AI-Driven Hiring Decisions with Topic Modeling in the Experience Economy – A Review-based Approach

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This study examines the transformative impact of artificial intelligence (AI) on human resources (HR) practices in the IT sector. By analyzing the development of AI and its growing dominance in employment areas, particularly recruitment, employee management, and performance measurement, the study aims to assess the efficiency and effectiveness of AI-based processes. There must be a relationship between AI-based marketing and HR Practices to enable a positive customer experience through employee branding. Through the integration of past studies and empirical investigation, this research contributes to an enhanced understanding of the role of AI in developing HR practices and its implications for organizational success within the dynamic IT industry environment.

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Introduction

The technology trends revolutionizing business and society as a whole are reportedly driving game-changing improvements in individuals' productivity and performance. IT organizations are under pressure to leverage digital technologies and adapt their business models to meet the demands of this new digital landscape. Embracing artificial intelligence and other components of digital transformation has become a key objective for IT organizations (Reis et al., 2020). Artificial Intelligence mimics human brain intelligence. It refers to the process of developing machines that can act and think like humans. It is the key driver of productivity and creativity in IT firms (Rani et al., 2023a).

In today's digital world, organizations are expanding and

enduring by creating new ideas such as digital tools and technologies which include AI and hiring software, management software, and performance management software. Less labor and more machine handling are the outcomes of innovation. AI technology is now employed by human resource managers to recruit, hire, and encourage talented employees, which is profitable for the organization as well as the individual (Geetha et al., 2018). Corporate and HR managers apply AI to enable employees, with 50% mentioning enhanced consistency and quality as the main aim, as per a survey conducted in 2022. Apart from that, twenty-six per cent replied that AI assists employees by boosting productivity and sixteen per cent replied that it expands ideas (Rani et al., 2023b). As technology advances, there will be more demand than ever before for skilled and adaptable employees who are capable of addressing the challenges of the digital world.

In this setting, the way executives find, assess, and onboard talent is being revolutionized by the introduction of Artificial Intelligence into the decision-making process. Due to its ability to automate, expedite, analyze, and make decisions based on data, artificial intelligence has emerged as a crucial component. AI can instantly scan hundreds of profiles, judge a candidate's potential by considering their online credentials, and filter out profiles that do not meet the search criteria (Chowdhury et al., 2023). Some advantages of implementing AI have been claimed, including enhancing business productivity via resource and operation optimization (Faulds & Raju, 2021); reengineering or business model transformation (Duan et al., 2019); employing predictive intelligence in decision-making (Paschen et al., 2020) reducing employee expenses, and enhancing employee experience, job satisfaction, and customer service.

AI is being increasingly implemented in HR functions, including video and text-based recruitment screening technology (Pena et al., 2020). Recruiters can manage and screen applicants more efficiently, reducing the time it takes to hire new employees and accelerating the overall hiring process. It is generally recognized that initial impressions play a crucial role in the recruitment process, as they influence recruiters' judgments of a candidate's personality and suitability for the firm. Interviewers tend to draw conclusions based on limited information, a phenomenon referred to as subjective bias. Subjective factors, such as an applicant's appearance, race, gender, or age, may influence the perception during an interview. Firms employ AI decision-making to avoid subjective bias and ensure objectivity and fairness in hiring processes, besides cost savings and efficiency (Köchling et al., 2021).

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It is important to note that AI is not meant to replace managers but aims to assist HRM decisions. These choices are candidate assessment, performance man-

agement, career planning, succession planning, internal communication tailoring, and sense-making of comments (Radonjiæ et al., 2022). AI enhances employee quality by training and developing employees according to industry requirements. AI is applied in HR processes like recruitment, training, performance appraisal, and employee retention. Artificial Intelligence creates a state-of-the-art technological working environment in which staff and organizational systems engage harmoniously (Sivasubramanian et al., 2023). Personalized HRM, utilizing advanced HR analytics and AI, tailors HR practices to individuals, offering a competitive advantage and improving organizational performance. (Huang et al., 2023)

As highlighted by Murugesan et al. (2023), artificial intelligence plays an integral part in onboarding processes. Chatbots and virtual assistants based on AI can assist new hires immediately by providing them with information on IT business culture, policies, and even technical support. AI-based technology onboarding provides quicker adaptation of new hires into the organization's culture. This leads to better decision-making, improved organizational performance, and improved HR operational procedures.

The recruiting and selection process plays a significant role in the success of an organization. According to a study by Arif et al. (2021) job satisfaction, staff retention, and organizational effectiveness are all significantly affected by the recruitment process. Organizations can enhance profitability, customer satisfaction, and productivity by recruiting and selecting qualified candidates. A robust recruitment and selection process can also attract the best talent and enhance the employer's image; therefore, adopting artificial intelligence is one of the latest trends in recruiting and selecting employees (Hewage, 2023).

Background of the Study

This study explores the capability of AI-driven leadership decisions in IT recruitment. The study is worried about increasing reliance on AI tools for recruitment when making organizational outcomes. By tracing the evolution of recruitment practices, the study endeavors to understand how AI reshapes traditional HR practices and attains the highest customer satisfaction using the right recruitment, which demonstrates the experience economy. It discusses new developments in AI technology for their capability to make things more efficient, effective and bias-free. As positive as the potential benefits may be, there is no abundance of evidence available to show that AI-enabled recruitment procedures in IT assisted in the enhancement of recruitment outcomes. Deciding between investing in and employing this technology for recruitment processes has become more challenging due to this ambi-

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guity for IT organizations. This study aims to enlighten practitioners and scholars alike, casting light on the intricate relationship between AI, leadership, and recruitment practices in the ever-changing environment of the IT industry. This research also resonates with the previous research that was undertaken by Chen, (2023); Venkatesh et al. (2019); Albassam, (2023); Dwivedi et al. (2021); Malin et al. (2023)

Review of Literature

Out of all, one of the most important aspects of HR management is hiring potential people. Sourcing, screening, and hiring potential personnel are essential strategic decisions for an organization's growth. Recruiters invest their effort into pursuing and evaluating prospective candidates' qualifications. The time-consuming process of shortlisting, interviewing, and evaluating prospective candidates, if automated using AI, has the potential to be a game changer (Dixit et al., 2022).Artificial Intelligence is a computer-based system, or robotic system, which is designed to process information and generate outcomes in the same manner that organizational staff utilize their learning, decision-making, and problem-solving abilities to accomplish things. Artificial Intelligence is attracting a great deal of attention. Potentially, AI is the algorithmic examination of all types of processes (Roger, 1987).

