Challenges in Implementing AI-Driven Hiring Model in the Indian it Sector- An AHP Analysis

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Artificial Intelligence (AI) in hiring processes has great potential to improve decision-making, streamline hiring processes, and increase overall efficiency in the IT sector. However, the incorporation faces a lot of challenges. Organizations can minimize biases, enhance trust in AI-driven processes, and encourage a more diverse workforce by understanding and prioritizing these challenges. This research study aims to analyze and prioritize challenges associated with implementing AI-driven hiring in the IT sector. The initial phase in the research process is a comprehensive examination of the literature to determine the unique difficulties in applying AI hiring modelsin the Indian IT industry and thereafter the gathered data is evaluated using Analytic Hierarchy Process (AHP) methods to determine the relative importance of these factors. Based on the analysis out of the ten challenging factors, Cost was the major one which acted as a barrier limiting the implementation of AI-driven hiring in the IT industry.

Keywords: Artificial Intelligence, Hiring, IT Sector, AHP, Challenges challenges in Implementing AI-Driven

1. Introduction

The Information Technology (IT) sector is widely acknowledged for its rapid development, creativity, and ongoing need for highly qualified personnel. The capacity to attract and retain skilled labor is a basic requirement in this ever-changing landscape for businesses hoping to survive in the face of fierce competition and rapid technological advancement. The role of theHuman Resources (HR) department in locating, evaluating, and employing talent has grown in importance as the IT landscape continues to change and develop. The hiring process in the IT sector has always placed a strong emphasis on standard procedures such jobadvertisements, resume reviews, and HR professional interviews. Although these techniques have had their uses, they frequently contain inefficiencies and other drawbacks associated with manual operations. Organizations are also under pressure to come up with more efficientand scalable methods for acquiring talent as the number of job candidates keeps rising and the battle for exceptional talent gets fiercer.

Artificial intelligence (AI) has become a game-changer, transforming conventional hiring procedures and changing how businesses find, bring in, and attract the top talent. AI-poweredsolutions provide more possibilities to improve decision-making, optimize workflows, and develop more effective and efficient hiring procedures in the rapidly evolving field of recruitment and selection.AI is primarily changing hiring by automating repetitive processes like candidate sourcing, resume screening, and preliminary evaluations. In a matter of seconds, AI algorithms will sort hundreds of resumes and job applications and select eligible applicants using previously determined standards, keywords, and patterns. This saves recruiters a great deal of time and effort when it comes to manual screening, freeing them up to concentrate on more tactical elements of the hiring process. It also improves the candidate experience by customizing interactions, giving immediate feedback, and making recommendations for jobs that are specific to each candidate's interests, abilities, and career goals. Natural language processing (NLP) technology-driven chatbots and virtual assistants can interact with applicants, continuously respond to their inquiries, and help them through the application process, making the process more streamlined and user-friendly.

Artificial Intelligence (AI) in hiring processes has great potential to improve decision-making,streamline hiring processes, and increase overall efficiency in the Indian IT sector. The incorporation faces a lot of challenges. The sector's fast-paced environment makes it necessary to identify and resolve certain barriers, such as outdated workflows that prevent theadoption of AI-driven models, the possibility of algorithmic bias in decision-making processes, worries about the associated costs involved, and the necessity of addressing data security and privacy issues, etc. To ensure that technology enhances human judgment in the hiring process rather than completely replaces it, organizations need to find a balance between human judgment and AI-driven efficiency.

2. Literature Review

The literature review was conducted using the keywords "challenges in using AI," "Hiring," and "IT Sector," even though there isn't much study on the difficulties in putting an AIrecruitment model into practice. To close the gap between employers and job seekers, an AI recruitment model was introduced for the Saudi labour market. With an 84% matching accuracy, AIRM exceeds humans in terms of time efficiency. This is a potential solution that makes use of a structured design and multiple machine learning algorithms. Concerns regarding generalizability are raised by its reliance on a simulated dataset and the

absence of Arabic language. Responsible implementation necessitates addressing ethical concerns such as bias and transparency through data curation and real-world testing. (Aleisa et al.,2023). The biggest concerns among business consultants are about the possibility of discrimination and the loss of human connection as a result of AI integration (Ginguta et.al.,2023).

AI-powered hiring procedures indicate a strong emphasis on the moral aspects, especially about possible prejudice. It is determined that biassed training data sets and biassed algorithm design by human algorithm designers are the two main sources of bias. The issues mentioned include algorithmic bias, data bias resulting from social injustices, human bias introduced during algorithmic design, and opaque decision-making that impedes the detectionand correction of prejudice. The investigation also emphasises how inadequate the current legal and regulatory structures are to handle ethical issues related to AI-powered hiring.(Chen,2023). AI has several possibilities in recruiting, but they also have limitations. Reliance on secondary data limits understanding of implementation and results in the actual world. Recognizing the worldwide influence of AI, their assessment does not go deeply into the particular difficulties of the Indian employment market. Moreover, their approach might be strengthened by adding actual research that show AI's tangible benefits on different recruitment phases. Building on their work and ensuring responsible AI adoption in Indian recruitment practices will require addressing these limitations through original research, case studies analyzing challenging and successful AI implementations in Indian companies, and development of ethical frameworks specific to the Indian context (Garg et.al.,2023).

AI in HRM

The application of artificial intelligence (AI) in human resource management (HRM) is discussed in detail, with special attention to how it affects the customary hiring procedures. The lack of a clear methodology and data sources further restricts the study's depth and generalizability (Okeyika et.al.,2023).This is the beginning of the Fourth Industrial Revolution, or Industry 4.0, as ArtificialIntelligence (AI) becomes more and more prevalent in society and company administration. AI-based solutions are being used more and more in the field of human resource management(HRM), offering value creation for businesses, consumers, and employees. HRM's goal of creating competitive advantages requires using AI-powered capabilities to improve decision-making, automate learning, and expedite repetitive procedures. However, there are drawbacks to using AI in HRM, like as worries about workers' perceived realization, technological stress, and ethical issues.(Luna, 2023). HR managers frequently find it difficult to integrate AI technologies with organizational strategies, which impedes their successful adoption even in spite of their apparent advantages. Concerns about job displacement and the valueof human connection in the hiring process persist despite the promise of intelligence augmentation and the synergy between AI and humans suggests that, even though AI may offer efficiencies, human involvement is still essential in fostering meaningful candidate interactions and mitigating potential biases (Abdelhay et.al.,2023). The lack of transparency in AI decision-making processes exacerbates the difficulties in addressing bias and guaranteeing accountability. In the actual world, biased AI tools can hinder diversity and creativity in businesses and harm those with limited opportunities (Vivek,2023). As AI in HR continues to evolve, it will become increasingly important for firms to employ AI responsibly and ethically (Harisha et.al.,2023).

