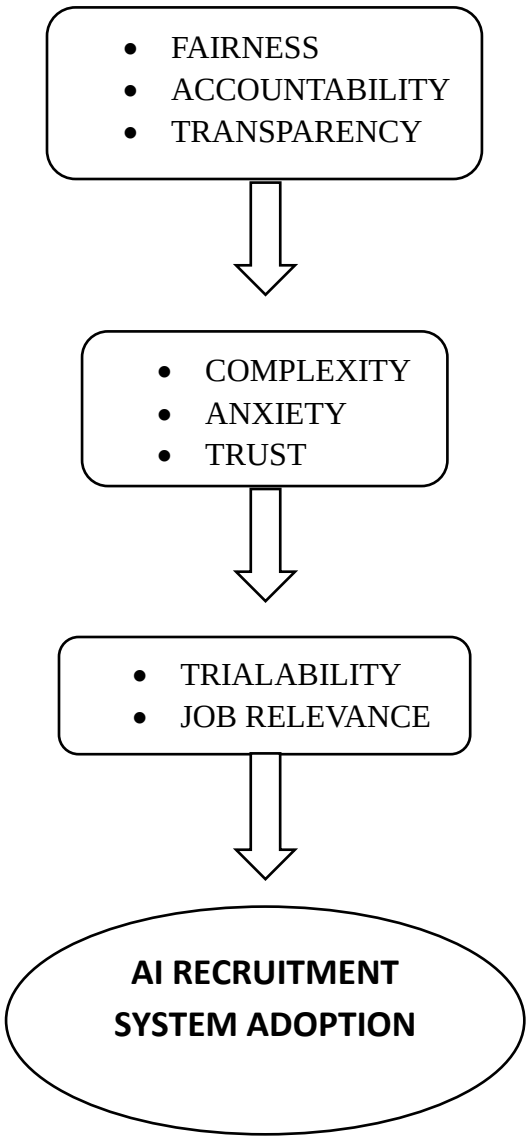
LIMITATION OF THE STUDY

The study focuses exclusively on the applicant perspective, while perspectives from recruiters were not extensively explored.

Collecting additional data from recruiters and job seekers could enhance the reliability and depth of the results.

The research was conducted across various IT, manufacturing, and service industries in different locations, providing a broad but potentially uneven representation.

THEORITICAL FRAMEWORK



SELECTED DIMENSIONS

- Fairness in AI recruitment is crucial to ensure equal opportunities and mitigate bias in the hiring process. It involves examining how algorithms are trained, data is collected, and decisions are made to avoid perpetuating discrimination or favouritism based on factors like race, gender, or socioeconomic status.
- Accountability involves identifying and addressing potential biases, errors, or unintended consequences of AI recruitment systems, as well as establishing mechanisms for oversight, monitoring, and redress in case of issues or disputes. This includes having clear policies, documentation, and mechanisms for auditing and evaluating the performance and impact of AI recruitment tools.
- Transparent AI recruitment systems help build trust by allowing applicants to understand why they were or were not selected for a position and enable stakeholders to assess the fairness and reliability of the system. It involves disclosing information about the training data, algorithms, performance metrics, and potential biases, as well as providing avenues for feedback and recourse in case of concerns or disputes.
- The complexity arises from factors such as the diversity of data sources, the dynamic nature of job requirements, and the need to balance various objectives, such as diversity, fairness, and performance, in the hiring process. Managing this complexity requires expertise in AI, data science, ethics, and human resources, as well as careful consideration of the potential risks and implications of automated decision-making in recruitment.
- Anxiety in AI recruitment refers to the apprehension or concern felt by job applicants, recruiters, or other stakeholders about the use of AI technologies in the hiring process. Job applicants may feel anxious about how AI algorithms analyze their resumes or assess their qualifications,
- Trust in AI recruitment is essential for both job applicants and hiring organizations. Job applicants need to trust that the AI systems used in recruitment will fairly and accurately evaluate their qualifications and competencies, without introducing bias or discrimination.

