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Artificial Intelligence Adoption in Recruitment and Its Effect on Candidate Experience

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Abstract

Artificial intelligence is quickly changing the recruitment process due to resume screening tools, chatbot communication, video interviews analysis, and candidate matching algorithms. While these tools ensure a faster, more consistent, and cost-efficient recruitment process, the impact of their use on the candidate experience is highly questionable. This paper explores the effect of adopting AI technology in recruitment on the candidate experience based on an integrative literature review of fifteen peer-reviewed papers published between 2019 and 2022. The research involved the thematic coding of the studies in relation to six dimensions of the candidate experience. The review reveals that the perceptions of procedural justice and fairness (46.7% of the studies) and efficiency and responsiveness (40.0%) are currently dominating the field, followed by algorithmic bias and ethics (33.3%), transparency and explainability (26.7%), and organizational attractiveness (26.7%). Human interaction and personalization are the least studied dimensions of the candidate experience (20.0%), but the lack of it results in numerous negative candidate experiences. There is sufficient evidence to suggest that AI enhances speed and communication, although there may be a decline in the perception of fairness and social presence when human recruiters are substituted by AI. The study suggests a human-centric framework for AI in recruitment, and discusses implications for the practice of Human Resource Management and future research.

Keywords: Artificial Intelligence, Recruitment, Candidate Experience, Applicant Reactions, Algorithmic Fairness, Human Resource Management.

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Introduction

Recruitment is usually the first interaction between an organization and its possible future employee, which affects their perception of the company and how they will respond to job offers and communicate about the organization. Nowadays, companies tend to use AI technologies to manage this process. Modern technologies are capable of evaluating and prioritizing resumes, answering candidates' questions via chatbots, scheduling interviews, analyzing videos, and assessing candidates based on data collected during the pre-screening process (Black & van Esch, 2020). This makes it possible for recruiters to handle large numbers of applicants quickly and effectively. Such an approach to recruitment is used because of many applications, competition for talents, and the development of cloud-based systems for Human Resources. According to Pan et al. (2022), the decision to introduce AI in recruiting is affected by many contextual factors, such as technological readiness, complexity, and organizational support. The introduction of AI in recruiting has become common practice in many industries, including information technology, banking, retail, and business process services in developed and emerging countries, like India. Candidate experience, however, does not depend only on efficiency. Candidate experience depends on candidates' perceptions of the degree to which their selection has been fair, respectful, communicative, transparent, and personal. As the research on applicant reactions demonstrates, these perceptions affect the attractiveness of an organization, intentions to accept job offers, and intentions to recommend the company (Acikgoz et al., 2020). With decisions being made by algorithms or aided by algorithms, candidates may be concerned about fairness of selection, human involvement into evaluating their applications, and the way their personal data was processed (Mirowska & Mesnet, 2022). In light of the above, the current paper focuses on answering three key questions: (1) what dimensions of candidate experience have been studied in relation to AI-based recruiting, (2) what can be said based on the current state of knowledge about the positive and negative impacts of artificial intelligence on candidate experience, and (3) what gaps need further research.

Literature Review

AI recruitment consists of the implementation of machine learning, natural language processing, and other associated technologies for the completion or assistance in different processes within the hiring cycle, ranging from sourcing to assessment and selection. Black and van Esch (2020) point out that AI helps expand the reach to passive candidates, personalizes jobs and shortens time-to-hire. At the same time, Tambe et al. (2019) note that the availability of HR data is often limited, the definition of outcomes like performance is challenging, and there are doubts regarding accountability of algorithms used for making decisions. According to the literature reviews by Vrontis et al. (2022) and Budhwar et al. (2022), recruitment is currently the most active field of AI applications in HRM. The concept of candidate experience relates to organizational justice, where justice can be categorized into procedural justice, which refers to how far the procedure is, distributive justice, which concerns fairness of the outcome, and interactional justice, which involves the quality of interpersonal interactions and information. Research about the applicant reactions focuses on recruitment process and demonstrates that the opportunity to perform, consistency, feedback, and two-way communication affect candidate experience. In their study, Acikgoz et al. (2020) have discovered that the candidates evaluated AI interviews less favorably than human interviews in the areas of opportunity to perform and two-way communication. Automated video interviews and artificial intelligence assessment are some of the most evident tools used by candidates. According to Langer et al., (2019), the more automated an interview was, the lower its acceptance rate compared to video interviews with a human being, especially in high-stakes contexts. Suen et al. (2019) observed that the candidates had more negative attitudes towards asynchronous video interviews assessed using artificial intelligence, while the interviews were similar in rating. Mirowska and Mesnet (2022) observed that potential candidates preferred human assessment even if they were biased. According to Gonzalez et al. (2022), responses were better where AI was used alongside humans rather than replacing them. One of the key benefits of AI in recruitment is the absence of human biases; however, AI algorithms can inherit existing biases from the data on which they are trained. Köchling & Wehner (2020) looked into the issues of algorithmic discrimination in hiring practices and pointed out the high dependence on data quality and human intervention in the process. Hunkenschroer & Lütge (2022) explored the ethical issues of AI recruiting in terms of privacy, informed consent, and transparency. Most literature tends to focus either on the organizational advantages of using AI for recruitment purposes or on the response of applicants to the use of different tools. Fewer pieces of research have approached the subject from both angles in order to assess how adopting AI in general influences the applicant experience. Thus, it becomes necessary to consolidate all the existing knowledge on the matter.