There are benefits and drawbacks to integrating AI into hiring procedures. Even though artificial intelligence (AI) can automate high-volume graduate recruitment and significantly low hiring time, many prospective employees still prefer in-person interviews because they feel that automated approaches undervalue them. The worries about prejudice and exclusion endure since AI's ability to assess candidates' social, psychological, and intellectual qualities may inadvertently create new diversity issues and discriminate against seniors who are uneasy with online processes. Executives should concentrate on strategic efforts by using personnel management technologies to streamline talent evaluation, onboarding, and performance monitoring, even when it can be difficult to reach responders because of the confidential nature of their work. (Vedapradha et.al.,2023). Due to HR's inherent responsibility for managing vast amounts of organizational, human, and task-oriented data, AI is being included into many tactical HR procedures, sinceit improves sustainable business models. But with this evolution and expansion of capabilitiesalso comes the need to comprehend the level of AI in tactical HR operations today, necessitating a thorough reading of the literature by academics and HR practitioners which focuses on areas for development within the HR discipline as well as AI-enhanced HR capabilities(Votto et.al.,2023). Implementing AI could have a number of advantages, suchas simplifying repetitive tasks like data analysis and screening, encouraging more objective decision-making in talent acquisition and development, personalizing learning opportunities for staff members, and expanding candidate pools for talent acquisition. They also highlight important risks, like algorithmic bias that could result in discriminatory hiring practices, the lack of human oversight that could lead to dehumanization, worries about data privacy in AI-driven employee data collection, and the technical shortcomings of current AI technology in comprehending complex human behaviors.(Faqihi et.al.,2023). Social media sites like LinkedIn have a global reach that makes access to a variety of talent pools easier. They predicted a rise in the application of AI and other technologies in a variety of industries and job profiles, expressed doubts about AI's capacity to evaluate applicants accurately and emphasized the value of human connection. Identified concerns about the lack of transparency in decision-making and possible biases ingrained in algorithms.(Blumen et.al.,2023). The importance of analyzing bias in AI algorithms and the moral consequences of AI-driven initial interviews and candidate evaluations is highlighted by the ethical concerns that loom large. In addition, the abstract raises questions about the future of job applications, considering the possible obsolescence of standard resumes and arguing in favour of investigating alternative models and their effects on applicant representation and talent acquisition (Murgia et.al.,2023).

Analytical Hierarchy Process

AHP is typically applied to several ranking applications that are based on Multi-Criterion Decision Making. This technique is

used in this paper to rate the different hurdles that entrepreneurs have when starting their businesses. First, the tried-and-true AHP method, which provides a methodical and structured approach in contrast to more basic ranking systems. Second, the conclusions become more credible and broadly applicable whenindustry and academic experts are consulted. Furthermore, the AHP process's well-defined framework facilitates comprehension and possible replication (Gopi et.al.,2023). The use of the Analytical Hierarchy Process (AHP) in the assessment and ranking of creative ideas in a variety of industries. Their review, covering diverse academic investigations,illustrates both the intriguing possibilities and practical challenges connected with adopting AHP in this context (Taherdoost,2017). Numerous industries, including manufacturing and energy, have already experienced the successful application of AHP in discovering the most innovative and promising solutions (Samanaseh et.al.,2023).This methodology entails building an AHP framework with pertinent criteria and sub-criteria, obtaining expert opinions through pairwise comparisons from the banking sector, and obtaining client preferences through a survey. They prioritize various channel options by including both user and expert opinions into the AHP model. Thisgives banks important information about how to best understand customer preferences and create efficient electronic banking channels(Mishra et.al.,2015). The Analytical Hierarchy Process (AHP) and its potential as a trustworthy instrument for high-quality commercial decision-making, especially in areas where intuitive techniques are more common. They suggest using AHP's structured multi-criteria decision-making(MCDM) framework as a remedy after realizing the shortcomings of intuitive approaches. Their case study in Albania shows how AHP is useful in helping entrepreneurs prioritize theirproblems by providing a methodical and transparent approach (Canco et.al.,2021).

Challenges in implementing AI

The four primary challenges in the realm of recruitment, encompass insufficient candidate pools, uneven distribution of resources, outdated workflows, and inherent bias in the selection process. To address these issues, she proposes leveraging artificial intelligence (AI) to automate various tasks, enhance candidate selection procedures, streamline processes for greater efficiency, and facilitate fair assessments. The integration of AI into recruitment practices has the potential to revolutionize the entire process, from task automation to the strategic enhancement of candidate selection methodologies. While this could transform recruitment, there are concerns about the costs, availability of data, and whether organizationsare ready for these changes(Lundvall,2022). One of the main issues raised by the ethical questions around the use of artificial intelligence in hiring is bias. By using examples of algorithmic prejudice and unconscious biases ingrained in programmers' creation of AI systems, they highlight the potential for preexistingbiases in data to be perpetuated and amplified. Concerns about data security breaches, the opaqueness of AI decision-making, and the possibility of algorithmic profiling leading to discriminatory practices or surveillance highlight the ethical issue of data privacy as a major obstacle in the context of hiring procedures. Creating an interface for AI recruitment that is appealing to all stakeholders is another challenge.(Gupta et.al.,2022). According to the statistics, a considerable portion of recruiters are incorporatingAI into their work and expecting it to have a major impact on the industry. These features include applicant searching, resume screening, chatbot engagement, and interview analysis. The study emphasizes the role of trust in influencing user responses, including over trust (misuse) and under trust (disuse), highlighting potential difficulties in attainingbalanced dependence on AI-based tools (Lacroux et.al.,2022).Additionally, there are several racial and gender biases present in some AI applications, and ethical concerns(Budhwar et.al.,2022). Employers are becoming more aware of the possibility of algorithmic biases and stressing the need for responsible implementation that puts fairness and transparency first, raising ethical questions around AI prejudice. In the end, they makes a substantial contribution to our knowledge of AI adoption in the Indian recruiting market by supporting responsible implementation and ethical considerations as critical elements of AI integration(Mehrotra et.al.,2022) One major external concern that arises from the vulnerability of HR data systems to cyberattacks is the requirement for strong security measures to protect sensitive data.(Hossin et.al.,2021).While AI holds promise in enhancing decision-making and sustaining operational excellence, organizations must confront challenges related toalgorithmic bias, ethical considerations, and workforce adaptation (Hemalatha et.al.,2021)..The United States' current legislative frameworks provide only rudimentary protection against the gathering and use of employee data; this is indicative of a disjointed strategy that falls short of fully addressing the many ethical and regulatory issues that AI in the workplace raises(Kim et.al.,2021).Instead of the potential advantages that AI have, integrating it into the employment process also comes with a number of problems. Organizational contexts have challenges in adopting AI, despite the fact that it streamlines recruitment by automating administrative chores and facilitating resume review (Gilch et al 2021). Adapting to new technology developments, fostering AI system confidence, and resolving issues with cybersecurity and testing procedures are some of the challenges. Candidates' understanding of AI usage and alignment with business principles provide ethical challenges, which are further complicated by the high acquisition costs and technical know-how needed for implementation. The deployment of AI algorithms is made difficult by cultural nuances and inherent prejudices(Al-Alawi et.al.,2021). It was found that there was a slight correlation found between age, education, ethnicity, and organizational level (employee rank) and views of bias, awareness, trust, and transparency about the usage of AI in the hiringprocess(Wilkins,2021). There is a growing significance of AI in hiring procedures and a necessity to address ethical considerations and guarantee openness in algorithmic hiring techniques (Li et.al.,2021). The use of artificial intelligence (AI) in recruiting and selection is examined from the viewpoint of recruiters at a global company. AI can eliminate repetitive work and increase productivity, but recruiters are also worried about job displacement and the disappearance of the human aspect in hiring. Recruiters think AI can be a useful tool if applied properly, despite these reservations. Our comprehension of the possible advantages and disadvantages of AI in hiring and selection is aided by this study (Allam et.al.,2021). Artificial intelligence (AI) solutions have become essential tools for optimizing HR procedures, and enhancing productivity and efficacy throughout diverse organizational roles. AI has the