Decision-making is a human activity that has significant impacts. AI-integrated decision-making is widely used to assist decision-making in the workplace. AI has made talent acquisition simpler by collecting the data and sending it to the talent acquisition group in a simple manner to analyze data and make decisions based on the information acquired. AI came into play as there are numerous amount of data received that organizations feel cannot be easily managed. Thus, AI plays a pivotal role in decision-making. Decision-making through AI is based on AI fairness, ethics, diversity, and bias. Traditional recruitment is good, but modern recruitment through AI's help for scanning and gathering information about the employees is beneficial. Decision-making plays a critical role in the success and achievement of an organization and therefore, several companies have begun incorporating AI into decision-making to leverage technological benefits in hiring. (Al-Alawi et al., 2021)

Technology keeps developing at an exponential pace. In these situations, numerous IT companies have emerged to overcome the challenge. To make the most out of this resource, a company needs to have productive HRM practices in place. One great employee will do the work of several average employees. IT companies want to hire and retain such individuals. But doing so is not easy. It requires resources like people and time. They lack the labour and time they can use in successful human resource practices. It examines Human Resource Management approaches like employee hiring, job placement, employee motivation, and HR decision-making. The remedy involves the application of various artificial intelligence technologies to support an organization's decision-making (Athukorala et al., 2020).

The most challenging task of any management role is identifying an effective candidate who is qualified enough to fill the job and has the required skill set to deliver the organization's goals and objectives. Here, Managers are much needed. Good human resource managers must understand the goals, strategies, processes, and conditions of organizations and plan the pool of candidates for new millennial employees who can and are appropriate for themselves within the organization's framework (Geetha et al., 2018).

AI helps companies design jobs that align with workers' interests and skill sets, create SMART goals, and improve employment by providing scope for professional development. AI increases workforce deployment and collaboration, allowing companies to make informed decisions that increase the motivation of employees. AI promotes leadership behavior by providing managers with continuous and real-time feedback and insights, allowing them to find opportunities for development and serve their people more effectively. AI can further allow companies to connect with their people better by delivering personalized guidance, improving communication, automating repetitive tasks, and offering real-time feedback. Broek et al (2021) stated in their research that, Human Resources department is the key stakeholder responsible for making sure that there was fairness in the recruitment process before the deployment of the AI application. They considered it their duty to reduce the potential impact of this moral violation in the workplace and perceived personal prejudice, or the biasing effect of one's interests on judgments, as the biggest threat to justice. The HR department argued that an unbiased hiring process would yield a greater pool of talent to draw upon as well, with the added benefit of being consistent with the firm's international mission of workplace diversity and inclusion.

Analyzing applications is a time-consuming and repetitive task for HR departments, making it challenging to provide equal focus to each candidate. Sensor technology, including cameras and microphones, gathers and analyzes human verbal and nonverbal behavior with the help of AI. An AI derives the candidate's personality profile from their facial expressions, such as smiles, head movements, and word count in language, as well as topic modeling, complexity, variety, and prosodic features like pitch, intonation, and pauses. The main objectives are to minimize unconscious bias and enhance consistency in decision-making.(Köchling et al., 2021).

One of the primary advantages of AI-based resume screening is the removal of bias from the hiring process. Hiring managers can analyze resumes objectively through a single skills intelligence platform that eliminates the possibility of recruiting decisions being made based on human biases, allowing them to make data-driven, skills-driven decisions. This is important since AI-driven testing ensures that all applicants are assessed equally and without bias, which is essential when recruiting for diversity and equal opportunities. (Chen, 2023)

Lengthy recruitment processes are a significant issue for the recruitment sector, as they often result in top candidates being lost to competitors with faster recruitment processes. The process of hiring must be streamlined to avoid inconvenience to recruiters and candidates alike. According to Gartner (2022), it now takes 18% longer to fill a vacancy, an additional two weeks. HR managers can reduce burdens related to recruitment, increase productivity, and decrease the number of rejected job offers by applying AI to automate mundane tasks. AI is capable of saving time on different recruitment-related activities such as writing reports, evaluating applicants, and communicating with them. Recruiters can quickly fill vacancies by focusing on the most suitable candidates using AI suggestions. (Allal-Chérif et al., 2021).

Experience Driven Economy

Artificial Intelligence strategically enhances customer experiences by transforming engagement, leveraging predictive analytics, and enabling personalized interactions.(Sunday Tubokirifuruar Tula et al., 2024). Talent is a core resource driving competitiveness and sustainability, and the concept of Talent Relationship Management emphasizes building long-term relationships through positive candidate experiences, which can enhance employer branding and talent retention.(Rožman et al., 2023) Managers are encouraged in the competition of high-value talents to apply some marketing principles- use frameworks that would create for them a 4Ps (Product, Price, Place, and Promotion) like compelling job offer and long-lasting employment relation, thereby improving firm performance stability. (Schweitzer & Lyons, 2008).AI technologies, such as machine learning and natural language processing, have transformed business operations by optimizing decision-making processes, automating tasks, and providing valuable insights, although challenges like data privacy and algorithmic bias remain.(Rimon, 2024).With digitalization and improvements in AI, recruiting efficiency has been enhanced greatly. Therefore, managers must adapt AI-enabled recruiting systems as these are no longer an option but an essential element, from being optional to mandatory.(Black & van Esch, 2020).The accuracy of AI feedback, influenced by both HR and marketing strategies such as feedback orientation, enhanced adaptive selling behaviors and organizational commitment, improves employee performance and customer engagement, which are the key drivers of the experience-driven economy(Hall et al., 2022). AI-based hiring brings the right talent and enhances customer satisfaction in the experience-driven economy.

Research Methodology

Using the Elsevier Scopus database, a total of 147 publications were found through advanced Boolean operators. The search terms used were "Artificial intelligence (AI)," "Human resources (HR) or recruiting or hiring," "Decision making or leadership hiring," and "IT industry or information technology." A methodical screening of the records was

done using the PRISMA framework (Page et al., 2021). After filtering the records, a collection of 23 papers was included in the systematic literature review following the database filtering. This review provides a comprehensive evaluation of published works to identify trends and research gaps.

The final collection of papers was chosen by the authors using strong inclusion and exclusion criteria. Peer-reviewed journal publications authored in English and published between 2019 and 2024 regarding the effectiveness of AI in leadership hiring met the inclusion criteria. Papers that did not directly address the effectiveness of AI in hiring leaders were excluded from consideration. The 147 papers were narrowed down to 23 papers, and all those papers were entitled to Python topic modeling using the LDA approach. The Python coding was run in Google Colab and all 23 papers are grouped into five clusters namely AI Algorithms and Human Interaction, AI in HRM, AI and Decision-making in HRM, AI in Recruitment and Debiasing, Risk Management and AI in HRM. All these five clusters will drive the experience economy in bringing the utmost customer satisfaction.