Methodology

An integrative literature review design was chosen as the basis for this research, since it allows synthesizing theoretical and empirical research related to a new, multidisciplinary issue. Databases such as Scopus, Web of Science, and Google Scholar have been systematically searched using combinations of keywords including "artificial intelligence", "algorithm", "recruitment", "selection", "chatbot", "video interview", "applicant reactions," and "candidate experience". Only those studies that (a) were published in peer-reviewed journals within 2019-2022, (b) covered the use of artificial intelligence in recruitment or selection processes, and (c) provided insights into candidates' experience, attitudes, or behavior were used. Opinion pieces, studies written in languages other than English, and purely technical studies of algorithm efficiency and accuracy were not taken into account. In total, 15 studies were found which were then analyzed in full and coded according to the following six candidate experience dimensions which have been revealed in the course of a thorough review of literature: perceptions of procedural justice and fairness, efficiency and responsiveness, algorithmic bias and ethical considerations, transparency and explainability, organizational attractiveness, and human interaction and personalization.

Results and Discussion

As shown in table 1, the dimension that received the most attention is the procedural justice and fairness perceptions dimension, which is present in seven out of fifteen reviewed papers (46.7%). The findings are quite consistent: candidates perceive AI-based assessments as being less fair than human-based assessments because candidates feel less capable of proving their skills and get less two-way communication (Acikgoz et al., 2020). This phenomenon becomes especially prevalent in high-stakes situations when it means the most to the candidates (Langer et al., 2019). Thus, it may be concluded that the influence of AI on candidate experience is not so much related to the technology itself but rather to its positioning and discretion in the hiring process. The dimension of efficiency and responsiveness is the second most prominent one (40.0%). Research demonstrates that AI can help significantly improve efficiency and responsiveness aspects of candidate experience. Chatbots can reply to candidates' questions anytime, while automatic scheduling eliminates delays, and faster screening helps reduce the most frustrating part of the process for candidates – long silences (Koivunen et al., 2022). According to Black and van Esch (2020), such improvements may make candidates feel that their time is respected.

Table 1: Thematic Synthesis of Candidate Experience Dimensions in the Reviewed Studies (N = 15)

Candidate Experience Dimension	Studies (n)	Key Findings	Implication for Practice
Procedural justice and fairness perceptions	7	AI-led interviews and decisions are often rated lower on chance to perform and two-way communication than human processes (Acikgoz et al., 2020; Langer et al., 2019).	Retain human involvement at decisive stages and give candidates a genuine opportunity to perform.
Efficiency and responsiveness	6	Chatbots and automated screening shorten time-to-hire and provide faster, round-the-clock communication (Black & van Esch, 2020; Koivunen et al., 2022).	Use AI for scheduling, updates and query handling to reduce waiting and uncertainty.
Algorithmic bias and ethical concerns	5	Algorithms can reproduce historical bias; privacy and accountability concerns reduce trust (Köchling & Wehner, 2020; Hunkenschroer & Luetge, 2022).	Conduct regular bias audits and obtain informed consent for data use.
Transparency and explainability	4	Candidates react more negatively when they do not understand how AI evaluates them (Wesche & Sonderegger, 2021).	Disclose where AI is used, what it assesses and how decisions are reviewed.
Organizational attractiveness	4	AI use can signal innovation to some candidates but reduce attractiveness for others (van Esch et al., 2019; Gonzalez et al., 2022).	Frame AI as supporting recruiters and communicate its benefits to candidates.
Human interaction and personalization	3	Absence of human contact lowers social presence and satisfaction with the process (Mirowska & Mesnet, 2022; Suen et al., 2019).	Combine AI with personal recruiter contact and individualized feedback.

Note: A single study may address more than one dimension; percentages are calculated on the total of 15 studies.