potential to greatly improve hiring judgments because of its capacity to reduce bias and perform skillful data analysis. Additionally, the use of this technology improves employer reputation by demonstrating a commitment to using state-of-the-art talent acquisition strategies and highlights organizational creativity (Kot et.al.,2021).Organizations may fully benefit from AIwhile promoting harmonious human-AI collaboration in HR operations by overcoming these obstacles and guaranteeing ethical deployment(Singh et.al.,2021). There are several difficulties in incorporating Artificial Intelligence into HR procedures in the Indian IT industry. One of the main issues noted is the growing dependence on AI to handle sensitive HR data, raising worries about applicant privacy and the possibility of data security breaches. In order to guarantee impartial and equitable candidate evaluations, the review highlights the problem of algorithmic bias and the necessity of taking preventative action. The financial investment necessary for the successful integration of artificial intelligence is a notable obstacle. This investment includes expenditures associated with technology, infrastructure, and hiring qualified staff. An issue that arises from AI deployment in HR procedures is ethical considerations, which call for a careful balance between justice, transparency, and the possibility of job displacement(Verma et.al.,2020). AI is being utilised in hiring more and more, but others are worried that this could unfairly punish some groups. This is due to the fact that AI systems are susceptible to biases found in the training data, which frequently mirrors societal injustices already in place (Turkeli,2020). These prejudices may then result in biassed recruiting practices that exclude qualified candidates. The design of AI hiring tools should prioritise fairness. This would involve training the AI ona variety of datasets, taking into account the historical background of prejudice, and includinganti-bias mechanisms into the software's architecture (Yarger et.al.,2020). AI adoption highlights the benefits, promising increased efficiency through accelerated hiring procedures, strengthened quality assessments, and real-time candidate skill evaluations, all of which cut time-to-hire and improve candidate selection quality. On the other hand, difficulties still exist, most notably the inability to replicate human connection and emotional intelligence, which are essential forsubtle candidate evaluation. Additionally, the opaqueness of AI decision-making processes increases the potential of discriminatory employment practices being perpetuated due to inherent biases in data or algorithms. This raises ethical and transparency problems. A major obstacle that may affect employee acceptance and adoption rates is how employees view AI-driven recruitment.(Thakur et.al.,2020). Organizations face a variety of obstacles when using AI into the hiring process. Maintaining data privacy and ethical standards is a major worry because AI tools collect personal information that can go beyond the requirements of hiring, which could result in discrimination and privacy violations. Retaining candidates' trust and resolving worries about algorithmic decision-making require transparent hiring procedures powered by AI. AI technologies in hiring procedures creates financial uncertainty, especially for smaller businesses that must carefully weigh the advantages and disadvantages before committing. Therefore, even though AI presents exciting recruitment potential, resolving these complex issues is essential to its successful adoption and uptake in the sector.(Javed et.al.,2020). Biases in machine learning applications, like candidate rating and facial recognition, have been demonstrated in several research. Over the past five years, this has sparked intense research on the subject of fairness in machine learning(Mujtaba,2020). Hiring AI systems present serious obstacles for job searchers with disabilities, mostly because of their discriminatory procedures and prejudiced algorithms. Inadequate objective specification during design is the root cause of biases in AI systems, which frequently mirror employment practices in the past that have disadvantaged people with disabilities. Inadvertent bias perpetuation can occur when algorithms and training data favor candidates from famous colleges or underrepresent diverse profiles. These difficulties are made worse by improper use of AI technology, as recruiters may merely rely on automated tools without taking into account the unique requirements of each candidate or implementing the required post-hire modifications for candidates with disabilities(Nugent et.al.,2020). One of the main obstacles in this regard is the need for large amounts of accurate data to efficiently train AI models. Concerns about AI algorithms' innate biases are also important since they have the potential to unintentionally reinforce unfair hiring procedures by enhancing prejudices seen in previous data sets.(Wright et.al.,2019) Despite AI's advancements, human qualities like as empathy, discernment, and sophisticated decision-making continue to be crucial for tackling these issues and guaranteeing impartial and efficient hiring procedures (Nawaz et.al.,2019). Although AI holds great promise for optimizing and enhancing HRM procedures, points out important obstacles. Accurate AI deployment has been hindered by the inherent complexityof organizational dynamics and human behavior, as well as by data limits and potential biases. Its integration is made more difficult by moral and legal issues about accountability, openness, and justice. In addition, cautious thought and communication techniques are required to overcome employee resistance brought on by worries about losing their jobs or a lack of confidence in AI decision-making (Yawalkar et.al.,2019).AI is becoming more and more used in HR recruitment as a result of the requirement to draw in skilled workers in a highly competitive market. But integrating AI comes with obstacles and interruptions that call for thoughtful planning and cautious management(Savola et.al.,2019).It is also a major economic aspect since the job market is today driven by candidates. On the other hand, for the recruiter, this means a less "failed occupationality" and a more enjoyable job where they can focus only on the prospect and, by applying their expertise of psychology and management, act more like a career counselor than a headhunter. Instead of being worriedthat robots will replace them, HR professionals should embrace technology to their advantage(Rab-Kettler et.al.,2019).The development of AI technologies, like Pymetrics, has streamlined the hiring process at every level, from finding candidates to choosing ones. Through analysis emphasizes the necessity of a measured approach to AI adoption in hiring, one that recognizes the technology's revolutionary potential while maintaining the knowledge and customization provided by HR specialists(Dijkkamp,2019). Employers are interacting with candidates in a whole new way because of chatbots, which also expedite administrative work and increase productivity. To efficiently filter qualified candidates, chatbots may read resumes, have one-on-one conversations, and ask preprogrammed questions. This greatly cuts down on the time recruiters need to spend on preliminary screening. They make it easier to schedule interviews, qualify individuals based on their experiences and talents, and update candidate databases. In

general, the incorporationof chatbots and artificial intelligence into the hiring process has enhanced the candidate experience and made work easier for recruiters, all of which have contributed to the successof companies in the digital age.(Nawaz et.al.,2019).The problem of protecting sensitive candidate data from potential breaches and guaranteeing transparency in AI algorithms balances out the potential enhancement in the candidate experience through AI's personalized interactions. However, data security and privacy issues will need to be addressed. Harnessing the full potential of AI in HR requires addressingethical considerations, which include bias mitigation and responsible technology use(Michailidis,2018). There are four main obstacles to overcome before artificial intelligence (AI) can fully realize its potential in human resources (HR): employee resistance to AI-driven decisions, ethical concerns about justice and responsibility, limited and potentially biased data, and the intrinsic complexity of human dynamics. By addressing these issues and carrying out additional studies,firms can minimize the risks associated with AI in HR while maximizing its potential(Cappelli et.al.,2018).

