

Artificial Intelligence in Managing Human Resource Functions- Key Issues in Decision-Making and Solutions

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Abstract:

The fast-paced implementation of artificial intelligence (AI) into human resource management (HRM) has transformed its functions and made them more efficient and effective. While AI systems offer advantages including speed, scalability, cost efficiency, and predictive accuracy, their growing use has also raised critical ethical concerns. This paper examines current literature on the adoption of AI in HRM and examines the emerging challenges associated with algorithmic decision-making. It proposes a set of practical interventions, such as bias auditing, explainable AI, human-in-the-loop governance, and organizational cultures that encourage reporting of system flaws. These suggestions help organizations to confirm that AI systems in HRM ensure fairness, transparency, and effectiveness.

Keywords: Artificial intelligence; Ethical AI; Human resource management; Explainable AI; Human-in-the-loop

Introduction

The present reality of the work environment is that it is moving towards automation. The use of generative and predictive artificial intelligence is speeding up the efficiency of various functions and processes, especially in Human resource management. There are many processes, such as screening of resumes, predicting employee performance, recommending employees for promotion or terminations and others are done through artificial intelligence systems. Organizations use and adopt AI systems because it provides speed and scalability, cost efficiency, perceived objectivity, and predictive accuracy. However, as these systems are making processes shorter and more efficient, there are also some issues and problems that are surfacing. The problems of biasness, discrimination, transparency and accountability are making these systems inefficient. This paper will first review the literature on how human resource systems are progressively becoming dependent on artificial intelligence, and then it will explore and discuss the issues and problems associated with this usage and dependence on AI. In the end, the study concludes with some suggestions through which AI can be used in performing various human resource functions more effectively and efficiently.

Review of Literature

There is evidence of increasing adoption of Artificial Intelligence (AI) in transforming the functions and performances of various HR functions, such as hiring, performance appraisal, engagement, and strategic decision-making. Literature highlights that AI technologies, such as algorithmic screening, machine

learning, and predictive analytics, increase operational efficiency, aid data-driven decision-making, and automate routine tasks, allowing HR executives to concentrate more on strategic and human-centric roles (Chakra et al., 2025; Singh, 2025; Sundari et al., 2025). However, the literature also highlights significant challenges, including ethical concerns regarding fairness and bias, transparency in AI decision processes, and data privacy issues (Springer, 2023; Vaishnavi et al., 2025). Further, some studies also suggest that it is necessary to maintain human control and oversight on AI systems to ensure their efficient implementation. Additionally, a few researchers suggest that integrating AI effectively in Human resource management requires robust governance frameworks and human-AI collaboration strategies to balance efficiency with equity and employee trust (Chakra et al., 2025; Vaishnavi et al., 2025).

Objectives of the Study & Methodology

As the review of literature suggests that artificial intelligence is progressively becoming in demand for future human resource management, it is also causing some issues affecting the trust moral and long term efficiency of the organizations. Therefore, through contextual analysis and review of literature, the goal of the current study is to define the key challenges of integrating Artificial Intelligence in managing HR processes and functions. The research will categorize the issues in broader themes and provide solutions to the business organizations so that AI can be implemented and synchronized with the HR systems and functions without causing any noise or friction.

Discussion

Troubles of Artificial Intelligence in Managing Various Human Resource Functions

Bias and Discrimination: AI systems use various decision criteria to conclude. Often, the data points selected or the selection variables used are not just and fair and can skew the results in favour of either the elite or a certain gender. For instance, the selection of data points, such as college or pincode or no break in service, results in downgrading of the resumes submitted by women with career breaks, Non-elite colleges, and regional universities. This is also an example of indirect gender or class discrimination without explicitly using gender or class. The other Bais are:

- **Accent and Language Bias in AI Video Interviews:** AI evaluates candidates' speech, tone, and facial expressions in asynchronous video interviews. There are possibilities of biased results, such as standard English accents being rewarded; regional accents, code-switching, or slower speech are scored lower. These turn out to be disadvantageous for Non-native English speakers, Candidates from rural or vernacular-medium backgrounds.
- **Performance Appraisal Bias through excessive reliance on digital data:** AI systems can be obsessed with analysing performances through digital data such as email frequency, online visibility, and chat response time. So employees who work quietly, flexibly, or offline appear less productive. Therefore, there are possibilities of caregivers and employees with disabilities being penalized.
- **Bias in Attrition Risk Models.** AI can flag employees as high attrition risk depending on their commute time, frequency of job searches, and other factors. High ROI employees are recommended for advanced training.

