



Transglobal Research Journal

Volume 1 Issue 2 July 2026

ISSN: 3139-3985

The Opportunities and Challenges of Using Artificial Intelligence in Human Resource Management Practices

Dr. D. SILAMBARASAN

Assistant Professor

Department of Commerce

Saradha Gangadharan College, Puducherry.

E-Mail: dsarasansss@gmail.com

Mobile: + (91) – 8695958104

Dr. R. RAJA

Assistant Professor

Department of Management

Hindustan College of Arts and Science,

Affiliated to University of Madras / NAAC Reaccredited / 2(f) Status

Padur, Kelambakkam, Chennai – 603 103

E-Mail: jaihindraj73@gmail.com

Mobile: + (91) – 8248828049

Abstract

Digital advances continue to fuel business transformation. Firms have shifted their strategic focus towards digital technology (*DT*) in order to capitalize on the potential accessible by new age technologies, mainly artificial intelligence (*AI*). Firms can obtain a strategic benefit in talent by implementing *AI* in human resource management (*HRM*). *AI* can modify the learning process in your training programs to meet the needs of your staff. It can be used in your courses to



Transglobal Research Journal

Volume 1 Issue 2 July 2026

ISSN: 3139-3985

evaluate the expertise of your staff and provide targeted training courses to bring them up to speed. There are various indicators that *AI* can play an important role in recruiting, staff retention, on boarding, and the automation of administrative duties. This study investigates the opportunities and challenges of applying *AI*, with a special emphasis on personnel marketing and recruitment. This study based on secondary data collected through various journals, websites and newspapers, etc. *AI* can revolutionize *HRM* by combining data analytics, machine learning, and automation to improve efficiency and outcomes. The study concluded that while businesses are embracing *AI* and *DT* with enthusiasm in many *HRM* domains, their comprehension of how these technologies affect employees frequently lags or is not prioritized. This article also offers recommendations on when and where *AI* should be promoted in *HRM*, as well as areas where it might create more issues than it fixes.

Key Words: Artificial Intelligence, Challenges and Opportunities, Human Resources Management Practices, Strategic *HRM*

Introduction

The process of programming robots to learn and make judgments similarly to humans is known as *AI*. It entails analyzing data, finding trends, and formulating forecasts using algorithms and machine learning. Systems driven by *AI* are proficient to process massive volumes of information, gain knowledge from it, and offer insights that support businesses in making wise decisions.



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A new age of *HRM* will be ushered in by *AI*, where automation, machine learning, and data analytics may work together to produce better results and save time. Business organizations might think about how *AI* tools can enhance human resources (*HR*) for employees and job seekers as technology advances from automation to augment. It offers real-time information, insights, suggestions, and time savings.

"*AI in HR*" refers to the progression of integrating *AI* technologies, and algorithms into a business's *HRM* procedures. Through the use of automation and data-driven intelligence, this *AI* application aims to improve *HR* operations' efficacy, efficiency, and strategic impact.

Review

Sanchez et. al. (2022) the purpose of this paper is to perform a bibliometric analysis of the methodical literature that discusses the use and effects of *AI* in *HRM* in a cohesive manner. A total of 156 publications were found using the technical databases Web of Science and Scopus, of which 73 were chosen for further examination. The findings demonstrate that *AI* useful to *HRM* is a rapidly expanding ground of study with a bright opportunity. However, it should be highlighted that this field has a very exact character because the majority of research is concentrated on the use of *AI* in recruitment and collection processes, ignoring other subfields with important application perspectives.

Kaur and Gandplfi (2023) this study offers insights into how the use of *AI*-related technological advancements has transformed *HR's* role as a strategic partner. *AI* helps establish organizational capabilities and competitiveness, which in turn creates market-winning organizations. It also



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Volume 1 Issue 2 July 2026

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examines how the use of *AI* has affected *HRM*. Research in this area is discussed, including possible prospects.