The study has the following objectives

- To analyze the challenges associated with implementing AI-driven hiring in the IT sector. ● To prioritize those challenges associated with implementing an AI-driven hiring model

The various challenges identified as part of the literature review is depicted in the figure1.1.CHALLENGES IN IMPLEMENTING AI-DRIVEN HIRING MODEL

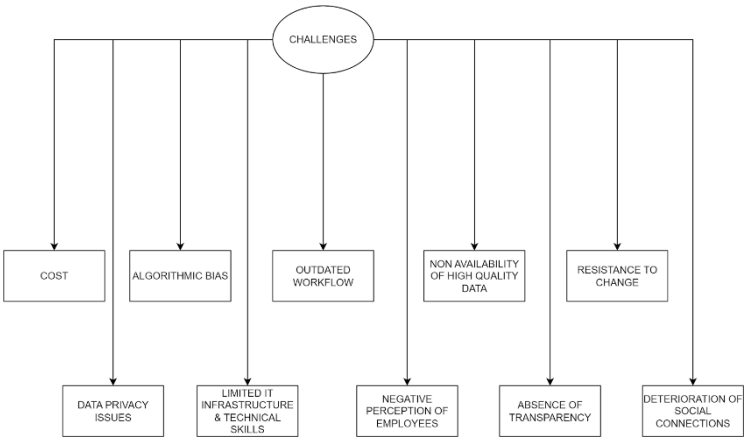

Figure 1.1 *Challenges in Implementing AI-Driven Hiring Model*
(Source: *Author***)**

3. Overview of the Challenges Identified

1. **Cost:** Associated costs include the money needed to establish, manage, and develop AI-driven hiring throughout its existence. This includes costs associated with data management, which include the storage and security of massive datasets needed for AI training. Since the AI needs a lot of processing power and specialized knowledge to learn from the data, training itself is expensive. Additionally, there is the procurement of technology, which may entail the acquisition of particular software licences or even internal development. To guarantee that the AI performs as intended, continuous support—including maintenance, updates, and possibly human oversight—is required to keepit operating successfully.

2. **Algorithmic Bias:** Hiring practices using AI may be affected by algorithmic prejudice. This occurs because AI models are trained on data sets, and the AI will pick up on and magnify any biases in those sets. For example, an algorithm trained on recruiting data that shows historically that men were hired more often for engineering posts may begin to excluderesumes from women based on characteristics that might not accurately reflect engineering ability. This may result in a skewed evaluation of applicants, leaving out competent people only because their data doesn't match preconceived notions.

3. **Outdated Work Flows:** Many businesses continue to use outdated hiring procedures that were intended for a different age. Despite being common, these procedures might not work with AI-powered hiring technologies. For example, if resumes are just screened for keywords, qualified candidates using other terminology may not be found. Long application forms with general questions also cause delays and hinder qualified applicants. Outdated workflows are problematic because they put obstacles in the way of AI. Large,well-structured datasets are ideal for AI to find patterns in and forecast outcomes from. AI finds it challenging to evaluate applicant eligibility in traditional paper-based applications or unstructured data dumps.

4. **Non-Availability of High-Quality Data:** The quality and applicability of the data that AI recruiting algorithms are educated on is crucial. This is a significant difficulty because it can be hard to find the correct kind of data. Similarly to this, an AI with poor data quality may give importance to irrelevant details on a resume—such as decorative fonts—instead of notable qualifications or experience. As a result, hiring decisions may be skewed and imprecise, missing out on qualified

applicants or elevating unfit individuals. Therefore, developing efficient and equitable AI hiring tools requires guaranteeing access to a sizable pool of high-quality data, such as historical performance ratings or successful candidate profiles.

5. **Resistance to Change:** Recruiters who are used to working with traditional methods may be concerned about the potential effects of AI on their job and their capabilities. This ignorance may lead to fear and reluctance to use the new technology. A comfort with familiar and deep-rooted habits can make organizations resistant to change if they have a history of doing things a specific way. The adoption of AI hiring models may be slowed down by this cultural challenge.

6. **Data Privacy Issue:** While AI-powered hiring is a useful tool for screening applicants, it also presents serious security and privacy issues. Enormous databases including sensitivedata, such as background checks, resumes, and CVs, may be involved. If not managed carefully, this data can be misused and compromised. Furthermore, if trained on incorrect information, AI models themselves may develop prejudice and result in unfair employment practices. Organizations must give data security with strong encryption and access controls priority if they want to guarantee the ethical application of AI in hiring. Additionally, they must have candidates' express consent and be open and honest about how they utilise thedata.

7. **Limited IT Infrastructure & Technical Skills:** While AI-powered employment solutions have the potential to simplify the hiring process, many organizations lack thetechnical know-how and strong IT infrastructure necessary to put them into practice. Integrating AI into the employment process becomes difficult without a solid foundation of data storage, processing power, and general IT systems. Moreover, a lack of technical expertiseamong employees may make it difficult for businesses to set up, manage, and analyze the data produced by AI hiring tools. This lack of technical expertise may restrict AI's potential advantages for the hiring process and reduce its efficacy.

8. **Negative perception of Employees:** The growing application of AI in management is posing a serious challenge to contemporary businesses. Three major areas of the workexperience are causing concern for employees as AI becomes more and more integrated into procedures and decision-making. The first big concern is job security. Workers worry that AI may automate jobs that are now done by people, which could result in job losses. A loss of autonomy is a worry, too. Employees may feel less in control of their everyday operationsand less empowered to make decisions if AI sets work rules and objectives. These unfavorable opinions may diminish production and morale, which in turn could harm the organization's ability to succeed.

9. **Absence of Transparency:** An opaque decision-making process in artificial intelligence can be hidden in secrecy. This implies that it's challenging, if not impossible, to comprehend how an AI system makes its decisions or suggestions. The system's inner workings are hidden from view, equivalent to a "black box," making it impossible for humans to determine the precise variables and computations that affect the result. Concerns regarding accountability, fairness, and overall AI trust are raised by this lack of transparency. Without understanding the AI's thought process, we cannot determine whether it is biassed or operating under incorrect logic.

10. **Deterioration of Social Connections:** AI's ascent raises a possible dilemma about social interaction. Even if AI increases productivity and automates jobs, it may unintentionally erode the same bonds that make human connection so beneficial. We may engage less in person as a result of our growing reliance on AI-powered virtual assistants and communication tools in social situations. Strong interpersonal ties, which depend on indirect signals, empathy, and the shared experiences that come from in-person engagement, may be hampered by this decrease in direct interaction.

4. Research Methodology

This study looks into the challenges that Indian IT companies have when trying to use AI hiring algorithms. It employs a mixed-methods approach, integrating both objective and subjective data, and makes use of the Analytic Hierarchy Process (AHP) for prioritization andanalysis. The initial phase in the research process is a comprehensive examination of the literature to determine the unique difficulties in applying AI hiring models in the Indian IT industry. After that, a pairwise comparison matrix that lists these factors will be created. HR specialists will next be shown this matrix to get their opinions and weighting for each component. The gathered data will next be evaluated using Analytic Hierarchy Process(AHP) methods to determine the relative importance of these various factors. This will finallyhighlight the biggest obstacles Indian IT companies are facing in using AI-based hiring. Data is gathered from primary HR professional experts which is the most reliable source of information. obtained with HR's straightforward method. The research work has made use of primary data.

This research discussed with HR specialists to obtain important insights on the difficulties associated with AI driven hiring in the Indian IT business. Professionals from important Indian IT centers, such as Trivandrum, Kochi, Bangalore, Pune were specifically targeted. We concentrated on a sample of eight HR experts who worked in diverse organisations around India for the study's quantitative component. By incorporating both male and female employees from various regions of the country, this sample was guaranteed to represent a wide spectrum of viewpoints. Original data obtained directly from HR professionals is given priority in this study (primary data). The primary goal is to rank the most important obstacles to AI hiring in the Indian IT industry. To do this, these aspects are analysed and ranked according to their relative importance to overall efficiency using the Analytic Hierarchy Process (AHP) technique.

