

AI IN HIRING, ONBOARDING AND PERFORMANCE TRACKING

Kavita Richharia

Assistant Professor, Shri Vaishnav Institute of Management & Science, Indore

ABSTRACT

“The way in which talent is recruited, on boarded, and managed by organizations is being rapidly redefined by the integration of Artificial Intelligence (AI) into human resource (HR) processes. As the desire for effectiveness, customization, and data-driven decision-making grows, unprecedented opportunity to disrupt traditional human resource processes is offered by AI. The paper looks at the role of AI in three crucial HR domains: hiring, onboarding, and performance tracking, highlighting both the revolutionary potential and the limitations involved with its implementation.

AI technologies like as machine learning (ML) and predictive analytics are being utilized for automated and enhanced hiring operations. Artificial intelligence-powered application tracking systems (ATS) can scan thousands of resumescan scan in seconds with the help of Artificial intelligence-powered application tracking systems (ATS) to find top candidates based on predetermined criteria, and decrease human bias using standardized rating metrics. Additionally, candidate involvement is being increased and communication is being sped up by chatbots and digital interview technologies. However, questions are raised about algorithmic bias, transparency, and the possibility of previous discrepancies being repeated if biased datasets are used to train AI models. Onboarding, a usually resource-intensive step, is also being benefited from by AI-powered advances. Interactive tutorials and individualized learning paths are now being used by virtual onboarding assistants to help new workers manage administrative processes, complete required documentation, and adjust to their new jobs.

One of the most challenging but potentially rewarding applications of AI is performance tracking. The effect of subjectivity, occasional feedback, and a lack of data are common problems with traditional performance review systems. In order to present a comprehensive and unbiased picture of employee contributions, artificial intelligence (AI) has the capability to gather and evaluate ongoing performance data from a variety of sources. This enables more accurate appraisals, reveals inactive potential, and promotes smart talent management in any organization”.

Keywords: Hiring, Onboarding and Performance Tracking, Artificial Intelligence, Recruitment, Application tracking systems, Chatbots, Machine Learning, Performance review system

INTRODUCTION

The adoption of Artificial Intelligence (AI) in Human Resource Management (HRM) represents a profound change in how organizations approach talent acquisition, employee development, and overall performance management. Over the past decade, AI has become a game-changer in various industries, and HR is no exception. Traditionally, HRM relied on manual, paper-based, and often subjective methods, but it is now rapidly transitioning to digital processes. This shift is driven by the need for improved efficiency, objectivity, scalability, and data-driven decision-making.

The adoption of AI in human resource management is largely due to the increased access to big data, the progress in machine learning algorithms, and the rising demand for automating complex decision-making processes. AI tools are now utilized across various HR functions, including the screening of resumes, aligning talent, engaging candidates through chatbots, automating onboarding, and tracking performance continuously. These technologies aim not only to simplify administrative tasks but also to improve strategic HR roles by offering predictive insights and facilitating more personalized employee interactions.

Digital transformation encompasses the implementation of digital tools and technologies to fundamentally alter business processes, organizational culture, and the experiences of both customers and employees. Within the realm of human resources (HR), this transformation has evolved the function from a primarily administrative role to a more analytical and strategic partner in promoting organizational growth. The adoption of cloud-based HR platforms, mobile accessibility, AI-driven analytics, and data visualization tools empowers HR professionals to make informed, evidence-based decisions, thereby enhancing workforce engagement and responsiveness.

RESEARCH OBJECTIVES

The key objectives of this study are as follows:

1. To explore how AI technologies are being integrated into the hiring process.
2. To examine the use of AI in employee onboarding.
3. To analyze AI-driven approaches to performance tracking.
4. To identify ethical, legal, and organizational concerns

SCOPE OF THE STUDY

The three main areas of human resources that are the subject of this study are hiring, onboarding, and performance monitoring. By reviewing recent research, examining case studies, and citing commercially available AI technologies used in HR contexts, this paper looks at both theoretical frameworks and practical applications.

In terms of geography, the study mostly looks at AI deployments in corporate and enterprise-level companies, especially in technologically sophisticated economies where AI use is more established. In conclusion, the study aims to provide a fair assessment that considers the dangers and factors required for AI's ethical and long-term application in human resource management, in addition to highlighting the technology's potential to transform HR procedures.

LITERATURE REVIEW

1. AI in Recruitment and Hiring

According to Sakka F et al (2022) AI-powered digital transformation of employee onboarding is another HR activity. Research shows that AI-driven onboarding platforms may automate paperwork procedures, personalize training materials, and offer real-time support via virtual agents, all of which contribute to a more effective and interesting onboarding experience for new workers.

According to Upadhyay & Khandelwal, (2018), the important role AI-powered Applicant Tracking Systems (ATS) play in automating the screening of resumes, assigning rankings to prospects, and shortlisting applicants according to predetermined standards. Within the field of human resource technology, one of the most researched topics is the use of AI in hiring.

2. AI in Onboarding

According to Ziden and Joo (2020), due to inadequate training and career growth many employees choose to leave early. Effective onboarding, particularly through digital platforms, addresses these concerns by speeding integration, personalizing the experience, and delivering continual learning from the start of the Offered role which helps employees to collaborate effectively.