Nadhiya and Muffassara (2023) the purpose of this literature review was to investigate the achievable advantages, and difficulties of implementing *AI* in *HRM*. Out of the 100 publications that were downloaded, 80 could be filtered out because 20 of them were judged unrelated since the investigation entails conceptual literature appraisal analysis. According to the screened papers, the authors give significant thought to each of the 80 and summarize the benefits, and drawbacks of using *AI* in *HRM*. This study demonstrates unequivocally that *AI* drastically affects *HRM* practices in both beneficial and difficult ways. For *AI* to thrive in the new setting, it must work in tandem with *HRM* measures. Therefore, it is necessary to manage the challenges posed by *AI* and properly capitalize on its opportunities.

Madancian and Taherdoost (2024) this article highlights how crucial it is to beat a balance between ethical issues, person interaction, and technical advancement. Recruitment, employee onboarding, performance reviews, and talent management might all be made more efficient by integrating *AI* into *HRM*. Additionally, *AI*-enabled analytics make data-driven insights for strategic workforce planning possible. To make sure *AI* improves *HRM* procedures rather than replaces the essential human component, employers, *HR* specialists, and researchers must collaborate. Organizations may take use of *AI*'s promise to create effective, fair, and productive workplaces by acknowledging its potential to revolutionize *HRM* and proactively tackling its problems.



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Objectives

- ❖ To understand the association between *AI* and *HRM*.
- ❖ To explore the opportunities and challenges of using *AI* in *HRM* practices.

Methodology

- ❖ The researchers used secondary data collected from various sources like articles, websites etc.
- ❖ This research focuses on the opportunities and challenges of *AI* in *HRM* practices.
- ❖ The present study collected data for the year 2024.

Discussion and Findings

Some ways to use *AI* in *HRM*:

Employee development: *AI* can help employees create personal development plans by assessing their needs and performance data.

Employee well-being: *AI* can provide insights into employee workload and overall well-being, which can help teams, better allocate resources.

Recruitment: *AI* can help reduce hiring costs by hiring unqualified candidates or rejecting qualified ones. It can help source and match the best candidates for roles.



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Administrative tasks: *AI* can computerize time-consuming organizational responsibilities, release *HR* people to focus on other aspects of their work.

Employee productivity: *AI* can help compute employee efficiency in real-time by analyzing employee statistics.

Candidate experience: *AI* can help managers save time and reach better talent by creating personalized messages for candidates.

Interview transcription: *AI* can transcribe and summarize live interviews, eliminating the need for note-taking.

Six ways that *AI* plays a role in *HRM*:

- ❖ Streamlining recruitment and selection
- ❖ Learning and Development (L&D)
- ❖ Increasing performance management
- ❖ Employee appointment
- ❖ Employee maintenance

Advantages of *AI* in *HRM*:

- ☐ Increased efficiency and truthfulness in administrative tasks
- ☐ Development in candidate viewing and selection procedure



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- ☐ Improved employee commitment and retention by providing personalized experiences and real-time response
- ☐ To improve the ability of *HRM* to make informed decisions by analyzing data
- ☐ Ensure compliance with labor laws and regulations
- ☐ Streamlined, personalized and successful learning and development
- ☐ rising productivity through regular task computerization
- ☐ Reduced bias related with the viewing process

Benefits of *AI* in *HR*:

1. Streamlined Recruiting and Screening Processes
2. Personalized on boarding Experiences
3. Enhanced Performance Reviews and Feedback
4. Automated Tasks and Reduced Workloads
5. Predictive Analytics for Talent Management
6. Better Employee Engagement

Use of *AI* in *HR* Functions:

- ☐ *AI* in Payroll
- ☐ *AI* in Recruitment
- ☐ *AI* in Performance Management



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- *AI* in Employee Engagement
- *AI* in HR Analytics
- *AI* in Employee On boarding
- *AI* in skill achievement

Opportunities of *AI* in *HRM*

Automating tasks - *AI* can automate routine tasks like answering common questions during on boarding or drawing up job descriptions.

Improving employee engagement - *AI* can analyze employee feedback and sentiment from surveys, chat logs, and social media to identify areas for improvement..

Personalizing on boarding - *AI* can help *HR* teams personalize the on boarding process for each employee based on their status.

