

# **RESEARCH ARTICLE**

# The Integration of Artificial Intelligence in Human Resource Management in the U.S. Retail Sector

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# ABSTRACT

Purpose: This paper addresses the challenge of integrating Artificial Intelligence (AI) into human resource management (HRM) for the retail sector with the view of addressing challenges of high employee turnover, skill development as well as performance monitoring. Methodology: Existing literature was subjected to a thematic analysis to identify key themes and insights about AI's role in recruitment, employee motivation, and performance evaluation. Key Findings: AI paces up recruitment speed, personalizes training through adaptive learning and performs performance tracking in real-time. But there are ethical problems, such as algorithmic bias and transparency. Implications: AI brings transformative tools for retail HR management processes and employee engagement. The key to inclusivity and trust is balanced implementation and ethical oversight. Future Directions: Future research needs to address long term workforce impacts and frameworks for the ethical challenges in retail HRM.

# **KEYWORDS**

Artificial Intelligence, Human Resource Management, Retail Sector, Recruitment, Motivation, Employee Satisfaction

# **ARTICLE INFORMATION**

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# 1. Introduction

The adoption of artificial intelligence (AI) in human resource management (HRM) has increased automation, predictive analytics, and efficiency, all to address the high employee turnover and the dynamic demands in the retail sector (Afolabi et al., 2023). According to a Statista survey, more than 65 percent of HR professionals use AI to create job descriptions, or 42 percent of those using AI to respond to job postings. According to Black and van Esch (2020), speed and precision in sifting through candidates are what has made AI-recruited agents necessary in the field of retail. One problem however is when we integrate AI into current systems, employee trust and adaptability are an issue. Constant balance must be held between efficiency and human engagement, and careful implementation strategies are required.

However, AI systems can inadvertently perpetuate biases and stifle inclusivity in retail hiring practices (Bandari, 2019). According to Kelan (2024), the algorithms are often not well designed and these inherently embed societal bias, which can limit diversity efforts. Trust, employee satisfaction, and the success of the organization – all depend on rigorous testing and transparency.

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# 2. Problem Statement

HR challenges in the retail sector are high employee turnover, ineffective recruitment processes and maintaining employee satisfaction. AI comes with its transformative solutions, but with fears of bias, ethical consequences, and employee trust. To effectively apply AI to sustainable retail HR practices, we need to address these issues.

# 3. Purpose and objectives of the study

The aim of this study is to address the issue of integration of artificial intelligence (AI) applications in human resource management (HRM) in the retail sector. Objectives are outlined below:

- To analyse the role of AI in integrating with retail HRM through the changes in recruitment, selection, and motivation processes.
- To quantify ethical and operational challenges that arise when using AI in HR practices.
- To find out about Al-based ways to boost employee satisfaction and performance monitoring.
- To offer actionable recommendations for retail companies to successfully deploy AI in ways that balance fairness and transparency in HR processes.

## 4. Literature Review

There is a lot of artificial intelligence (AI) potential in the recruitment processes, but challenges exist. Resume screening and predictive algorithms are powered by AI tools such as resume screening, which identify candidates, reduce time and reduce human error (Bhargava et al., 2021). For example, Black and van Esch (2020) contend that AI enabled recruiting has become essential for modern HR practices given its efficiency in finding candidates for roles. As per the below graph, 33 percent of people use AI for resume screening and candidate search, which only reiterates its importance in HRM. The ethical problem involved here, though, is that algorithms can create biases which, if poorly crafted, can embed societal biases, undoing any such diversity efforts (Kelan, 2024; Rahman et al., 2025). Such concerns highlight the need for careful oversight and the unceasing evolution of AI systems.

# Graph 1: Use of Artificial Intelligence (AI) In Recruiting, Interviewing, and Hiring In the United States In 2024







#### Graph 2: A Breakdown of the Most Common Functions People Use AI for In the Workplace



It further demonstrates how AI can massively change the selection processes. Data-driven decision making is made more advanced through the use of algorithms that allow precision identification of the best candidates (Cramarenco et al., 2023). It, therefore, as stated by Albaroudi et al. (2024), AI can neutralize bias by means of natural language processing techniques that foment fairness. However, according to the graph, only 15 percent of the surveyed companies use AI for background checks, which indicates to the extent to which it is not used in critical decision points. Such collaboration between AI developers and human resources professionals is needed to widen the applications of AI in an ethical and effective manner (Albaroudi et al., 2024).