Delphi procedure is used to collect data. Before the AHP tool's analysis, responses are coded and data entered. First, a datasheet with the metrics used to calculate efficiency was generated, and the HR representative's comments were noted. Then, depending on their efficiency, they were rated. The analysis also reveals the causes for efficiency, with one item evidently at the top of the rating scale.

Profile of Experts

Table1.1 *Profile of Experts*

Sl. No	Years of Experience	Profile
1	10.5 years	HR Manager, Travanleo Info Solutions India Pvt. Ltd.
2	10 years	HR Specialist, PwC
3	18 years	HR Manager, Quest Global
4	17 years	Talent Acquisition Specialist, Infosys
5	10 years	HR Manager, Polus Software Pvt. Ltd.
6	10 years	HR Manager, UST Global
7	17 years	HR Manager, Allianz Technology
8	15 years	HR Manager, Big Binary

(Source: *Author***)**

Pairwise Comparison Matrix

To determine which criteria are more important than which, the Analytic Hierarchy Process (AHP) uses a pairwise comparison matrix. The important levels in this matrix are representedby the numbers 1 through 9, where 1 denotes equal relevance and higher values, such as 3 formoderate importance, 5 for strong importance, 7 for extremely strong importance, and 9 for extreme importance. An equal amount of weight is assigned to each item when compared to all other factors only once, producing a square matrix with diagonal elements that are always 1.

Data Collection Process

1. Describe the problem and goals
2. Create the framework for making decisions.
3. Provide a list of appropriate evaluation criteria for the specified objective. These areselected after the literature has been evaluated.
4. Establish hierarchical levels
5. Make pairwise comparisons according to the advice of the expert.
6. Compile a set of matrices for pairwise comparisons and generate the matchingnormalized matrices.
7. Determine the component weights, or priorities
8. Verify consistency and establish the factor's overall weights.
9. Compile the final ranks.

Questionnaire Development

An AHP questionnaire is used in the research survey. All of the major factors are included in the questionnaire, which is designed to collect expert pairwise comparison assessment. Using a nine-point rating system, the Delphi technique is used to gather data. When administering the questionnaires, all of the criteria are explained to the respondents.

Table 1.2 *Pairwise Comparison Table of AHP with Interpretation*

Intensity of Importance	Definition	Explanation
1	Equal Importance	Two attributes contribute equally to theobjective
3	Moderate Importance	Experience and judgement slightly favorone activity over another
5	Strong Importance	Experience and judgement strongly favorone activity over another
7	Very Strong Importance	An activity is favored very strongly overanother
9	Extreme Importance	The evidence favoring one activity over another is of the highest possible order of affirmation
2,4,6,8	Intermediate Values	When compromise is needed

(Source: *https://www.researchgate.net/)*

A square matrix representing the relative relevance of each element about all others will be created from the pairwise comparisons obtained from the AHP questionnaire. This matrix is shown below:

$$A = \begin{bmatrix} a_{11} & a_{12} & \dots & \dots & a_{1m} \\ a_{21} & a_{22} & \dots & \dots & a_{2m} \\ \dots & \dots & \dots & \dots & \dots \\ \dots & \dots & \dots & \dots & \dots \\ a_{m1} & a_{m2} & \dots & \dots & a_{mm} \end{bmatrix} = \begin{bmatrix} 1 & a_{12} & \dots & \dots & a_{1m} \\ a_{21} & 1 & \dots & \dots & a_{2m} \\ \dots & \dots & 1 & \dots & \dots \\ \dots & \dots & \dots & 1 & \dots \\ a_{m1} & a_{m2} & \dots & \dots & 1 \end{bmatrix}$$

Where a_{ij} = the relative significance of criteria i compared to criteria j; $a_{ij} = 1$ where i = j; and $a_{ji} = 1/a_{ij}$ where i≠j.

For any criterion i and j, the equation wi/wj = aij can be used to estimate the relative importance of weights (wi and wj) when a consistency network (represented by matrix A) is utilised. The most crucial stage after creating the decision-making framework is figuring out which weights best represent the priorities of the decision maker.

The system's eigenvectors and eigenvalues are examined to accomplish this. Saaty (1994) asserts that theeigenvectors hold an important clue to determining these weights. By taking into account the following equation, we may compute them:

A * w = n * w,

where, w=vector containing the desired relative weight for each criterion.n=scalar value related to the no. of eigenvalues.
A=Consistency Matrix
Eigenvectors can be determined by working out the solution to (A – λ I) * w = 0where, λ=Eigen value
I=Identity Matrix

Eigenvalue (λ max) is obtained from the equation Aw = λ max(w), in where w is the weight vector and A is the consistency matrix. The degree to which the weight comparisons agree with one another is known as consistency. We compute the Consistency Ratio (CR) and Consistency Index (CI) in order to quantify this.

Consistency Index (CI): The formula to calculate the consistency index (CI) is CI = (λ max - m)/(m - 1), where m is the number of criteria that need to be compared. Greater inconsistencyis indicated by a larger CI value.

Consistency Ratio (CR): Divided by a random index (RI) unique to the number of criteria (m), CR is a more reliable metric. A calculation of CR is CR = CI / RI. A CR score of 0.1 or less indicates that the weight judgements are consistent enough.

There are significant inconsistencies in the pairwise comparisons if the Consistency Ratio (CR) is higher than 0.1. In these situations, might need to go again and make adjustments to the findings to make sure they make more sense. The number of criteria (m) being compared determines the values of the Random Index (RI). The reference tables for the AHP approach contain established RI values.

Calculation in AHP

1. Creating the Comparison Matrix

Comparison matrices are made using data from surveys, or questionnaires. Matrix A, or a square matrix, is the outcome of pairwise comparisons if 'm' factors are being taken into account. Prioritizing each element in relation to the others' relevance will help you fill up this matrix.

2. Weight Calculation

Normalize the pairwise comparison matrices after the calculations are finished to ensure consistent weighting. To do this, divide each matrix element by the total of the column that corresponds to it. The values in each row of the normalized matrix can then be averaged to getthe weights for each criterion.

3. Examining Consistency

To evaluate the consistency of the weight judgements, we compute a Consistency Ratio (CR).To do this, apply the following formula:

CR =CI / RI.

Where, Consistency Index, or CI, is a metric for inconsistency. Random Index, or RI, is a reference value that depends on how many criteria are used. Acceptable consistency in the weight judgements is shown by a CR value of less than 0.1, which is the generally acknowledged criterion.

Table 1.3 *Matrix Size vs Random Index*

Size ofMatrix	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
RandomIndex	0.00	0.00	0.58	0.90	1.12	1.24	1.32	1.41	1.45	1.49

(Source: *https://www.researchgate.net/)*

5. Consistency Check

This procedure confirms that each factor's weight is consistent. It makes use of the weight itself, its average, consistency ratio, eigenvalue (lambda), and reference value (which might be an index chosen at random). It is determined that the matrix (lattice) is consistent if the computed Consistency Ratio (CR) is smaller than 0.1.The aggregate expert opinions of eight IT specialists about human resources (HR) are examined in this study. The below table displays the HR review's match-shrewd comparison network and associated variables. Based on the data acquired from the pairwise comparisons, weights for each HR evaluation criteria were established using the Analytic Hierarchy Process (AHP) technique. Every response produced a Consistency Ratio (CR) of less than 0.1, according to the research. As appropriate consistency is often indicated by CR values less than 0.1, the pairwise comparison matrices of the decision-makers can be considered reliable.