- Trialability in AI recruitment refers to the ability of organizations to test and evaluate AI-driven recruitment technologies before fully implementing them into their hiring processes. It involves conducting pilot programs, trials, or experiments to assess the effectiveness, efficiency, and suitability of AI systems for specific recruitment tasks or objectives.
- Job relevance in AI recruitment refers to the alignment between the qualifications, skills, and experiences of job applicants and the requirements of the job positions they are applying for. AI recruitment systems aim to assess the relevance of candidates' backgrounds to specific job roles by analyzing resumes, cover letters, and other relevant information.
- AI Technology is almost changing the world in many ways. AI Recruitment system is also developing in this technological world. People should accept and prepare them for the technological development. AI recruitment provide the candidate a better job applies. The effective recruitment can be done through the AI recruitment system. The variables help in the finding of the applicant AI Recruitment system adoption.

Table: 1 **RELIABILITY STATISTICS**

DIMENSION	**NO OF ITEMS**	**CRONBACH'S ALPHA**
FAIRNESS	3	.853
ACCOUNTABILITY	3	.799
TRANSPARENCY	3	.825
COMPLEXITY	4	.893
ANXIETY	5	.823
TRUST	4	.886
INSECURITY	3	.805
TRIALABILITY	3	.891
JOBRELEVANCE	4	.917
AIRECRUITMENTSYSTEMADOPTION	3	.879

The reliability analysis of the perception of AI recruitment and its dimensions—fairness, accountability, transparency, complexity, anxiety, trust, insecurity, trialability, job relevance, and AI recruitment system adoption—revealed values exceeding 70%. This indicates that the perception of AI recruitment system adoption is consistent and reliable.

Table: 2 ANOVA (Age, Qualification, Marital Status and Current Position)

Independent variable	**Category**		Mean score	**p-value**
ANXIETY	**Age**	20 - 30 years	2.93	**.003**
		41-50 years	3.49	
	Qualification	undergraduate	2.86	**.050**
		diploma	3.40	
FAIRNESS	**Marital Status**	Married	4.21	**.027**
		Unmarried	3.90	
ACCOUNTABILITY		Married	4.07	**.009**
		Unmarried	3.71	
FAIRNESS	**Current Position**	Recruiter	4.33	**.000**
		Others	2.00	
ACCOUNTABILITY		Employee	4.01	**.000**
		Ohters	2.00	
TRANSPARENCY		Employee	3.90	**.000**
		Others	2.00	
COMPLEXITY		Fresher	4.10	**.000**
		Others	2.00	
ANXIETY		Employee	3.13	**.000**
		Others	2.00	
TRUST		Employee	4.03	**.000**
		Others	1.75	
INSECURITY		Fresher	4.03	**.000**
		Others	1.67	
TRIALABILITY		Fresher	4.01	**.000**
		Others	1.67	
JOB RELEVANCE		Fresher & Recruiter	4.17	**.000**
		others	1.25	
AIRECRUITMENT SYSTEM ADOPTION		Fresher	4.17	**.000**
		Others	1.33	

Inferences:

The table presents the significant results of a one-way ANOVA analysis examining applicant perceptions of AI recruitment and its dimensions based on **Age**, **Educational Qualification**, **Marital Status**, and **Current Position**. The key findings are summarized below:

Age

The significant p-value (.003) indicates differences in applicant perceptions of AI recruitment across age groups. Therefore, the null hypothesis is rejected.

Anxiety: The highest mean score is 3.4889 for the age group *41–50 years*, and the lowest is 3.4571 for the group *31–40 years*.

Educational Qualification

The significant p-value (.053) suggests a difference in applicant perceptions based on educational qualification. Thus, the null hypothesis is rejected.

Anxiety: The highest mean score is 3.4000 for respondents with a *Diploma*, and the lowest is 2.8649 for *Undergraduates*.

Marital Status

Significant p-values (.027, .009) reveal differences in applicant perceptions of AI recruitment across marital status categories. Consequently, the null hypothesis is rejected.

Fairness: The highest mean score is 4.2133 for *Unmarried* individuals, and the lowest is 3.9033 for *Married* individuals.

Accountability: The highest mean score is 4.0733 for *Unmarried* individuals, and the lowest is 3.7430 for *Married* individuals.