Al (Hunkenschroer & Luetge, 2022) has also reshaped process of motivation, namely through Maslow's Hierarchy. According to Getman et al. (2024), Al enabled gamification strategies can dramatically boost engagement focusing on customised motivational experiences. The graph, however, places a heavy focus on the uses of Al, including job description generation (65%), which indicates that more innovative uses of motivation deserve exploration. Therefore, to maintain motivation and long term engagement, balancing Al efficiency with human oversight is critical (Getman et al., 2024).

#### 5. Methodology

For this study, thematic analysis was chosen because it is able to identify, analyse, and interpret patterns in qualitative data. This study focuses on recruitment, motivation, and people monitoring, as the end of recruitment is directly connected to motivation that recruits feel for their jobs and directly affects their engagement and performance. Shukla et al. (2019) assert that such a method helps in an in depth understanding of complex themes.

Data sources for this analysis included peer reviewed journals as well as books and conference papers that specifically discuss AI in HRM. Through this process, we familiarised myself with the data, noted key points, developed themes and checked the relevance and coherence of all themes. As expressed by Hasija and Esper (2022), the role of thematic analysis is to capture the subtle views and role of AI adoption in organizational framework to acquire rich and workable concepts.

## 6. Results/Findings

The usage of artificial intelligence (AI) is reshaping human resource management (HRM) in recruitment, motivating the employees and improving performance monitoring (Malik et al., 2023). In this section, we critically explore thematic findings and the use of AI tools in these areas, benefits of such tools, and the challenges they raise.

Table 1: Thematic Analysis			
Theme	Source 1	Source 2	Source 3
Al in Recruitment Processes	"Al-enabled recruiting systems have evolved from nice to talk about to necessary to utilize" (Black & van Esch, 2020).	"More businesses are using Al in curriculum vitae (CV) screening this process improves efficiency in the recruitment process" (Albaroudi et al., 2024).	"Generative AI is a game- changer, enabling automated candidate screening that leverages algorithms to sift through resumes and applications" (Rathnayake & Gunawardana, 2023).
Al and Algorithmic Bias	"While the move improves efficiency in the recruitment process, it is vulnerable to biases, which have adverse effects on organizations and the broader society" (Albaroudi et al., 2024).	"AI may equally replicate and amplify such bias and embed it in technology" (Kelan, 2024).	
Al in Motivation Processes	"Gamification significantly enhances employee motivation and performance" (Getman et al., 2024).	"Al-driven applications align with Maslow's hierarchy by addressing psychological needs" (Patil & Josep, 2024).	
Al in Employee Satisfaction	"AI-assisted applications for HRM enhance employee experience (EX) and engagement (EE)" (Malik et al., 2023).	"Generative AI can provide employees with real-time insights into their performance, fostering ongoing improvement" (Rathnayake & Gunawardana, 2023).	
Al in Performance Monitoring	"Real-time Artificial intelligence Al-driven assessments not only enable incentives and praise for good performances immediately but also ensure accuracy throughout the entire process" (Chukwuka & Dibie, 2024).	"Continuous feedback mechanisms, enabled by Al, provide employees with real- time insights into their performance, fostering ongoing improvement" (Rathnayake & Gunawardana, 2023).	

# Table 1. Thematic Analysis

Recruitment processes have seen the evolution of AI as the processes have become automated and efficient (Nazareno & Schiff, 2021). Black and van Esch (2020) point out that AI-enabled recruiting systems are now vital as they enable candidate selection to be streamlined. The good thing about these tools is that they can quickly sift through a large volume of applications and save time and resources. But there is risk in relying on such systems to perpetuate algorithmic bias if the training data includes historical inequities. According to Albaroudi and colleagues (2024), while AI can be efficient it can also suffer from bias and prove to be unfair. This highlights the necessity to monitor and continually improve AI tools for inclusivity and fairness in results (Albaroudi et al., 2024).

Aligning with Maslow's hierarchy of needs to motivate employees through AI potentials are of great interest (Okatta et al., 2024). In Getman et al. (2024) it is illustrated that gamification strategies powered by AI leads to higher engagement, by developing adaptive learning environments and personalized incentives. For instance, AI can individualize rewards by taking account of psychological needs such as of self-fulfilment, and needs physical. Like Patil and Josep (2024), they argue that AI applications or adaptive learning platforms facilitate employee satisfaction by addressing intrinsic needs. However, relying too far upon such technology has the risk of minimizing authentic human interaction. To leverage the efficiency of AI without compromising trust, it's important to take a balanced approach (Getman et al., 2024).