From fig. 1, it is clear that algorithmic bias and ethics emerge in five articles (33.3%), whereas transparency and explainability and organizational attractiveness emerge in four articles each (26.7%). The research related to bias suggests that AI may decrease discrimination or increase it according to its data and design (Köchling & Wehner, 2020). Job seekers feeling like they are being discriminated against or that their personal data is being misused will certainly lose their trust in the company (Hunkenschroer & Luetge, 2022). Transparency plays a role as a moderator, as revealed by Wesche and Sonderegger (2021), who state that the description of how AI works in the recruitment process affects candidates' expectations and their decision to apply for the job position.

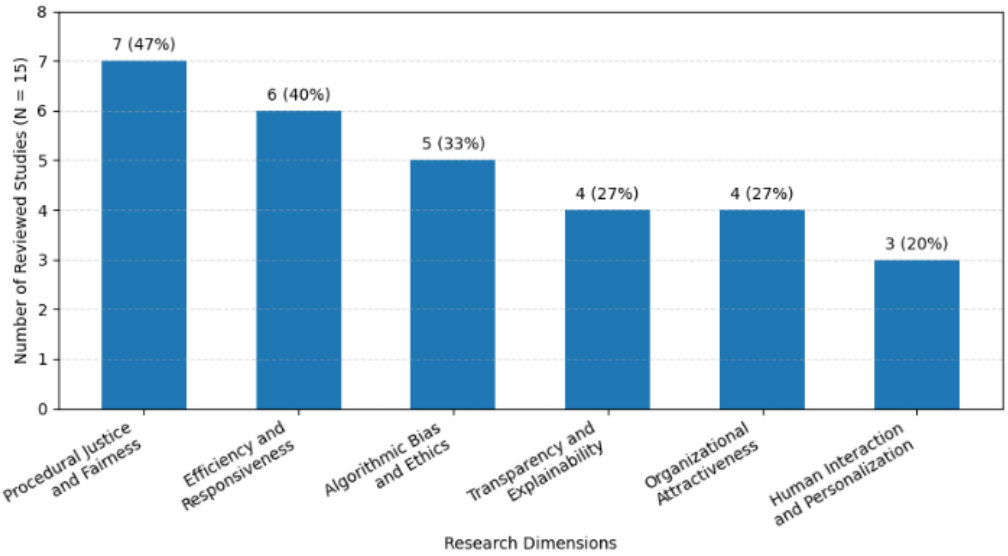


Fig. 1: Distribution of Candidate Experience Dimensions Across the Reviewed Studies (N = 15)

Human interaction and personalization are the least studied aspect, represented in only three articles (20.0%). It is especially surprising, given the fact that the lack of human touch appears to be the primary driver of negative responses to AI hiring systems described in the literature. The candidates, evaluated solely by an AI, experienced a reduced sense of social presence and felt like data rather than people (Suen et al., 2019). According to Mirowska and Mesnet (2022), many potential employees preferred having a human as an assessor despite their possible bias. Finally, Gonzalez et al. (2022) found that augmented systems, where the role of AI was only supporting human evaluation, received more positive feedback than automated ones.

In synthesizing the above insights, this review suggests that there could be a human-centred AI framework for recruitment based on four levers which would reinforce one another. The first lever is transparency, that is, the full disclosure of how and where AI is used and what the candidates can expect. The second one is the human oversight, which implies that any critical decision or final decision would include the human review, as well as the right of the candidate to ask for reconsideration of their case. The third lever is the fairness auditing, which means the periodic assessment of the algorithm for potential adverse impact and data governance. The last lever is the personalization of communication through the use of AI in providing prompt information while ensuring human interaction during certain stages of recruitment, e.g. interviews, offer, and rejection.

Practical Implications

For human resource practitioners, this means that AI can initially be used in the sections of the recruiting process where it enhances the candidate experience without any risks involved, such as scheduling, status checking and answering queries. When it comes to evaluating the candidate through resume ranking and interviews, however, a lot of care, explanation and analysis needs to be taken. Recruiting staff needs to be trained to understand the output of AI systems critically instead of taking everything at face value. The organizations will have to measure candidate experience measures like satisfaction ratings, dropout rates and offer acceptances separately for processes involving AI technologies. From the perspective of organizational behavior, the candidate experience impacts the psychological contract established before employment. Candidates who are treated well and respectfully during the hiring process enter the organization with positive expectations and trust while those who go through an impersonal process enter the organization with some degree of skepticism.

Limitations and Future Research

The synthesis is done based on fifteen papers and a coding framework derived from literature, thus the frequency reflects the research focus rather than practical relevance. Most of the studies reviewed have used experiments and hypothetical situations instead of actual hiring procedures, and the vast majority of them have been done in Western countries. Further research could be conducted to examine the views of actual applicants through different stages of AI-based hiring procedure, compare industries, job positions and cultures, including developing countries like India, and analyze new forms of generative AI.