PRISMA Framework

The papers were narrowed down to 147 through systematic evaluations. Fig. 1 demonstrates how the PRISMA framework was adhered to throughout the selection process. An Excel spreadsheet

Fig. 1 PRISMA CHART

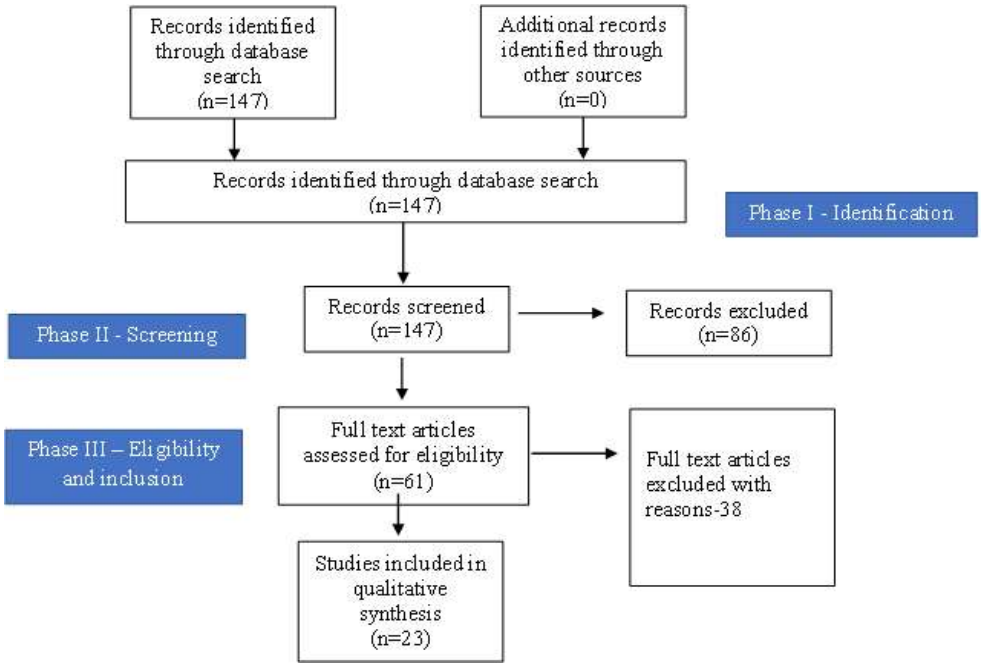
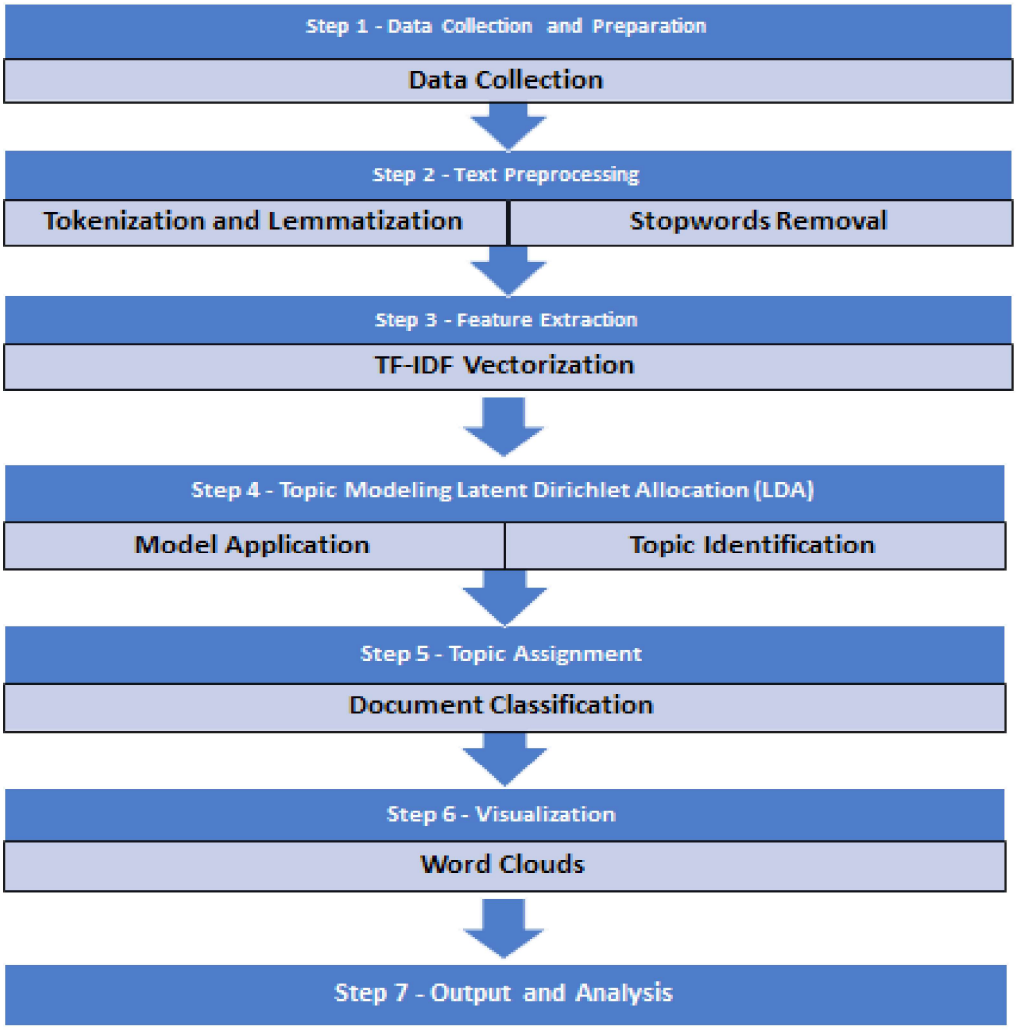


Fig. 2 Topic Modeling Approach



was created and a list of 23 journal publications was organized. Based on their significance in the body of existing research, the publications were grouped into five areas after the analysis of the findings.

The PRISMA framework put forward a methodical summary of the steps involved in identifying, screening, and including studies for a qualitative synthesis of artificial intelligence effectiveness.

Phase 1, Identification of the procedure included the identification of 147 entries using a database search.