Raghavan et al. (2020) analyze frequent claims about current mitigation practices and algorithmic hiring and their assessment. They suggest that while AI-powered hiring solutions are usually presented as impartial and bias-free, such assertions are frequently exaggerated. The authors emphasize the necessity of evaluating not only the technical design of these systems, but also the larger organizational behaviors that influence their use.

3. AI in Performance Tracking and Management

According to Varma et al (2024) essential elements of performance management systems (PMS), usually consisting of staff development planning, performance review, goal setting, and ongoing feedback. Scholars have investigated the ways in which AI technology can improve each of these components.

Pillai and Sivathanu (2020) explore the key factors influencing the adoption and actual usage of AI technologies in this domain. It is revealed by their study that the decision to adopt AI for talent acquisition is positively influenced by several factors such as cost-effectiveness, perceived relative advantage, top management support, HR readiness, competitive pressure, and vendor support.

4. Ethical Considerations and Challenges

According to Stahl, B.C. (2021) AI systems have the potential to mistakenly replicate biases present in past HR data when it comes to hiring, performance reviews, and promotions. Unless algorithms are carefully constructed and regularly evaluated to guarantee fairness, this could result in discriminatory outputs. To solve this, HR departments need to ensure transparency, and get informed employee permission.

Votto et al. (2021) identify tactical HRIS components appear most frequently in academic literature. According to their findings, recruitment and performance management are among the most investigated topics, while disciplinary management and compensation analysis are relatively overlooked. The paper emphasizes the expanding impact of AI in shaping modern HR practices and advocates for deeper study across all tactical HR topics.

METHODOLOGY

This study uses a descriptive research design, in order to provide an overview of current practices, tools, and trends linked to the use of artificial intelligence (AI) in human resource management (HRM). The principal aim is to document the application of AI in particular HR functions, including performance management, onboarding, and recruitment. With an emphasis on methodically presenting the available data and actual instances of AI deployment in HR.

AI Applications in HR Processes

The implementation of Artificial Intelligence (AI) in Human Resource Management (HRM) has resulted in substantial changes in how organizations manage people and processes. The major HR functions: recruitment and hiring, onboarding, and performance management greatly affected by this.

AI in Recruitment and Hiring

The recruitment environment has been transformed by AI by bringing intelligent technology and automation to what was previously a time-consuming and manual process.

Tools Used

Organizations are increasingly using Applicant Tracking Systems to automatically evaluate applications, rank applicants, and match prospects to job descriptions based on specific keywords, experience, and skills. AI-powered chatbots are also used to organize interviews, react to frequently asked questions, and manage initial candidate communication.

Real-World Examples

- Unilever rapidly processes thousands of applications by utilizing AI for online assessments and first screening.
- Hilton Hotels greatly decreased the time-to-hire by implementing AI chatbots to answer job-related questions and assist applicants with the application process.

Technologies Commonly Used

- HireVue:
- Pymetrics:
- LinkedIn Recruiter AI:

AI in Onboarding

AI-powered onboarding services simplify typical operations like form completion, policy writing, and tracking of compliance records. These systems also assist employees through training modules and institutional orientation in a systematic and interesting way.

Use of AI for Document Processing, Training Modules, Virtual Assistants

- quicker procedure for document and access provisioning.
- Lower administrative pressure for HR staff.
- Improved employee experience with tailored support and timely information.

AI in Performance Management

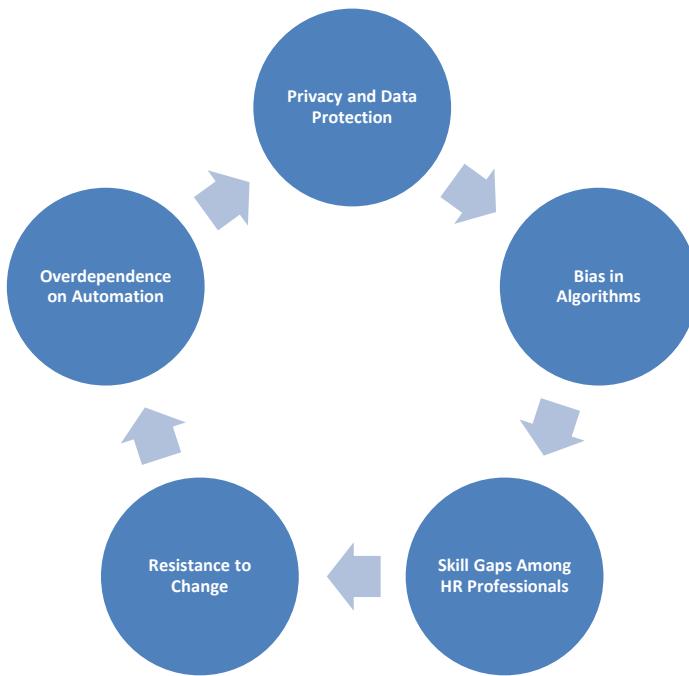
AI plays a growing role in transforming performance management from an annual event to a continuous, data-driven process.