Conclusion

The study conducted a thematic review of the impact of the implementation of AI in recruiting processes on candidates' experiences based on fifteen contemporary research papers. It was discovered that AI definitely enhances the speed and promptness of recruitment, although the complete automation of evaluation makes candidates consider this process to be less fair and less transparent, compared to human-oriented recruitment. There was a tendency among researchers to analyze fairness perception and efficiency, but human communication and personalization were still understudied dimensions that play an important role in the candidates' response. The suggested human-centered approach to AI recruiting, based on transparency, human control, fairness assessment, and personalization, provides the foundation for applying AI in recruiting without harming employer's reputation. With the development of new AI technologies, the organizations that will profit the most from them will be those that will use the technologies to enhance human element of recruiting.

References

Acikgoz, Y., Davison, K. H., Compagnone, M., & Laske, M. (2020). Justice perceptions of artificial intelligence in selection. *International Journal of Selection and Assessment*, *28*(4), 399-416. https://doi.org/10.1111/ijsa.12306

Black, J. S., & Van Esch, P. (2020). AI-enabled recruiting: What is it and how should a manager use it?. *Business horizons*, *63*(2), 215-226. https://doi.org/10.1016/j.bushor.2019.12.001

Budhwar, P., Malik, A., De Silva, M. T., & Thevisuthan, P. (2022). Artificial intelligence–challenges and opportunities for international HRM: a review and research agenda. *The InTernaTIonal Journal of human resource managemenT*, *33*(6), 1065-1097. https://doi.org/10.1080/09585192.2022.2035161

Gonzalez, M. F., Liu, W., Shirase, L., Tomczak, D. L., Lobbe, C. E., Justenhoven, R., & Martin, N. R. (2022). Allying with AI? Reactions toward human-based, AI/ML-based, and augmented hiring processes. *Computers in Human Behavior*, *130*, 107179. https://doi.org/10.1016/j.chb.2022.107179

Hunkenschroer, A. L., & Luetge, C. (2022). Ethics of AI-enabled recruiting and selection: A review and research agenda. *Journal of business ethics*, *178*(4), 977-1007. https://doi.org/10.1007/s10551-022-05049-6

Köchling, A., & Wehner, M. C. (2020). Discriminated by an algorithm: a systematic review of discrimination and fairness by algorithmic decision-making in the context of HR recruitment and HR development. *Business Research*, *13*(3), 795-848. https://doi.org/10.1007/s40685-020-00134-w

Koivunen, S., Ala-Luopa, S., Olsson, T., & Haapakorpi, A. (2022). The March of Chatbots into Recruitment: Recruiters' Experiences, Expectations, and Design Opportunities: Koivunen Sami et al. *Computer Supported Cooperative Work (CSCW)*, *31*(3), 487-516. https://doi.org/10.1007/s10606-022-09429-4

Langer, M., König, C. J., & Papathanasiou, M. (2019). Highly automated job interviews: Acceptance under the influence of stakes. *International Journal of Selection and Assessment*, *27*(3), 217-234. https://doi.org/10.1111/ijsa.12246

Mirowska, A., & Mesnet, L. (2022). Preferring the devil you know: Potential applicant reactions to artificial intelligence evaluation of interviews. *Human Resource Management Journal*, *32*(2), 364-383. https://doi.org/10.1111/1748-8583.12393

Pan, Y., Froese, F., Liu, N., Hu, Y., & Ye, M. (2023). The adoption of artificial intelligence in employee recruitment: The influence of contextual factors. In *Artificial intelligence and international HRM* (pp. 60-82). Routledge.

Suen, H. Y., Chen, M. Y. C., & Lu, S. H. (2019). Does the use of synchrony and artificial intelligence in video interviews affect interview ratings and applicant attitudes? *Computers in Human Behavior*, *98*, 93-101. https://doi.org/10.1016/j.chb.2019.04.012

Tambe, P., Cappelli, P., & Yakubovich, V. (2019). Artificial intelligence in human resources management: Challenges and a path forward. *California management review*, *61*(4), 15-42. https://doi.org/10.1177/0008125619867910

Van Esch, P., Black, J. S., & Ferolie, J. (2019). Marketing AI recruitment: The next phase in job application and selection. *Computers in Human Behavior*, *90*, 215-222. https://doi.org/10.1016/j.chb.2018.09.009

Vrontis, D., Christofi, M., Pereira, V., Tarba, S., Makrides, A., & Trichina, E. (2023). Artificial intelligence, robotics, advanced technologies and human resource management: a systematic review. *Artificial intelligence and international HRM*, 172-201.

Wesche, J. S., & Sonderegger, A. (2021). Repelled at first sight? Expectations and intentions of job-seekers reading about AI selection in job advertisements. *Computers in human behavior*, *125*, 106931. https://doi.org/10.1016/j.chb.2021.106931