Current Position

Significant p-values (.000 across all dimensions) indicate substantial differences in perceptions based on current positions. Thus, the null hypothesis is rejected.

Fairness: The highest mean score is 4.3333 for *Recruiters*, and the lowest is 3.3431 for *Students*.

Accountability: The highest mean score is 4.0160 for Employees, and the lowest is 2.0000 for Others.

Transparency: The highest mean score is 3.8974 for Employees, and the lowest is 2.0000 for Others.

Complexity: The highest mean score is 4.1042 for Employees, and the lowest is 2.0000 for Others.

Trust: The highest mean score is 4.0337 for Employees, and the lowest is 2.0000 for Others.

Insecurity: The highest mean score is 4.0370 for Employees, and the lowest is 1.6667 for Others.

Trialability: The highest mean score is 4.0093 for Employees, and the lowest is 1.6667 for Others.

Job Relevance: The highest mean score is 4.1667 for Freshers, and the lowest is 1.2500 for Others.

AI Recruitment System Adoption: The highest mean score is 4.1667 for Freshers, and the lowest is 1.3333 for Others.

The analysis confirms significant differences in applicant perceptions of AI recruitment and its dimensions based on **Age**, **Educational Qualification**, **Marital Status**, and **Current Position**,

highlighting the influence of these factors on perceptions of fairness, accountability, trust, and related dimensions.

Table: 3 ANOVA (Industry type, Knowledge about AI, Applicant Experience in AI Recruitment)

Independent variable	Category		Mean score	p-value
FAIRNESS	**Industry type**	Manufacturing sector	**4.170**	**.036**
		IT sector	**3.734**	
ACCOUNTABILITY		Food and Beverage industry	**4.167**	**.010**
		Others	**3.567**	
TRUST		Services industry	**4.097**	**.021**
		IT sector	**3.583**	
INSECURITY		Food and Beverage industry	**4.500**	**.043**
		Others	**3.577**	
FAIRNESS	**Knowledge about AI**	Yes	**4.034**	**.028**
		No	**3.574**	
ACCOUNTABILITY		Yes	**3.857**	**.045**
		No	**3.444**	
TRANSPARENCY		Yes	**3.810**	**.004**
		No	**3.241**	
COMPLEXITY		Yes	**3.905**	**.001**
		No	**3.236**	
TRUST		Yes	**3.893**	**.001**
		No	**3.208**	
INSECURITY		Yes	**3.902**	**.002**
		No	**3.278**	
TRIALABILITY		Yes	**3.879**	**.015**
		No	**3.352**	
JOB RELEVANCE		Yes	**4.040**	**.001**
		No	**3.361**	
AIRECRUITMENT SYSTEM ADOPTION		Yes	**3.519**	**.016**
		No	**3.519**	
FAIRNESS	**Applicants experience in AI**	No	**4.175**	**.000**
		Yes	**3.259**	
ACCOUNTABILITY		No	**3.933**	**.002**
		Yes	**3.380**	
TRANSPARENCY		May be	**3.897**	**.032**
		Yes	**3.407**	
COMPLEXITY		No	**3.983**	**.000**
		Yes	**3.271**	

TRUST	**Recruitment**	No	**4.007**	**.000**
		Yes	**3.188**	
INSECURITY		May be	**3.992**	**.000**
		Yes	**3.296**	
TRIALABILITY		No	**4.025**	**.000**
		Yes	**3.074**	
JOB RELEVANCE		May be	**4.186**	**.001**
		Yes	**3.521**	
AIRECRUITMENT SYSTEM ADOPTION		May be	**4.274**	**.000**
		Yes	**3.370**	

The table highlights the significant findings from a one-way ANOVA analysis evaluating applicant perceptions of AI recruitment and its dimensions based on **Industry Type**, **Knowledge about AI**, and **Applicant Experience in AI Recruitment**. The key inferences are summarized below:

Industry Type

Significant p-values (.036, .010, .021, .043) indicate differences in perceptions across industries. Thus, the null hypothesis is rejected, confirming that Industry Type significantly influences perceptions of AI recruitment and its dimensions.