Phase 2: Screening comprised the preliminary evaluation of these 147 records to determine their relevance and

Table 1 Article Reviewed -Cluster Wise Synthesis As per Topic Modeling (Python)

Focus Area	Author	Title	Findings
AI Algorithms and Human Interaction	Malin et al (2023)	In the AI of the Beholder—A Qualitative Study of HR Professionals' Beliefs about AI-Based Chatbots and Decision Support in Candidate Pre-Selection	AI can assist with nearly every stage of the hiring process, providing organizations with a competitive advantage, reducing the workload of human resources professionals, and enhancing the candidate application experience.
	Choung et al(2023)	When AI is Perceived to Be Fairer than a Human: Understanding Perceptions of Algorithmic Decisions in a Job Application Context	People have a more favorable view towards algorithmic decision making especially in evaluating the candidates. When the outcome was favorable, there were minimal differences between the two decision-making approaches. These findings suggest a preference for algorithmic decision-making, highlighting the need for new theories on human-machine interaction that recognize the agency of both.
	Aydýn et al (2023)	An AI-Based Shortlisting Model for Sustainability of HRM	The AI-based shortlisting model improves HR management sustainability by maximizing processes of candidate selection. The model applies AI algorithms to filter potential candidates with maximum efficiency, maximizing recruiting success without sacrificing environmental and social sustainability standards, thus improving the quality and responsible use of AI in HR activities.
	(Liu et al., (2023)	Speech production under uncertainty: how do job applicants experience and communicate with an Artificial Intelligence interviewer?	A typical recruitment process includes screening through resumes, virtual or physical interviewing, performance appraisal, assessment of aptitude for the role, and making an-offer. Here, the authority to decide resides entirely with human recruiters. Today, most companies have started making use of artificial intelligence to inform part or all of the recruitment processes. AI decision-making is based on data and may prove hard for human beings to understand. Consequently, with AI being used to evaluate candidates, inform, and even make final hiring, decision-making power in recruit-

			ment shifts from human beings to machines.
	Yam et al. (2021)	From human resources to human rights: Impact assessments for hiring algorithms	Assessing the impact plays an essential role in identifying and correcting biases that dissolve equity and fairness. Assessing the impact seeks to ensure that recruitment algorithms promote human rights by providing transparency, accountability, and ethical conduct.
	Raisch et al (2021)	AI and Management: The Automation–Augmentation Paradox	While AI enhances work, it also enhances human ability through the addition of new roles and improved decision-making. The dilemma is to balance the efficiency of automation with augmentation's judgment and creativity. Effective management is to apply AI to augment human capability, enabling collaboration, and solving organizational and ethical problems.
AI in HRM	Soleimani et al (2021)	Mitigating Cognitive Biases in Developing Artificial Intelligence-Assisted Recruitment Systems	The authors proposed a knowledge-sharing approach to reduce cognitive biases in AI recruitment systems. They identify the requirement of collaborative learning between engineers, HR professionals, and stakeholders for the detection and prevention of biases. Their findings necessitate ongoing feedback loops, inclusive team engagement, and ongoing training to increase the fairness and efficiency of AI recruitment tools to enable more inclusive hiring.
	Tschang et al (2021)	AI as Augmenting Automation: Implications for Employment	AI may enhance productivity and generate new job opportunities but poses the risk of job displacement and skill gaps as well.
	Wuisan et al (2023)	Integrating AI in Human Resource Management: A Smart PLS Approach for Entrepreneurial Success.	AI integration in HR is a crucial strategy for organizations to attain entrepreneurial success in the evolving digital era. The impact of AI on various company operations has been at the centre of attention.
AI and Decision-Making in HRM	Qahtani et al (2023)	Assisting AI adoption drivers in human resources management: a mediation model	Applying AI in this field can greatly enhance efficiency and productivity. Embracing AI, as with other technologies, requires strict compliance with quality principles and processes.
	Gélinas et al(2022)	Artificial Intelligence in Human Resources Management: A Review	AI for human resource management boosts effectiveness in hiring, performance management, and employee engagement.

		and Research Agenda	Bias, ethical concerns, transparency, and accountability in AI solutions are important topics of future study and innovation.
	Alan (2023)	A Systematic Bibliometric Analysis on the Current Digital HRM Studies and Directions for Future Research	It presents current trends and future research in digital human resource management (HRM). The main findings are the greater focus on AI, data analytics, and employee well-being in HRM studies. Future research is to explore ethical concerns, incorporate future technology, and enhance organizational agility through digital HRM innovations.
	Starke et al (2022)	Fairness perceptions of algorithmic decision-making: A systematic review of the empirical literature	Transparency, explanation, bias detection, and control of users shape people's perceptions of fairness. Users often tend to believe algorithms are fair when they know the decision-making process works. Biases and a lack of transparency can create issues and perceptions of unfairness among users.
	Duan et al (2019)	AI for decision making in the era of Big Data – evolution, challenges, and research agenda	The major concerns are data quality, algorithm bias, ethical issues, and the demand for responsibility and transparency. It says the importance of integrating human judgment into AI systems.
	Araujo et al (2020)	In Artificial Intelligence we trust? Perceptions about automated decision-making by artificial intelligence	Trust in AI is based on the transparency, accountability, and justice perceived. People tend to trust AI more when the decisions are briefly explained and where there are safety nets. Concerns over bias, errors, and loss of human control all influence acceptability.
AI in Recruitment and debiasing Risk Management and AI in HRM	Chen (2023)	Collaboration among recruiters and AI: removing human prejudices in employment	Recruiters and AI integration can help reduce human prejudices in the hiring process. Through AI's capacity to provide objective data analysis, recruiters can make more equitable decisions, leading to a more balanced employment process and reducing the influence of subjective human biases.
	Drage et al. (2022)	Does AI Debias Recruitment? Race, Gender, and AI's "Eradication of Difference"	Though AI eliminates human biases, it can serve or even broaden existing differences. Biased training datasets, algorithmic errors, and the absence of diverse representation in technology development all contribute to this issue. The elimination of differences by AI in hiring processes remains complicated and disputed.