Comparison Matrix

Table 1.4 *Comparison Matrix*

Challenges	Cost	AB	OW	NAD	RTC	D.P	L.I	NPE	AOT	DOS
Cost	1	5	3	2	5	3	4	3	3	3
AB	0.2	1	0.5	0.33	0.5	0.33	0.33	0.5	0.5	0.25
OW	0.33	2	1	0.25	0.5	0.33	0.5	0.5	0.5	0.33
NAD	0.5	3	4	1	3	2	3	2	3	2
RTC	0.2	2	2	0.33	1	0.5	2	0.33	2	3
D.P	0.33	3	3	0.5	2	1	2	3	4	3
L.I	0.25	3	2	0.33	0.5	0.5	1	0.5	0.5	0.33
NPE	0.33	2	2	0.5	3	0.33	2	1	3	2
AOT	0.33	2	2	0.33	0.5	0.25	2	0.33	1	0.5
DOS	0.33	4	3	0.5	0.33	0.33	3	0.5	2	1
Total	3.82	27	22.5	6.08	16.3	8.58	19.83	11.67	19.5	15.42

(Source: *Author***)**

Normalized Decision Matrix

Table 1.5 *Normalized Matrix*

Challenges	Cost	AB	OW	NAD	RTC	D.P	L.I	NPE	AOT	DOS	(CW)
Cost	0.26	0.19	0.13	0.33	0.31	0.35	0.2	0.26	0.15	0.19	0.24
AB	0.05	0.04	0.02	0.05	0.03	0.04	0.02	0.04	0.03	0.02	0.03
OW	0.09	0.07	0.04	0.04	0.03	0.04	0.03	0.04	0.03	0.02	0.04
NAD	0.13	0.11	0.18	0.16	0.18	0.23	0.15	0.17	0.15	0.13	0.16
RTC	0.05	0.07	0.09	0.05	0.06	0.06	0.1	0.03	0.1	0.19	0.08
D.P	0.09	0.11	0.13	0.08	0.12	0.12	0.1	0.26	0.21	0.19	0.14
L.I	0.07	0.11	0.09	0.05	0.03	0.06	0.05	0.04	0.03	0.02	0.05
NPE	0.09	0.07	0.09	0.08	0.18	0.04	0.1	0.09	0.15	0.13	0.1
AOT	0.09	0.07	0.09	0.05	0.03	0.03	0.1	0.03	0.05	0.03	0.06
DOS	0.09	0.15	0.13	0.08	0.02	0.04	0.15	0.04	0.1	0.06	0.09

Consistency Matrix

Table 1.6 *Consistency Matrix*

Challenges	Cost	AB	OW	NAD	RTC	D.P	L.I	NPE	AOT	DOS	WSV	CW	Ratio
Cost	0.24	0.17	0.13	0.32	0.41	0.4	0.2	0.3	0.17	0.26	2.65	0.24	11.04
AB	0.05	0.03	0.02	0.05	0.04	0.05	0.02	0.05	0.03	0.02	0.36	0.03	12
OW	0.08	0.07	0.04	0.04	0.04	0.05	0.03	0.05	0.03	0.03	0.45	0.04	11.25
NAD	0.12	0.1	0.17	0.16	0.24	0.28	0.16	0.21	0.17	0.17	1.8	0.16	11.25
RTC	0.05	0.07	0.09	0.05	0.08	0.07	0.11	0.03	0.12	0.26	0.93	0.08	11.63
D.P	0.08	0.1	0.13	0.08	0.16	0.14	0.11	0.31	0.23	0.26	1.6	0.14	11.43
L.I	0.06	0.1	0.09	0.05	0.04	0.07	0.05	0.05	0.03	0.03	0.58	0.05	11.6
NPE	0.08	0.07	0.09	0.08	0.24	0.05	0.11	0.1	0.17	0.17	1.17	0.1	11.7
AOT	0.08	0.07	0.09	0.05	0.04	0.04	0.11	0.03	0.06	0.04	0.61	0.06	10.17
DOS	0.08	0.13	0.13	0.08	0.03	0.05	0.16	0.05	0.12	0.09	0.92	0.09	10.22

(Source: *Author***)**

Table 1.7 *List of Factors*

Factors	Abbreviation
Cost	Cost
Algorithmic Bias	AB
Outdated Workflow	OW
Non-availability of high-quality data	NAD
Resistance to changes	RTC
Data Privacy issues	D.P
Limited IT Infrastructure & Technological skills	L.I
Negative Perception of Employee	NPE
Absence of transparency	AOT
Deterioration of social connections	DOS

(Source: *Author***)**

Results
Consistency Index (CI) = (λmax - m)/(m - 1)
(11.23-10)/(10-1)=**0.14**

Consistency Ratio =CI / RI
0.14/1.49=**0.09**

Ranking of factors identified as Challenges:

Table 1.8 *Ranking*

Challenges	Criteria Weight	Rank
Cost	0.24	1
Non-availability of high-quality data	0.16	2
Data privacy issues	0.14	3
Negative perception of employees	0.10	4
Deterioration of social connections	0.09	5
Resistance to change	0.08	6
Absence of transparency	0.06	7
Limited IT Infrastructure and technicalskills	0.05	8
Outdated Workflow	0.04	9
Algorithmic bias	0.03	10

(Source: *Author*)

Algorithmic bias ranks last out of all challenges since it is not considered a significant obstacle in comparison to other challenges by the experts.

Criteria Weight Chart

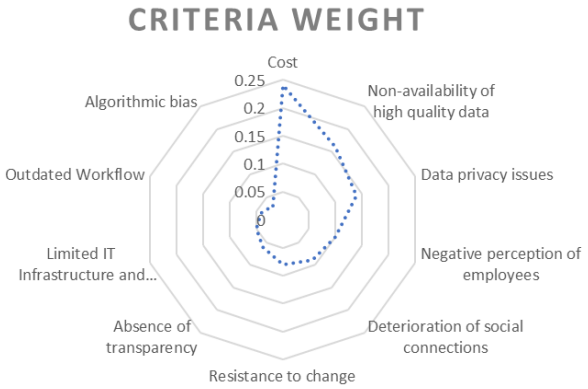

Figure 1.2 *Criteria Weight Chart*
(Source: *Author*)

This graph generally illustrates the various challenges and the relative weight of each criterion. The relative importance of each task is indicated by the weight allocated to it. A larger weight denotes a more serious issue that needs more consideration.

6. Findings

It is clear that the primary barrier limiting the implementation of AI-driven hiring in the IT industry among the challenges is cost. AI hiring practices frequently involve up-front expenses for devices, software, and possibly employing data scientists or other experts. There may also be continuous expenses for upkeep and improvements. Integrating an AI-driven hiring model with current HR systems might be difficult and expensive. Educating HR personnel on how to use the new system also raises costs. Although many other challenges affect AI hiring, HR professional's experiences and their knowledge indicates that cost is the organization's biggestobstacle.