- AI Use in Setting Goals, Tracking KPIs, and Delivering Feedback
- Use of Dashboards, Analytics, and Monitoring Tools

Challenges in Implementing AI in HR

A considerable benefits in Human Resource Management (HRM), is provided by AI BUT its deployment poses a number of practical and ethical problems. These concerns must be

addressed and solved in order for AI systems to successfully and responsibly support HR goals. The following are the main obstacles firms encounter when integrating AI into HR processes:



Future of AI in HR

Deeper integration, smarter tools, and a more human-centric approach are likely to characterize the future of artificial intelligence (AI) in human resource management. As technology advances, AI is set to play an increasingly important role in revolutionizing how businesses acquire, manage, and develop personnel.

1. Predictive and Proactive HR Functions
2. Hyper-Personalized Employee Experience
3. Integration with Emerging Technologies
4. Ethical AI and Transparent Algorithms
5. Human-AI Collaboration
6. Expanding Use Across All HR Functions

CONCLUSION

This report provides a detailed overview of how Artificial Intelligence (AI) is now influencing Human Resource Management. According to the findings, AI is increasingly being used to automate and improve fundamental HR tasks, making them more efficient, data-driven, and sensitive to organizational demands. AI is now widely employed in HR for tasks like resume screening of candidates, ranking of candidates, chatbot-based communication, onboarding automation, real-time performance tracking, and targeted employee development. These technologies automate operations, reduce human labor, and increase decision-making accuracy.

Recruitment and hiring, onboarding, and performance management are the three core HR sectors that will gain the most from AI. In these areas, AI assists firms in saving time, improving candidate and employee experiences, and ensuring more objective performance reviews.

REFERENCES

1. Stahl, B.C. and Stahl, B.C., 2021. Ethical issues of AI. *Artificial Intelligence for a better future: An ecosystem perspective on the ethics of AI and emerging digital technologies*, pp.35-53.
2. Varma, A., Pereira, V. and Patel, P., 2024. Artificial intelligence and performance management. *Organizational Dynamics*, 53(1), p.101037.
3. Varma, A., Dawkins, C. and Chaudhuri, K., 2023. Artificial intelligence and people management: A critical assessment through the ethical lens. *Human Resource Management Review*, 33(1), p.100923.
4. Sakka, F., El Maknouzi, M.E.H. and Sadok, H., 2022. Human resource management in the era of artificial intelligence: future HR work practices, anticipated skill set, financial and legal implications. *Academy of Strategic Management Journal*, 21, pp.1-14
5. Upadhyay, A. K., & Khandelwal, K. (2018). Applying Artificial Intelligence: Implications for Recruitment. *Strategic HR Review*.
6. Votto, A.M., Valecha, R., Najafirad, P. and Rao, H.R., 2021. Artificial intelligence in tactical human resource management: A systematic literature review. *International Journal of Information Management Data Insights*, 1(2), p.100047.
7. Pillai, R. and Sivathanu, B., 2020. Adoption of artificial intelligence (AI) for talent acquisition in IT/ITeS organizations. *Benchmarking: An International Journal*, 27(9), pp.2599-2629.
8. Brock, J.K.U. and Von Wangenheim, F., 2019. Demystifying AI: What digital transformation leaders can teach you about realistic artificial intelligence. *California management review*, 61(4), pp.110-134.
9. Geetha, R. and Bhanu, S.R.D., 2018. Recruitment through artificial intelligence: a conceptual study. *International Journal of Mechanical Engineering and Technology*, 9(7), pp.63-70.
10. Malik, A., Budhwar, P., Mohan, H. and NR, S., 2023. Employee experience—the missing link for engaging employees: Insights from an MNE's AI-based HR ecosystem. *Human Resource Management*, 62(1), pp.97-115.
11. Chukwuka, E.J. and Dibie, K.E., 2024. Strategic role of artificial intelligence (AI) on human resource management (HR) employee performance evaluation function. *International Journal of Entrepreneurship and Business Innovation*, 7(2), pp.269-282.
12. Vrontis, D., Christofi, M., Pereira, V., Tarba, S., Makrides, A. and Trichina, E., 2023. Artificial intelligence, robotics, advanced technologies and human resource management: a systematic review. *Artificial intelligence and international HRM*, pp.172-201.

13. Raghavan, M., Barocas, S., Kleinberg, J. and Levy, K., 2020, January. Mitigating bias in algorithmic hiring: Evaluating claims and practices. In *Proceedings of the 2020 conference on fairness, accountability, and transparency* (pp. 469-481).
14. Ziden, A.A. and Joo, O.C., 2020. Exploring digital onboarding for organizations: A concept paper. *International Journal of Innovation, Creativity and Change*, 13(9), pp.734-750.
15. Rekha, K., Gopal, K., Satheeskumar, D., Anand, U.A., Doss, D.S.S. and Elayaperumal, S., 2024, May. Ai-Powered Personalized Learning System Design: Student Engagement and Performance Tracking System. In *2024 4th International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE)* (pp. 1125-1130). IEEE.