Fairness: Highest mean score of 4.1694 in the Manufacturing Industry and lowest of 3.7346 in the IT Sector.
Accountability: Highest score of 4.1667 in Food & Beverage and lowest of 3.5769 in Other.
Trust: Highest score of 4.0972 in the Service Sector and lowest of 3.5833 in the IT Sector.
Insecurity: Highest score of 4.5000 in Food & Beverage and lowest of 3.5169 in Other.

Knowledge about AI Recruitment

Significant p-values (.028, .045, .004, .001, .002, .015, .001, .016) show that Knowledge about AI Recruitment has a significant impact on perceptions. Thus, the null hypothesis is rejected.
Fairness: Highest score of 4.0348 for respondents with Knowledge (Yes) and lowest of 3.5741 for those with *No Knowledge*.
Accountability: Highest score of 3.8569 for Yes and lowest of 3.4444 for No.
Transparency: Highest score of 3.8098 for Yes and lowest of 3.2407 for No.
Complexity: Highest score of 3.9049 for Yes and lowest of 3.2361 for No.
Trust: Highest score of 3.8926 for Yes and lowest of 3.2083 for No.
Insecurity: Highest score of 3.9018 for Yes and lowest of 3.2778 for No.
Trialability: Highest score of 3.8793 for Yes and lowest of 3.3519 for No.
Job Relevance: Highest score of 4.0399 for Yes and lowest of 3.3611 for No.
AI Recruitment System Adoption: Highest score of 4.0082 for Yes and lowest of 3.5185 for No.

Applicant Experience in AI Recruitment

Significant p-values (.000, .002, .032, .000, .000, .000, .000, .000, .001) indicate that Applicant Experience significantly affects perceptions of AI recruitment and its dimensions. Therefore, the null hypothesis is rejected.

Fairness: Highest score of 4.1368 for Maybe and lowest of 3.3063 for Yes.
Accountability: Highest score of 3.9333 for No and lowest of 3.3874 for Yes.
Transparency: Highest score of 3.8974 for Maybe and lowest of 3.4505 for Yes.
Complexity: Highest score of 3.9833 for No and lowest of 3.3041 for Yes.
Trust: Highest score of 4.0071 for No and lowest of 3.2162 for Yes.
Insecurity: Highest score of 3.9915 for Maybe and lowest of 3.3423 for Yes.
Trialability: Highest score of 4.0254 for No and lowest of 3.1081 for Yes.
Job Relevance: Highest score of 4.1859 for Maybe and lowest of 3.5608 for Yes.
AI Recruitment System Adoption: Highest score of 4.2735 for Maybe and lowest of 3.3784 for Yes.

The analysis confirms significant differences in perceptions of AI recruitment based on Industry Type**,** Knowledge about AI**,** and Applicant Experience in AI Recruitment, with variations across different dimensions such as fairness, accountability, trust, and others.

REGRESSION

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.835[a]	.698	.682	.46191

a. Predictors: (Constant), JOBRELEVANCE, ANXIETY, ACCOUNTABILITY, TRANSPARENCY, FAIRNESS, COMPLEXITY, TRUST, INSECURITY, TRIALABILITY

REGRESSION-ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84.329	9	9.370	43.916	.000[b]
	Residual	36.485	171	.213		
	Total	120.814	180			

a. Dependent Variable: AIRECRUITMENTSYSTEMADOPTION
b. Predictors: (Constant), JOBRELEVANCE, ANXIETY, ACCOUNTABILITY, TRANSPARENCY, FAIRNESS, COMPLEXITY, TRUST, INSECURITY, TRIALABILITY

The above table shows that the regression coefficient is significant $F(9, 171) = 43.916$, $p < 0.01$). There is a correlation between the 9 independent variables (job relevance, anxiety, accountability, transparency, fairness, complexity, trust, insecurity, trialability) with the

dependent variable, AI recruitment adoption (R = .835[a]) explain 69% of the variance in AI recruitment adoption (R^2 = .698) and 68% of the variance of employee retention of the population (Adjusted R^2 = .682).