Anghel (2023)	New Perspective for Human and Artificial Intelligence Interactions for Leadership e-Recruitment	Traditional hiring practices, like job posting advertisements and waiting for applications on websites like Linked In and Indeed, may lead to inappropriate appointments, especially for managers, and may not be in the best interest of an organization in the long run. Therefore, there are negative impacts of these processes, and reforms are required in the form of AI in hiring practices.
(Huang et al., (2023)	Personalized HRM via HR analytics and AI: Theory and implications	Tailored HRM incorporates leading-edge analytics and AI to better manage HR and organizational results and thus constitutes the next HR management generation.
Arslan et al (2022)	AI and human workers interaction at the team level: a conceptual assessment of the challenges and potential HRM strategies	The problems at issue are trust, communication breakdown, and role definition. The solutions to the potential problems include creating a team collaboration culture, provision of AI literacy, and establishment of well-defined AI systems. The solutions to the problems are enhancing team chemistry, ensuring correct cooperation, and ensuring the best integration of AI in work teams.
Hu (2023)	Risk Prediction of Digital HRM Based on Artificial Intelligence	HR decision-making can be improved through the use of AI with predictive analytics, hiring outcomes, and evaluation of employee performance. In pursuit of fair and efficient HR processes, the obstacles must be avoided while deploying AI.
Kshetri (2021)	Evolving uses of AI in human resource management in emerging economies in the global South: some preliminary evidence	Initial studies indicate that AI implementation enhances recruitment effectiveness and performance measurement. Data privacy concerns and inadequate infrastructure are some of the issues.
Hauer et al.(2021)	A legal perspective on possible fairness measures – A legal discussion using the example of hiring decisions	The implications of AI algorithms for justice highlight openness, accountability, and non-discrimination. The research examines legal frameworks and barriers in ensuring equitable AI-based hiring practices, to inform policymakers and organizations on how to align AI applications with legal norms and ethical concerns.

Fig. 3 - Cluster 1 - AI Algorithms and Human Interaction

connection to the research. In this stage, 86 records were discarded. The full-text articles were evaluated.

Phase 3: Eligibility and Inclusion involved an in-depth review of the remaining data. This more thorough stage ensures that only the best and most relevant studies are featured, and 38 of the evaluated full-text articles were disqualified.

The final synthesis is built on the most reliable and relevant data accessible, as these studies have completed every stage of the screening and eligibility process. The papers were organized into industries, such as banking, education, tourism, COVID-19, healthcare, and human resources. Only the publications on HR were chosen from this classification. Still, articles in the HR category focused on functions other than Talent Acquisition and Hiring had been eliminated.

Discussion

AI has become an extremely useful asset in HR recruitment by streamlining processes, contributing data, and improving productivity. On the other side, AI integration in the recruitment process raises concerns about equity and the threat of replacing human decision-making. Using AI must be in a way such that the optimal benefits of its adoption are achieved while its weaknesses are minimized and therefore creating a balance between technology and human involvement should be ensured.

A balance between technology and human involvement should be ensured.

AI tends to help decrease the barriers to entry by taking up basic initial

procedures like resume screening or scheduling interviews. As a result, HR managers can focus on more value-adding processes, which include evaluating and engaging candidates. AI handles numerous datasets in such a way that humans do not help in making the right decisions. Hiring purely based on AI is vulnerable to inequality and prejudice. During the development stage, there are lots of responsibilities for AI systems as they can bias people if not properly developed and has transformed many aspects of the business life cycle and operations efficiency, including Human Resource management practices and routines.

While it improves efficiency by reducing time and inefficiencies, ethical, legal, and strategic challenges remain, along with concerns about trust from employees and management. (Rodgers et al., 2023).Though AI helps understand the process, it is important to take the intervention of people, and HR professionals, to measure the candidates fit to the company culture, and degree of interpersonal relations, and conduct interviews with applicants. By leveraging the benefits of both AI and human decision-making, HR can establish fairer, faster, and better recruitment processes. The cultural fit of the applicants will ensure the customer experiences.

Fig. 4 Cluster 2 - AI in HRM

The most outstanding advancement in Human Resources is the application of artificial intelligence. It increases productivity levels, helps in data-driven decision-making, and optimizes human resources processes. The most evident benefit is in the area of task automation, with AI helping to take over tedious processes like scheduling interviews or distributing the survey. This way, HR professionals can give more of their time to the strategic positioning of the organization in the market and developing employees. But, at the same time,

It is crucial that bias does not enter into the design and training of the algorithm, and that the algorithm outputs are evaluated.

the application of AI in HR presents other potential problems such as bias and discrimination. If the AI algorithm feeds on biased data, then there will be algorithm-induced discrimination. For instance, AI-run tools for conducting the screening of resumes could favor candidates from some ethnic groups if appropriate data are not used during development. To address these threats, it is crucial that bias does not enter into the design and training of the algorithm, and that the algorithm outputs are evaluated.

Another complication is the concern that AI could replace some types of human judgment, in decisions where people are hired. A key challenge of digital transformation is designing AI and integrating it into HRM processes in a way that prevents decision-makers from becoming overly reliant on AI-based decisions. (Malin et al., 2024).While AI in itself can be informative, one has to appreciate that some judgments regarding people's fitness for a particular position are quite complex and cannot solely depend on an AI's determination. Thus, while appreciating the merits of the technology, HR will recognize that incorporating AI into its operations without losing the human touch in the recruitment process will ensure a better experience for the customer during the marketing process.

Fig. 5 Cluster 3- AI and Decision Making in HRM

AI plays an important role in the automated decision-making process, providing data-driven insights. The keyword "Resources" could refer to automated resource allocation and deploying the right candidate in the right place based on their profile and expertise. AI can analyze employee information to determine which candidates are most valuable and who might be leaving the company based on the experiences which

they have. AI technology in hiring has a few drawbacks. If the data used to train AI is poor, the system may also be poor. To prevent this, it's important to follow the right procedures and policies when developing AI tools. AI decisions should be regularly checked to ensure fairness and accuracy. Another challenge is the potential of such technologies to substitute human judgment in decision-making processes. Intelligent automation technologies offer a new approach to managing employees and improving firm performance, providing both opportunities and challenges for HRM at technological and ethical levels, whereas the impact of automation is evident in the areas of job rotation, learning and development and human-ai interaction. (Vrontis et al., 2022).

Fig. 6 -Cluster 4 AI in Recruitment and Debiasing

The integration of artificial intelligence in the recruitment structure brings radical changes to the HR processes especially where bias in recruitment is concerned. Recruitment is affected by unconscious bias that affects choices based on such factors as gender, ethnicity, age, and even education diversity. By use of machine learning algorithms, AI can reduce bias in recruitment as people are evaluated based on their qualifications and skills only. The success of AI in bias and prejudice in recruitment greatly relies on the accuracy of the data and algorithms. In case the training and background data that is input into these systems and programs is already biased, it stands to reason that the resulting AI will be biased as well. That calls for the necessity for professionals dealing with human resources to guide the process of evaluating AI performance rather than leaving it to the systems. AI has the potential to enhance diversity management in organizations by delivering customized training, identifying areas for skill improvement, and decreasing unconscious bias in hiring and performance reviews.