Performance monitoring shows how well AI may perform real time feedback and correct evaluation (Prentice & Nguyen, 2020). Chukwuka and Dibie (2024) point out that AI powered assessments provide immediate recognition of achievements and precision. Rathnayake and Gunawardana (2023) point out that too much monitoring can make employees stressed and resistant. To generate trust and satisfaction, these systems must either have transparent implementation or involve employee involvement in their design. A balance between oversight and employee autonomy is critical for making performance management sustainable.

## 7. How We Can Implement It in the Retail Sector

When it comes to AI in the HRM of the retail sector, there are different challenges that must be tackled such as high rate of turnover, diversified workforce needs and the need for fast processing. Once put into action, AI platforms can revolutionize recruitment by automating resume screening, ranking candidates and prediction of job fit. It is particularly useful in retail due to the frequent need to hire large numbers of frontline staff (Sakka et al., 2022). Black and van Esch (2020) underline that recruiting at scale is not efficiently handled without AI enabled recruiting. Despite this, Albaroudi et al. (2024) point out that biases in AI systems can disproportionately affect underrepresented groups in retail. To promote inclusive hiring, retailers have to use bias mitigation strategies, including diverse data inputs and regular audits (Votto, Poval (2021).

Retail jobs are varied and personalized training and motivation can really improve employee performance. Second, AI systems powered by AI analyse employee data to better personalize training in areas of skilled gaps (Yanamala, 2024). As Rathnayake and Gunawardana (2023) point out, generative AI systems construct adaptive learning paths tuned towards customer and organizational objectives. Additionally, gamification can be used in retail training to motivate employees when such training may be used with rewards, as Getman et al. (2024) show how rewards can increase the level of engagement. However, input from a human element is important so that training mirror the values in a customer focused retail environment.

The combination of AI enhanced performance tracking systems can create real time feedback and predictive insights to transform workforce management in retail (Zavyalova et al. 2023). As an example, Chukwuka and Dibie (2024) demonstrate that the use of AI tools allows managers to tell when achievement took place better. In retail, employee performance is an absolute determinant of customer satisfaction which is critical. Rathnayake and Gunawardana (2023) however, warn that excessive monitoring can cause stress among employees. To use AI systems intrinsically, therefore, retailers will need to design them transparently, involving employees in the system's design and in particular involving retailers in the basic choices made when implementing the system.

Overall, AI can help the retail sector tackle its HR problems with well expanded recruiting processes, personalization of training, and to enhance performance management. For sustainable benefits to be achieved, this demand for ethical implementation and transparency.

## 8. Conclusion

By streamlining recruitment, personalizing training, and optimizing performance management, AI has the potential to transform HRM in the retail sector. It offers thematic insights into its ability to manage high turnover, employee needs, and to give real time feedback. To use AI in retail HR ethically and transparently is important for building trust and inclusivity because it is important for HR managers in retail. It is important to find the balance between automation and human oversight to ensure employee engagement and satisfaction remain high. Future research should delve into how these technologies will impact the workforce over the long term, and what strategies there are to address ethical concerns.

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#### References

Afolabi, J. O. A., Olatoye, F. O., Eboigbe, E. O., Abdul, A. A., & Daraojimba, H. O. (2023). Revolutionizing retail: hr tactics for improved employee and customer engagement. *International Journal of Applied Research in Social Sciences*, 5(10), 487-514. https://doi.org/10.51594/ijarss.v5i10.635

AIPRM. (2025). AI in the Workplace Statistics 2024. https://www.aiprm.com/ai-in-workplace-statistics/

- Albaroudi, E., Mansouri, T., & Alameer, A. (2024). A Comprehensive Review of AI Techniques for Addressing Algorithmic Bias in Job Hiring. *AI*, 5(1), 383-404. <u>https://doi.org/10.3390/ai5010019</u>
- Bandari, V. (2019). Exploring the transformational potential of emerging technologies in human resource analytics: a comparative study of the applications of IoT, AI, and cloud computing. *Journal of Humanities and Applied Science Research*, 2(1), 15-27. https://journals.sagescience.org/index.php/JHASR/article/view/41
- Bhargava, A., Bester, M., & Bolton, L. (2021). Employees' perceptions of the implementation of robotics, artificial intelligence, and automation (RAIA) on job satisfaction, job security, and employability. *Journal of Technology in Behavioral Science*, 6(1), 106-113. <u>https://doi.org/10.1007/s41347-020-00153-8</u>
- Black, J. S., & van Esch, P. (2020). Al-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
- Chukwuka, E. J., & 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), 269-282. <u>https://abjournals.org/ijebi/wp-content/uploads/sites/5/journal/published\_paper/volume-7/issue-2/IJEBI\_HET5STYK.pdf</u>
- Cramarenco, R. E., Burcă-Voicu, M. I., & Dabija, D. C. (2023). The impact of artificial intelligence (AI) on employees' skills and well-being in global labor markets: A systematic review. *Oeconomia Copernicana*, 14(3), 731-767. <u>https://www.ceeol.com/search/article-detail?id=1192670</u>