REGRESSION-COEFFICIENT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.308	.227		1.357	.177
	FAIRNESS	-.095	.064	-.098	-1.485	.139
	ACCOUNTABILITY	.181	.057	.183	3.170	.002
	TRANSPARENCY	-.075	.056	-.074	-1.332	.185
	COMPLEXITY	.203	.066	.204	3.084	.002
	ANXIETY	.011	.042	.012	.260	.795
	TRUST	.014	.075	.014	.183	.855
	INSECURITY	-.005	.078	-.005	-.068	.946
	TRIALABILITY	.232	.076	.248	3.069	.003
	JOBRELEVANCE	.476	.078	.471	6.087	.000

a. Dependent Variable: AIRECRUITMENTSYSTEMADOPTION

The above table shows that accountability, complexity, trialability, job relevance value influences significantly with AI recruitment system adoption, where else fairness, transparency, anxiety, trust, insecurity, does not influence AI recruitment system adoption. Accountability was found significant, positive predictor of AI recruitment system adoption (β = .181, p <.002).Complexity value fit (β = . .203, p <.002). Trialability value fit (β = . .232, p <.003). Job relevance value fit (β = . .476, p <.000).

FINDINGS

- Majority of the respondents are unmarried female between the age group of 20 - 30 years, with post graduate as their educational qualification. Major of the resonance are

employee, fresher, students. The most employee are working in IT sector, Manufacturing sector, Service sector and other. Final demographic findings say about major of the resonance known about AI Recruitment.

ONE WAY ANALYSIS OF VARIANCE

- The majority of respondents believe that AI will be developed and trained in a responsible manner, ensuring it is free from inherent biases and includes safety measures to prevent misuse or errors. They are confident that AI-driven recruitment processes will be fair, transparent, and unbiased. This includes continuous monitoring and evaluation of AI algorithms to prevent discrimination and ensure equal opportunities for all candidates. Accountability measures may involve regular audits, bias testing, and the application of ethical guidelines to protect against algorithmic biases.
- Most of the employee, fresher, student and job seeker believe that the AI recruitment system will be clear and understandable. They believe that AI recruitment will be easy to understand and use in their job application. They strongly believe that apply for job in AI recruitment system will be easy.
- Majority of the respondent believe that it is easy to recover from mistakes when using AI recruitment system. They believe it is easy to current mistakes in AI recruitment system. They also believe that AI recruitment system have the ability to undo the last action.
- Majority of the respondent believe that AI recruitment system is highly important in their job search. They believe that using AI recruitment system will provide relevant job roles. They strongly believe that human and AI combination of recruitment will give the effective recruitment.

SUGGESTION

- Many applicants believe that AI recruitment systems may not operate fairly, with concerns about favouritism and discrimination. To address this, it is essential that AI recruitment systems be designed to be unbiased and deliver accurate, impartial results.

- Applicants and employees often hesitate to use AI technology due to fears of making irreversible mistakes. To alleviate this anxiety, companies should ensure that users are thoroughly educated about the AI system and its functions before its implementation.

- The effectiveness of the AI recruitment system can be maximized when human judgment is incorporated into the process. A collaborative approach, where both human input and AI capabilities work together, will lead to more efficient and fair recruitment outcomes.

CONCLUSION

This study explores applicants' perceptions regarding the adoption of AI recruitment systems in their job search. The findings indicate that AI adoption is largely accepted due to its attributes of accountability, complexity, trialability, and job relevance. However, the study suggests that AI recruitment systems should be enhanced with more efficient features and developed in an unbiased manner. A combined approach involving both human and AI recruitment systems is seen as a way to optimize the recruitment process. The results also highlight that applicants generally have a positive view of AI technology in hiring, noting its ease of use and clarity in the job application process as key benefits. On the other hand, applicants expressed concerns regarding the need for human judgment and the importance of fairness and impartiality in decision-making. Ethical issues, privacy implications, and legal challenges were also identified as potential drawbacks. Addressing these weaknesses in the current AI systems can provide valuable insights for HR practitioners and software developers, helping to refine AI tools for better integration and adoption within the HR field.

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