AI will improve the efficiency of procedures like candidate background screening by relieving the HR specialists from the manual effort of doing this and engaging them with the human side of the work such as conducting interviews or assessing a cultural fit. AI will not replace all of the biases in hiring practices but will help to overcome some of the biases. The same would apply as AI gets more entrenched in recruitment: human resources will have to keep updating the practices over time making sure the implementation is fair and honest and addressing the issues of technology from diversity and inclusivity.

AI will not replace all of the biases in hiring practices but will help to overcome some of the biases.

Fig. 7 Cluster 5- Risk Management and AI in HRM

Artificial Intelligence is transforming risk management in the field of Human Resources which addresses the workplace challenges. It predicts employee attrition and also identifies the compliance risks which helps the policymakers in effective decision making. AI plays a very important role in the experience economy through experiences and not just by transactions. These AI-powered HR practices will tailor the employee experiences in personalized learning which will impact the customers in the right way. The keyword "Skill" shows, that employees should be adapted to the ongoing learning in the experience economy. The AI-driven HR tools identify the skill gaps and provide individual upskilling and reskilling plans which improves the experiences of both employees and the customers. The keyword "Fairness" shows that AI-driven HR practices will eliminate biases and promote AI-driven hiring and transparent performance evaluations. The rise of robotic process automation (RPA) and AI-

driven HR decision-making is reinventing the experience economy to give the best customer experience, especially in service-oriented industries. However, a slight human experience is needed to avoid employee disengagement.

Integration of AI-based Hiring & Marketing

Today's business and organizational setup is very complex and dynamic and has begun to depend on AI-based recruitment which in turn provides a positive result in raising customer experience in the experience economy. AI in HR can make the resume screening process better and ensure the cultural fit of the candidates in the organization. In addition to this, AI in marketing can deliver the best customer interaction. AI hiring will deliver improved customer satisfaction. AI-driven recruitment meticulously on board the candidates making each customer experience a master piece of satisfaction.

AI in marketing can deliver the best customer interaction.

AI use in recruitment activities in the IT industry has demonstrated strong benefits ranging from improved efficiency to diversity and reduction of bias in

Table 2: Applications of AI-Powered Recruitment in Diverse Sectors

Company	AI Application	Organizational Benefits	Service Delivery Impact
Unilever (FMCG)	AI-powered video interviews and assessments for 250,000 applicants across 68 countries. Uses Pymetrics for behavioral assessments.	Reduced recruitment time from 4 months to 2 weeks. Improved diversity, retention rates, and candidate satisfaction.	More efficient service and enhancing overall customer satisfaction.
Domino's (Service Sector)	AI reviews video interviews, analyzing facial expressions, body language, and word choice to predict success.	Reduced hiring costs, eliminated biases, improved decision-making, and boosted productivity and customer service.	Improves service consistency and quality by selecting the best candidates, leading to better customer experiences.
IBM (Technology)	Watson Recruitment is an AI-driven tool using predictive analytics to identify top talent.	Increased hiring efficiency, reduced hiring time by 30%, and improved quality of hires.	Ensures a more skilled, efficient workforce, directly impacting the quality of service and customer satisfaction.
Hilton (Hospitality)	AI chatbots for queries, feedback, and interview scheduling. Analyze facial expressions and body language of the candidates	Streamlined the process, increased the hiring rate by 40%, and enhanced the speed of the recruitment process.	Enhances guest experience by hiring more qualified hospitality staff quickly, improving guest experiences and operational efficiency.

Source: Adapted from Abhishek, Kaushik. (2025); AI Recruiting Success Stories. (2024).

delivering enhanced customer experience. AI application in hiring processes is a double-edged sword with potential benefits but also drawbacks. On the other side, AI can greatly contribute to diversity, fairness, and efficiency in hiring. On the downside, AI presents some fundamental concerns regarding privacy, transparency, and bias. To benefit from AI, organizations must embrace AI with an overall understanding of its advantages and disadvantages, highlighting the balance between automation and human input towards a holistic and efficient hiring process. A continuing study, conformity, and adherence to ethical principles is necessary to utilize AI for IT hiring effectively.

References

Abhishek, Kaushik. (2025), How AI Helps These 9 Companies Hire better. *AI Talent Assessment Platform - WeCP*. Retrieved February 18, 2025, from https://www.wecreateproblems.com/blog/companies-using-ai-for-recruitment#heading-2

AI Recruiting Success Stories. (2024, September 4), *LinkedIn*. Retrieved February 18, 2025, from https://www.linkedin.com/pulse/ai-recruiting-success-stories-manali-rajan-veling-hpv2f

AL Qahtani, E., & Alsmairat, M. (2023), "Assisting in the Adoption of Artificial Intelligence Drivers in Human Resources Management: A Mediation Model", *Acta Logistica*, *10*(1): 141–50. https://doi.org/10.22306/al.v10i1.371

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). https://doi.org/10.1109/DASA53625.2021.9682320

Alan, H. (2023). "A Systematic Bibliometric Analysis on the Current Digital Human Resources Management Studies and Directions for Future Research. *Journal of Chinese Human Resource Management*, 14(1): 38-59. https://doi.org/10.47297/wspchrmwsp2040-800502.20231401

Albassam, W. A. (2023), "The Power of Artificial Intelligence in Recruitment: An Analytical Review of Current AI-Based Recruitment Strategies", *International Journal of Professional Business Review*, *8*(6): e02089. https://doi.org/10.26668/businessreview/2023.v8i6.2089

Allal-Chérif, O., Yela Aránega, A., & Castaño Sánchez, R. (2021). "Intelligent Recruitment: How to identify, Select, and Retain Talents from Around the World Using Artificial Intelligence." *Technological Forecasting and Social Change*, 169, 120822. https://doi.org/10.1016/j.techfore.2021.120822

Anghel, D. (2023), "New Perspectives for Human and Artificial Intelligence Interactions for Leadership e-Recruitment" *Societies*, *13*(3): 55. https://doi.org/10.3390/soc13030055

Araujo, T., Helberger, N., Kruikemeier, S., & de Vreese, C. H. (2020), "In AI We Trust? Perceptions about Automated Decision-making by Artificial Intelligence", *AI & SOCIETY*, *35*(3): 611–23. https://doi.org/10.1007/s00146-019-00931-w

Arif, A., Hussain, M., Khan, N. A., & Ullah, H. (2021). "Impact of Recruitment and Selection on Job Performance of Employees in the Manufacturing Sector of Pakistan." *Pakistan Journal of Commerce and Social Sciences*, *15*: 107-121.