- Getman, A. P., Yaroshenko, O. M., Demenko, O. I., Lutsenko, O. Y., & Prokopiev, R. Y. (2024). Gamification for staff motivation: Impact on work efficiency and corporate culture at the international level. *Journal of Economics and Management*, 46, 274-299. https://intapi.sciendo.com/pdf/10.22367/jem.2024.46.11
- Hasija, A., & Esper, T. L. (2022). In artificial intelligence (AI) we trust: A qualitative investigation of AI technology acceptance. *Journal of Business Logistics*, 43(3), 388-412. <u>https://doi.org/10.1111/jbl.12301</u>
- 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. <u>https://doi.org/10.1007/s10551-022-05049-6</u>
- Kelan, E. K. (2024). Algorithmic inclusion: Shaping the predictive algorithms of artificial intelligence in hiring. *Human Resource Management Journal*, 34(3), 694-707. https://doi.org/10.1111/1748-8583.12511
- Malik, A., Budhwar, P., Mohan, H., & 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), 97-115. <u>https://doi.org/10.1002/hrm.22133</u>
- Nazareno, L., & Schiff, D. S. (2021). The impact of automation and artificial intelligence on worker well-being. *Technology in Society*, *67*, 101679. https://doi.org/10.1016/j.techsoc.2021.101679
- Okatta, C. G., Ajayi, F. A., & Olawale, O. (2024). Navigating the future: integrating AI and machine learning in hr practices for a digital workforce. *Computer Science & IT Research Journal*, 5(4), 1008-1030. <u>https://doi.org/10.51594/csitrj.v5i4.1085</u>
- Patil, S. B., & Josep, L. A. (2024). The Opportunities of Artificial Intelligence in the Field of Education: An Examination of Obstacles and Resolutions. *Vinayasādhana*, *15*(1), 39-53. <u>https://dvkjournals.in/index.php/vs/article/view/4366</u>
- Prentice, C., & Nguyen, M. (2020). Engaging and retaining customers with AI and employee service. *Journal of Retailing and Consumer Services*, 56, 102186. <u>https://doi.org/10.1016/i.iretconser.2020.102186</u>
- Rahman, K. O., Rezvi, R. I. , Nasrullah, F., Islam, M. S., Hasan, M., Khanam, A., & Akash, A. H. (2025). Business Model Canvas: Business Analytics on Gas stations with C-stores in United States. *Journal of Business and Management Studies*, 7(1), 180-185. https://doi.org/10.32996/jbms.2025.7.1.13
- Rathnayake, C., & Gunawardana, A. (2023). The role of generative ai in enhancing human resource management recruitment, training, and performance evaluation perspectives. *International Journal of Social Analytics*, 8(11), 13-22. https://norislab.com/index.php/ijsa/article/view/53
- Sakka, F., El Maknouzi, M. E. H., & 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, 1-14. https://dlwgtxts1xzle7.cloudfront.net/
- Shukla, S. K., Sushil, & Sharma, M. K. (2019). Managerial paradox toward flexibility: Emergent views using thematic analysis of literature. *Global Journal of Flexible Systems Management*, 20(4), 349-370. https://doi.org/10.1007/s40171-019-00220-x
- Statista. (2025). Use of artificial intelligence (AI) in recruiting, interviewing, and hiring according to Human Resources (HR) professionals in the United States in 2024. https://www.statista.com/statistics/1535364/hr-use-of-ai-in-recruiting-us/
- Votto, A. M., Valecha, R., Najafirad, P., & Rao, H. R. (2021). Artificial intelligence in tactical human resource management: A systematic literature review. *International Journal of Information Management Data Insights*, 1(2), 100047. <u>https://doi.org/10.1016/i.jijmei.2021.100047</u>
- Yanamala, K. K. R. (2024). Strategic implications of Al integration in workforce planning and talent forecasting. *Journal of Advanced Computing* Systems, 4(1), 1-9. <u>https://doi.org/10.69987/JACS.2024.40101</u>
- Zavyalova, E. B., Volokhina, V. A., Troyanskaya, M. A., & Dubova, Y. I. (2023). A humanistic model of corporate social responsibility in e-commerce with high-tech support in the artificial intelligence economy. *Humanities and social sciences communications*, *10*(1), 1-10. https://doi.org/10.1057/s41599-023-01764-1