Analyzing performance data - *AI* can analyze routine data to identify trends and help *HR* make decisions about promotions, bonuses, and other rewards.

Creating personalized learning programs - *AI* can create personalized learning programs based on employees' roles, experiences, work styles, and career interests.

Speeding up recruiting- *AI* speeds up time to hire by eliminating low-value administrative tasks like communicating with candidates.



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Providing insights into the workforce - *AI* software can provide businesses with greater insights into their workforce.

Challenges of *AI* in *HRM*

- ☐ **Bias:** *AI* systems can amplify biases in the data they are educated on, which can lead to unfair hiring practices and biased performance evaluations. *HR* professionals should review and address biases in the *AI* system's plan and data inputs.
- ☐ **Job displacement:** As *AI* systems become more advanced, there is a fear that they will perform tasks that were previously done by humans.
- ☐ **Lack of training:** *HR* managers may not have the training or technological readiness to adopt *AI* as a recruitment tool.
- ☐ **Data privacy:** There are concerns around data confidentiality when using *AI* in *HR*.
- ☐ **Manager authority:** *AI* may replace some of the primary responsibilities of *HR* managers, which could interfere with their authority and the organization's outcomes.
- ☐ **Trust:** There may be a lack of trust in *AI*.
- ☐ ***AI* skills:** *HR* staff may lack the skills to use *AI*.
- ☐ ***AI* decision-making:** There are questions about the dependability and validity of *AI* decision-making.
- ☐ **Budget constraints:** There may be budget constraints for using *AI*.
- ☐ **Return on investment:** There are questions about the return on investment for using *AI*.



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Applications of *AI* in *HRM*

***AI* voice bots:** Although chatbots have become quite popular, *AI*'s impact on *HR* is also seen by voice-activated bots, which are just as effective as Siri and Alexa. By switching from a text-based interface to one that facilitates text and speech interactions, these voice bots may manage frequently asked questions and assistance at help desks.

Facial Recognition System: Facial recognition technology has been included by certain businesses in their attendance management systems. Employees can record their attendance from various locations thanks to this technology. Protection and compliance safeguards are guaranteed with *AI*-driven facial recognition, geotagging, and geofencing.

Prediction Engines: A predictive analytics engine that may uncover hidden trends in organizational data is one example of how *AI* is incorporated into *HR* analytics. To advise suitable actions throughout the employment lifecycle, *AI*-powered predictive analytics, for instance, can analyze employee behaviour and other aspects. An *AI* system has the ability to automatically remind managers and staff to take corrective action.

Document Scanning: When scanning *HR* and personnel papers, optical character appreciation (OCR) replaces the requirement for manual labour. For instance, *AI*-powered bill scanning software expedites cost management by automatically recording spending while on the road. Verifying the recognition and certification of new hires and candidates is part of this capability.

Conclusion

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Transglobal Research Journal

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ISSN: 3139-3985

The paper examines the advantages and disadvantages of integrating AI into HRM procedures. Data for 2024 was gathered in this investigation. Your training programs can use AI to modify the learning process to meet the demands of employees. Numerous signs suggest that AI may be crucial for hiring, retaining employees, onboarding, and automating administrative tasks. According to the study's findings, companies are embracing AI and digital technology enthusiastically in many HRM domains. Still, their comprehension of how these advancements affect employees frequently lags or is not prioritized. Additionally, this article offers guidance on when and where AI should be used in HRM for beneficial purposes and when it might cause more issues than it fixes.

Limitations and Scope of the Study

- ❖ Researchers have increasingly focused on special *AI* tools and techniques and how they have independently benefitted *HRM* practices.
- ❖ Researchers can examine how *AI* affects *HRM* practices using both qualitative and quantitative approaches by expanding the conceptual literature study.
- ❖ All aspects of human resources, including learning, career development, employee voice, talent acquisition, and *HR* service management, are potential uses for *AI* technologies.

Abbreviations:

AI – Artificial Intelligence

HRM – Human Resource Management

DT – Digital Technology

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Transglobal Research Journal

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ISSN: 3139-3985

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Volume 1 Issue 2 July 2026

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