Arslan, A., Cooper, C., Khan, Z., Golgeci, I., & Ali, I. (2022), "Artificial Intelligence and Human Workers Interaction at Team Level: A Conceptual Assessment of the Challenges and Potential HRM Strategies", *Interna-*

tional Journal of Manpower, *43*(1): 75–88. https://doi.org/10.1108/IJM-01-2021-0052

Athukorala, C., Kumarasinghe, H., Dabare, K., Ujithangana, P., Thelijjagoda, S., & Liyanage, P. (2020), "Business Intelligence Assistant for Human Resource Management for IT Companies". *2020 20th International Conference on Advances in ICT for Emerging Regions (ICTer)*, https://doi.org/10.1109/ICTer51097.2020.9325471

Aydýn, E., & Turan, M. (2023), "An AI-Based Shortlisting Model for Sustainability of Human Resource Management", *Sustainability*, *15*(3): 2737. https://doi.org/10.3390/su15032737

Black, J. S., & van Esch, P. (2020), "AI-enabled Recruiting: What Is It and How Should a Manager Use It?" *Business Horizons*, *63*(2): 215–26. https://doi.org/10.1016/j.bushor.2019.12.001

Chen, Z. (2023), "Collaboration Among Recruiters and Artificial Intelligence: Removing Human Prejudices in Employment". *Cognition, Technology & Work*, *25*(1): 135–49. https://doi.org/10.1007/s10111-022-00716-0

Choung, H., Seberger, J. S., & David, P. (2023), "When AI is Perceived to Be Fairer than a Human: Understanding Perceptions of Algorithmic Decisions in a Job Application Context", *International Journal of Human–Computer Interaction*, 1–18. https://doi.org/10.1080/10447318.2023.2266244

Chowdhury, S., Dey, P., Joel-Edgar, S., Bhattacharya, S., Rodriguez-Espindola, O., Abadie, A., & Truong, L. (2023), "Unlocking the Value of Artificial Intelligence in Human Resource Management Through AI Capability Framework", *Human Resource Management Review*, *33*(1): 100899. https://doi.org/10.1016/j.hrmr.2022.100899

Dixit, S., Sharma, N., Maurya, M., & Dharwal, M. (2022), AI Power: Making Recruitment Smarter. https://doi.org/10.1007/978-981-19-2984-7_14

Drage, E., & Mackereth, K. (2022), "Does AI Debias Recruitment? Race, Gender, and AI's 'Eradication of Difference.'" *Philosophy & Technology*, *35*(4): 89. https://doi.org/10.1007/s13347-022-00543-1

Duan, Y., Edwards, J. S., & Dwivedi, Y. K. (2019), "Artificial Intelligence for Decision Making in the Era of Big Data – evolution, Challenges and Research Agenda", *International Journal of Information Management*, *48*: 63–71. https://doi.org/10.1016/j.ijinfomgt.2019.01.021

Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi, R., Edwards, J., Eirug, A., Galanos, V., Ilavarasan, P. V., Janssen, M., Jones, P., Kar, A. K., Kizgin, H., Kronemann, B., Lal, B., Lucini, B., … Williams, M. D. (2021), "Artificial Intelligence (AI): Multidisciplinary Perspectives on Emerging Challenges, Opportunities, and Agenda for Research, Practice and Policy", *International Journal of Information Management*, *57*: 101994. https://doi.org/10.1016/j.ijinfomgt.2019.08.002

Faulds, D. J., & Raju, P. S. (2021), "The Work-from-home Trend: An Interview with Brian Kropp" *Business Horizons*, *64*(1): 29–35. https://doi.org/10.1016/j.bushor.2020.10.005

Gartner. (2022). *Gartner Survey Finds only 19% of HR Leaders Are Prepared to Address a Shortage of Critical Talent*., https://www.gartner.com/en/newsroom/press-releases/2022-02-23-gartner-survey-finds-only-nineteen-percent-of-hr-leaders-are-prepared-to-address-a-shortage-of-critical-talent

Geetha, R., & Bhanu, S. R. D. (2018), "Recruitment Through Artificial Intelligence: A Conceptual Study", *International Journal of Mechanical Engineering and Technology*, *9*(7): 63-70.

Gélinas, D., Sadreddin, A., & Vahidov, R. (2022), "Artificial Intelligence in Human Resources Management: A Review and Research Agenda", *Pacific Asia Journal of the Asso-*

ciation for Information Systems, *14*: 1–42. https://doi.org/10.17705/1pais.14601

Hall, K. R., Harrison, D. E., Ajjan, H., & Marshall, G. W. (2022), "Understanding Salesperson Intention to Use AI Feedback and Its Influence on Business-to-business Sales Outcomes", *Journal of Business & Industrial Marketing*, *37*(9): 1787–1801. https://doi.org/10.1108/JBIM-04-2021-0218

Hauer, M. P., Kevekordes, J., & Haeri, M. A. (2021), "Legal Perspective on Possible Fairness Measures – A Legal Discussion Using the Example of Hiring Decisions", *Computer Law & Security Review*, *42*: 105583. https://doi.org/10.1016/j.clsr.2021.105583

Hewage, A. (2023), "Exploring the Applicability of Artificial Intelligence in Recruitment and Selection Processes: A Focus on the Recruitment Phase", *Journal of Human Resource and Sustainability Studies*, *11*(3): 603–34. https://doi.org/10.4236/jhrss.2023.113034

Hu, Y. (2023), "Risk Prediction of Digital Human Resource Management Based on Artificial Intelligence", *Journal of Computing and Information Technology*, 23–33. https://doi.org/10.20532/cit.2022.1005456

Huang, X., Yang, F., Zheng, J., Feng, C., & Zhang, L. (2023), "Personalized Human Resource Management via HR Analytics and Artificial Intelligence: Theory and Implications", *Asia Pacific Management Review*, *28*(4): 598–610. https://doi.org/10.1016/j.apmrv.2023.04.004

Köchling, A., Riazy, S., Wehner, M. C., & Simbeck, K. (2021), "Highly Accurate, But Still Discriminatory", *Business & Information Systems Engineering*, *63*(1): 39–54. https://doi.org/10.1007/s12599-020-00673-w

Kshetri, N. (2021), "Evolving Uses of Artificial Intelligence in Human Resource Management in Emerging Economies in the Global South: Some Preliminary Evidence.", *Management Research Review*, *44*(7): 970–90. https://doi.org/10.1108/MRR-03-2020-0168

Liu, B., Wei, L., Wu, M., & Luo, T. (2023), "Speech Production under Uncertainty: How Do Job Applicants Experience and Communicate with an AI Interviewer?" *Journal of Computer-Mediated Communication*, *28*(4). https://doi.org/10.1093/jcmc/zmad028

Malin, C. D., Fleiß, J., Seeber, I., Kubicek, B., Kupfer, C., & Thalmann, S. (2024). "The Application of AI in Digital HRM–An Experiment on Human Decision-making in Personnel Selection". *Business Process Management Journal*, *30*(8): 284-312.