Transparency and Explainability: In more complex AI systems, for taking comprehensive, systematic decisions by considering multiple interactive factors. The decisions are made with such complex algorithms that they are not visible (black box), but only the output. So it becomes difficult to understand

how the decisions are taken. AI may be efficient, but without transparency, it can feel unfair and damage trust—even if the decision is technically correct.

Accountability: Often, while implementing the Artificial Intelligence systems in the HR process, multiple parties are involved and engaged. The Vendor, Data scientist, HR manager or team, top officials, and others. The problem comes when responsibility is not fixed and gets diffused in the system. HR often selects the systems, implements them, but does not design them. Say, for a promotion prediction software, they interpret and rely on AI scores, but don't know the nitty gritty of how they are generated. The vendor designs the tool but does not take final decisions. Data scientists build models (say he used proxy variables such as uninterrupted career paths to create a predictive model of promotions because he wanted accuracy over fairness), speed, and accuracy (women and first-generation professionals are continuously rejected), but they are not accountable to the employees. Further, senior leadership also shoves off the accountability by stating that they don't manage day-to-day outcomes.

How to fix the problems and issues

Identifying the unconscious bias. The problem with this form of Bias is that people are unaware of this, for instance you tone, style, and language selection while talking to people of different genders, race or ethnicities. AI can assist in analyzing these patterns and give feedback to concerned managers so that they can clearly see and correct them.

1. Developing a culture of identifying biases, discriminations, and other loopholes in AI systems. This can be done by adopting a strategy of promoting and rewarding the employees who successfully identify and report system-related issues and problems (Bujold et al., 2024).
2. It is critical to test the data points and proxy variables selected to ensure that the outputs from the systems are free from human bias. Ensuring the just and fair selection parameters aids the system in making ethical decisions (McCarthy, 2019).
3. AI systems must use machine learning algorithms with caution and care, and must check for unintentional outcomes before implementation. For instance, if an AI system learning model draws a link between college sports players and high performance in a sales job. That association could be founded on causal considerations, such as the sports player's (cricketer) position demands an amalgamation of intellectual skills, decision-making, and inspiring skills to guide a team, which aligns well with all the competencies required from a high-pressure sales job. However, this algorithmic rationale results in unintended outcome of excluding female applicants. This is because in college female rarely play sports like cricket, whereas mainly men can be college cricket players (Barcos & Selbst, 2016; Raghavan et al., 2020).
4. Testing and retesting the data on various reliable and error free data set before getting implemented is another way to make AI systems more efficient.
5. Using AI over AI is another system for eliminating the issues and challenges. Systems such as Textio can help identify the basis of gendered language usage in job descriptions and specifications. Additionally, the advantage of explainable AI (XAI) is that it constrains the danger of black box decision-making, as, rather than giving a single score or short decisions of yes or no, it explains the reason behind the outputs and scores (Textio, 2025; Hashemi-Pour et al., 2024; Meegle, 2025).
6. Lastly, the AI systems should not be managed end-to-end by technology; there should always be human checks applied over the outcomes generated by computer algorithmic decision-making. Humans to infer the final result and therefore, control or oversee the process and systems are a must for an efficient AI based Human resource management system (Raghavan et al., 2020).

Conclusion

The findings of this study highlight that AI should not be viewed as a unbiased or fully autonomous decision-maker in HRM. Instead, AI should be responsibly integrated into the HRM functions. The study highlights the key points of consideration, such as continuous testing of data inputs, careful evaluation of unintended outcomes, and the adoption of explainable AI mechanisms to reduce black-box decision-making. Additionally, it also suggests that organizations must nurture a culture that actively encourages employees to identify and report system-level biases and flaws. The pro behaviours should be supported by incentives and clear accountability structures. Most importantly, the study also suggests that organizations incorporate human control through human-in-the-loop approaches. This ensures that ethical judgment, contextual understanding, and responsibility remain central to HR decision-making.

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