7. Conclusion

The primary goal of this study was to list and rank the major barriers preventing AI-driven hiring models from being implemented in the IT industry. The Analytic Hierarchy Process (AHP) offered a strong framework for classifying and assessing these difficulties accordingto importance. The results show that the main obstacle preventing AI hiring from being widely used in IT organizations is cost. On the other hand, the AHP analysis ranks algorithmic bias as the least critical threat, even though it is still a concern. Companies can take proactive measures prior to implementation, such as investigating

cost-effective solutions, investing in data collection and cleaning, addressing data privacy concerns, and promoting the advantages of AI among employees,etc..by identifying and prioritizing the challenges associated with AI-driven hiring models in the IT sector.

8. Recommendations

Although the study was IT-focused, future research might examine the difficulties and top concerns in applying AI-driven hiring models to other sectors of the economy.This would offer a more comprehensive viewpoint on how AI hiring is being adopted by various industries.

9. References

1. Abdelhay, S., Korany, H., Marie, A., Fareen, N., & Rahim, A. (2023). Artificial Intelligence Applications in the recruitment process opportunities and challenges. Eur.Chem. Bull, 2023(7), 1008–1019.
2. Al-Alawi, A. I., Naureen, M., Alalawi, E. I., & Naser Al-Hadad, A. A. (2021). The Role of Artificial Intelligence in Recruitment Process Decision-Making. 2021 International Conference on Decision Aid Sciences and Application, DASA 2021, 197–203.
3. Aleisa, M. A., Beloff, N., & White, M. (2023). Implementing AIRM: a new AI recruiting model for the Saudi Arabia labour market. Journal of Innovation andEntrepreneurship, 12(1).
4. Alexis Megan Votto, Valecha, R., Raghav Rao, Paul Rad,& Keeton, K. (2023). The intersection of Artificial Intelligence in Human Resource Management: An explorationof talent communication of philosophy in Information Technology with a concentration in Artificial Intelligence and Machine Learning committeemembers. Int. J. Inf. Manag. Data Insights, 1, 100047.
5. Allam, S., 2021. AI-Assisted Hiring Process and Older Workers: An Exploratory Study", International Journal of Emerging Technologies and Innovative Research (www. jetir. org), ISSN, pp.2349-5162.
6. Baena Luna, P. (2023). Opportunities (but also Challenges) in Applying Artificial Intelligence to Human Resource Management within Companies. Revista CEA, 9(20),e2777.
7. Blumen, D., & Cepellos, V. M. (2023). Dimensions of the use of technology and Artificial Intelligence (AI) in Recruitment and Selection (R&S): benefits, trends, and resistance. Cadernos EBAPE.BR, 21(2).
8. Budhwar, P., Malik, A., De Silva, M. T. T., & Thevisuthan, P. (2022). Artificial intelligence–challenges and opportunities for international HRM: a review and research agenda. In International Journal of Human Resource Management (Vol. 33, Issue 6, pp. 1065–1097).
9. Canco, I., Kruja, D., & Iancu, T. (2021). Ahp, a reliable method for quality decision making: A case study in business. Sustainability (Switzerland), 13(24).
10. Cappelli, P., Tambe, P., & Yakubovich, V. (2018). Artificial Intelligence in Human Resources Management: Challenges and a Path Forward. California ManagementReview, 61(4), pp.15-42.
11. Chen, Z. (2023). Ethics and discrimination in artificial intelligence-enabled recruitment practices. In Humanities and Social Sciences Communications (Vol. 10, Issue 1). Springer Nature.
12. Dijkkamp (2019)The Recruiter of the Future, a Qualitative Study in AI Supported Recruitment Process.Ideal Research, 3(1), pp.56-65.
13. Faqihi, A., & Miah, S. J. (2023). Artificial Intelligence-Driven Talent Management System: Exploring the Risks and Options for Constructing a Theoretical Foundation. Journal of Risk and Financial Management, 16(1).
14. Garg, A., Kangri Vishwavidyalaya, G., Gaur, S., & Sharma, P. (2023). A Review Paper: Role of Artificial Intelligence in Recruitment Process. International Journal of Management and Information Technology, 33-37.
15. Ginguta, A., Ștefea, P., Noja, G. G., & Munteanu, V. P. (2023). Ethical Impacts, Risks and Challenges of Artificial Intelligence Technologies in Business Consulting: A NewModelling Approach Based on Structural Equations. Electronics (Switzerland), 12(6).
16. Gilch, P. M., & Sieweke, J. (2021). Recruiting digital talent: The strategic role of recruitment in organisations' digital transformation. German Journal of Human Resource Management, 35(1), 53–82.
17. Gopi, J., & Subramoniam, S. (2023). Establishing the Relative Importance of Challenges in Early-stage Entrepreneurship using Analytical Hierarchy Process. Business Perspectives and Research. P.22785337221148884.
18. Gupta, A., & Mishra, M. (2022). Ethical Concerns While Using Artificial Intelligence in Recruitment of Employees. Business Ethics and Leadership, 6(2), 6–11.
19. Harisha, B.S., Venkataswamy, K.P., Devi, R.M., Govindaraj, G.S. and Bhandwalkar, S.S., 2023. The Role Of Artificial Intelligence In Hr: Transforming Recruitment And Hr Operations. Boletin de Literatura Oral-The Literary Journal, 10(1), pp.1374-1384.
20. Hemalatha, A., Kumari, P. B., Nawaz, N., & Gajenderan, V. (2021). Impact of Artificial Intelligence on Recruitment and Selection of Information Technology Companies. International Conference on Artificial Intelligence and Smart Systems (ICAIS) (pp. 60-66). IEEE.
21. Hossin, S., Arije Ulfy, M., Ali, I., Karim, W., & Karim, M. W. (2021). Challenges in Adopting Artificial Intelligence (AI) in HRM Practices: A study on BangladeshPerspective. International Fellowship Journal of Interdisciplinary Research, 1(1), 66–73.

22. Ihsan Türkeli (2020).Artificial Intelligence in Recruitment: the ethical implications of AI-powered recruitment tools. International Fellowship Journal of Interdisciplinary Research, 1(1), 88-95.
23. Javed, A., & Brishti, J. K. (2020). The viability of AI-based recruitment process. Journal of emerging technologies1(1):11-18.
24. Kim, P. T., Noyes, D., Professor Of Law, K., Bodie Callis, M. T., & Bodie, M. T. (2021). Artificial Intelligence and the Challenges of Workplace Discrimination and Privacy. Journal of Labor and Employment Law, 35(2), pp.289-315.
25. Kot, S., Hussain, H. I., Bilan, S., Haseeb, M., & Mihardjo, L. W. W. (2021). The role of artificial intelligence recruitment and quality to explain the phenomenon of employer reputation. Journal of Business Economics and Management, 22(4), 867–883.
26. Kumar, V. U., Mohan, A., Kumar, B. S. S. P., Ponnala, R., Sateesh, B., & Sai Maruthi,

P. D. (2021). Analysis and Issues of Artificial Intelligence Ethics in the Process of Recruitment. Proceedings - 2nd International Conference on Smart Electronics and Communication, ICOSEC 2021, 733–738.