Malin, C., Kupfer, C., Fleiß, J., Kubicek, B., & Thalmann, S. (2023), "In the AI of the Beholder—A Qualitative Study of HR Professionals' Beliefs about AI-Based Chatbots and Decision Support in Candidate Pre-Selection", *Administrative Sciences*, *13*(11): 231. https://doi.org/10.3390/admsci13110231

Murugesan, U., Subramanian, P., Srivastava, S., & Dwivedi, A. (2023). "A Study of Artificial Intelligence Impacts on Human Resource Digitalization in Industry 4.0". *Decision Analytics Journal,* 7, 100249. https://doi.org/10.1016/j.dajour.2023.100249

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021), "The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews", *British Medical Journal*, n71. https://doi.org/10.1136/bmj.n71

Paschen, J., Wilson, M., & Ferreira, J. J. (2020), "Collaborative Intelligence: How Human and Artificial Intelligence Create Value Along the B2B Sales Funnel", *Business Horizons*, *63*(3): 403–14. https://doi.org/10.1016/j.bushor.2020.01.003

Pena, A., Serna, I., Morales, A., & Fierrez, J. (2020), "Bias in Multimodal AI: Testbed for Fair Automatic Recruitment". 2020 IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), https://doi.org/10.1109/CVPRW50498.2020.00022

Radonjiæ, A., Duarte, H., & Pereira, N. (2022), "Artificial Intelligence and HRM: HR Managers' Perspective on Decisiveness and Challenges", *European Management Journal*. https://doi.org/10.1016/j.emj.2022.07.001

Raisch, S., & Krakowski, S. (2021), "Artificial Intelligence and Management: The Automation–Augmentation Paradox", *Academy of Management Review*, *46*(1): 192–210. https://doi.org/10.5465/amr.2018.0072

Rani, C., & Kajla, T. (2023), "Artificial Intelligence Applications in Human Resource Management". https://doi.org/10.4018/979-8-3693-0418-1.ch012

Reis, J., Amorim, M., Melão, N., Cohen, Y., & Rodrigues, M. (2020), "Digitalization: A Literature Review and Research Agenda". https://doi.org/10.1007/978-3-030-43616-2_47

Rimon, S. T. H. (2024), "Leveraging Artificial Intelligence in Business Analytics for Informed Strategic Decision-Making: Enhancing Operational Efficiency, Market Insights, and Competitive Advantage", *Journal of Artificial Intelligence General Science (JAIGS)* *6*(1): 600–24. https://doi.org/10.60087/jaigs.v6i1.278

Rodgers, W., Murray, J. M., Stefanidis, A., Degbey, W. Y., & Tarba, S. Y. (2023), "An Artificial Intelligence Algorithmic Approach to Ethical Decision-making in Human Resource Management Processes", *Human Resource Management Review*, *33*(1): 100925. https://doi.org/10.1016/j.hrmr.2022.100925

Roger C. Schank. (1987), What Is AI Anyway? file:///C:/Users/lenovo/Downloads/623-Article%20Text-620-1-10-20080128.pdf

Rožman, M., Tominc, P., & Štrukelj, T. (2023). "Competitiveness Through Development of Strategic Talent Management and Agile Management Ecosystems. Global Journal of Flexible Systems Management, 24(3), 373–393. https://doi.org/10.1007/s40171-023-00344-1

Schweitzer, L., & Lyons, S. (2008), "The Market Within: A Marketing Approach to Creating and Developing High-value Employment Relationships", *Business Horizons*, *51*(6): 555–65. https://doi.org/10.1016/j.bushor.2008.03.004

Sivasubramanian, K., Mukthar, K. P. J., Allauca-Castillo, W., Asis-Lopez, M., Cayotopa-Ylatoma, C., & Mory-Guarnizo, S. (2023), "Application of Artificial Intelligence in Human Resource Activities for Advanced Governance and Welfare". https://doi.org/10.1007/978-981-19-7874-6_66

Soleimani, M., Intezari, A., & Pauleen, D. J. (2021), "Mitigating Cognitive Biases in Developing AI-Assisted Recruitment Systems", *International Journal of Knowledge Management*, *18*(1): 1–18. https://doi.org/10.4018/IJKM.290022

Starke, C., Baleis, J., Keller, B., & Marcinkowski, F. (2022), "Fairness Perceptions of Algorithmic Decision-making: A Systematic Review of the Empirical Literature", *Big Data & Society*, *9*(2): 205395172211151. https://doi.org/10.1177/20539517221115189

Sunday Tubokirifuruar Tula, Azeez Jason Kess-Momoh, Ganiyu Bolawale Omotoye, Binaebi Gloria Bello, & Andrew Ifesinachi Daraojimba. (2024), "AI-enabled Customer Experience Enhancement in Business", *Computer Science & IT Research Journal*, *5*(2): 365–89. https://doi.org/10.51594/csitrj.v5i2.789

Tschang, F. T., & Almirall, E. (2021), "Artificial Intelligence as Augmenting Automation: Implications for Employment", *Academy of Management Perspectives*, *35*(4): 642–59. https://doi.org/10.5465/amp.2019.0062

van den Broek, E., Sergeeva, A., & Huysman Vrije, M. (2021), "When the Machine Meets the Expert: An Ethnography of Developing AI for Hiring", *MIS Quarterly*, *45*(3): 1557–80. https://doi.org/10.25300/MISQ/2021/16559

Venkatesh, A., & Kaveri, P. C. S. (2019), "Impact of AI on Recruitment Process". *International Journal of Management (IJM), 10*(3), 152–161.

Vrontis, D., Christofi, M., Pereira, V., Tarba, S., Makrides, A., & Trichina, E. (2022), "Artificial Intelligence, Robotics, Advanced Technologies and Human Resource Management: A Systematic Review", *The International Journal of Human Resource Management*, *33*(6), 1237–66. https://doi.org/10.1080/09585192.2020.1871398

Wuisan, D. S. S., Sunardjo, R. A., Aini, Q., Yusuf, N. A., & Rahardja, U. (2023), "Integrating Artificial Intelligence in Human Resource Management: A SmartPLS Approach for Entrepreneurial Success.", *Aptisi Transactions on Technopreneurship (ATT)*, *5*(3): 334–45. https://doi.org/10.34306/att.v5i3.355

Yam, J., & Skorburg, J. A. (2021), "From Human Resources to Human Rights: Impact Assessments for Hiring Algorithms", *Ethics and Information Technology*, *23*(4): 611–23. https://doi.org/10.1007/s10676-021-09599-7