27. Lacroux, A., & Martin-Lacroux, C. (2022). Should I Trust the Artificial Intelligenceto Recruit? Recruiters' Perceptions and Behavior When Faced With Algorithm-Based Recommendation Systems During Resume Screening. Frontiers in Psychology, 13.
28. Li, L., Lassiter, T., Oh, J. and Lee, M.K., 2021, July. Algorithmic hiring in practice: Recruiter and HR Professional's perspectives on AI use in hiring. In Proceedings of the 2021 AAAI/ACM Conference on AI, Ethics, and Society (pp. 166-176).
29. Lundvall, H. (2022.). Artificial Intelligence in Recruitment: Opportunities and Challenges of Implementing Artificial Intelligence in today's Recruitment Processes. Journal of Innovation and Entrepreneurship, p. 64.
30. Mehrotra, S., & Khanna, A. (2022). Recruitment Through AI in Selected Indian Companies. Metamorphosis: A Journal of Management Research, 21(1), 31–39.
31. Michailidis, M. P. (2018). The Challenges of AI and Blockchain on HR Recruiting Practices. Cyprus Review, 30(2), pp.169-180.
32. Mishra, V., & Singh, V. (2015). Selection of appropriate electronic banking channel alternative: Critical analysis using analytical hierarchy process. International Journal of Bank Marketing, 33(3), 223–242.
33. Misra, S., & Panda, R. K. (2017). Environmental consciousness and brand equity: An impact assessment using analytical hierarchy process (AHP). Marketing Intelligence and Planning, 35(1), 40–61.
34. Mujtaba, D.F., (2020). Fairness in AI-based Recruitment and Career Pathway Optimization. Michigan State University. Journal of Business Research, 110, 42–50.
35. Murgia M; Raval A (2023)AI in Recruitment the Death Knell of the CV. Journal of Management and Information Technology, 21-25.
36. Nawaz, N., & Gomes, A. M. (2019). Artificial Intelligence Chatbots are New Recruiters. In IJACSA) International Journal of Advanced Computer Science and Applications (Vol. 10, Issue 9).
37. Nawaz, N. (2019). Artificial intelligence interchange human intervention in the recruitment process in Indian software industry. International Journal of Advanced Trends in Computer Science and Engineering, 8(4), 1433–1442.
38. Nugent, S., Jackson, P., Scott-Parker, S., Partridge, J., Raper, R., Shepherd, A., Bakalis, C., Mitra, A., Long, J., Maynard, K., and Crook, N. (2020). Recruitment AI has a Disability Problem: questions employers should be asking to ensure fairness in recruitment. Institute for Ethical Artificial Intelligence. Journal of IntelligentManagement Decision, 3(1), 1–14
39. Okeyika, K.O.,Ibeto, V. C.,Okere, A. I., & Umoh, B. (2023). The application ofArtificial Intelligence(AI) in human resource mangement: Current state of AI and its impact on the traditional recruting process. AKU: An african journal of contemporary research,4(3),2023.
40. Rab-Kettler, K., & Lehnervp, B. (2019). Recruitment in the Times of Machine Learning. Management Systems in Production Engineering, 27(2), 105–109.
41. Samanaseh, V., Noor, Z. Z., & Mazlan, M. A. (2023). The application of analytic hierarchy process for innovative solution: A review. IOP Conference Series: Earth andEnvironmental Science, 1143(1).
42. Savola, H., Troqe, B., & Gebauer, H. (2019). Recruiters just wanna have...AI? Implications of implementing AI in HR recruitment. International Fellowship Journal of Interdisciplinary Research, 25(1), 75–88.
43. Singh, A., & Shaurya, A. (2021). Impact of Artificial Intelligence on HR practices in the UAE. Humanities and Social Sciences Communications, 8(1).
44. Taherdoost, H. (2017).Decision Making Using the Analytic Hierarchy Process (AHP); A Step by Step Approach. International Journal of Economics and ManagementSystems, 2.
45. Thakur, Sharma(2020)The Role of Artificial Intelligence in Organizations for Recruitment Process: A Review. vol, 13, pp.74-76.
46. Vedapradha, R., Hariharan, R., David Winster Praveenraj, D., Sudha, E., & Ashok, J. (2023). Talent acquisition-artificial intelligence to manage recruitment. E3S Web of Conferences, 376.
47. Verma, R., & Bandi, S. (2019). Artificial Intelligence & Human Resource Management in Indian It Sector. In Proceedings of 10th international conference on digital strategies for organizational success. (pp. 409-417).
48. Verma, R., & Bandi, S. (2020). Challenges of Artificial Intelligence in human resource management in Indian IT sector. In XXI annual international conference proceedings (pp. 380-387).

49. Vivek, R. (2023). Enhancing diversity and reducing bias in recruitment through AI: a review of strategies and challenges. Economics. Management, 2(4), 0101–0118.
50. Wilkins, L.M., 2021. Artificial Intelligence in the Recruiting Process: Identifying Perceptions of Bias. Available at SSRN 3953428
51. Wright, J. and Atkinson, D., (2019). The impact of artificial intelligence within the recruitment industry: Defining a new way of recruiting. Carmichael Fisher, pp.1-39.
52. Yawalkar, V. V, Vivek, M., & Yawalkar, V. (2019). A Study of Artificial Intelligenceand its role in Human Resource Management. International Journal of Research and Analytical Reviews (IJRAR), 6(1), pp.20-24.
53. Yarger, L., Cobb Payton, F. and Neupane, B., 2020. Algorithmic equity in the hiring of underrepresented IT job candidates. Online information review, 44(2), pp.383-395.

10. Appendix

Questionnaire

Cost	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Algorithmic Bias
Cost	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Outdated Workflow
Cost	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Non availability of high quality data
Cost	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Resistance to change
Cost	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Data Privacy issues
Cost	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Limited IT Infrastructure and technical skills
Cost	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Negative perception of Employees
Cost	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Absence of transparency
Cost	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Deterioration of social connections

Algorithmic Bias	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Outdated Workflow
Algorithmic Bias	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Non availability of high quality data
Algorithmic Bias	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Resistance to change
Algorithmic Bias	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Data Privacy issues
Algorithmic Bias	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Limited IT Infrastructure and technical skills
Algorithmic Bias	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Negative perception of Employees
Algorithmic Bias	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Absence of transparency
Algorithmic Bias	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Deterioration of social connections

Outdated Workflow	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Non availability of high quality data
Outdated Workflow	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Resistance to change
Outdated Workflow	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Data Privacy issues
Outdated Workflow	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Limited IT Infrastructure and technical skills
Outdated Workflow	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Negative perception of Employees
Outdated Workflow	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Absence of transparency
Outdated Workflow	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Deterioration of social connections

Non availability of high quality data	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Resistance to change
Non availability of high quality data	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Data Privacy issues
Non availability of high quality data	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Limited IT Infrastructure and technical skills
Non availability of high quality data	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Negative perception of Employees
Non availability of high quality data	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Absence of transparency
Non availability of high quality data	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Deterioration of social connections

Resistance to change	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Data Privacy issues
Resistance to change	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Limited IT Infrastructure and technical skills
Resistance to change	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Negative perception of Employees
Resistance to change	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Absence of transparency
Resistance to change	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Deterioration of social connections

Data Privacy issues	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Limited IT Infrastructure and technical skills
Data Privacy issues	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Negative perception of Employees
Data Privacy issues	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Absence of transparency
Data Privacy issues	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Deterioration of social connections

Limited IT Infrastructure and technical skills	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Negative perception of Employees
Limited IT Infrastructure and technical skills	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Absence of transparency
Limited IT Infrastructure and technical skills	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Deterioration of social connections

Negative perception of Employees	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Absence of transparency
Negative perception of Employees	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Deterioration of social connections
Absence of transparency	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Deterioration of social connections