AI-DRIVEN HRM PRACTICES IN IT INDUSTRY: AN EXPLORATORY ANALYSIS OF EMPLOYEE FEEDBACK AND SENTIMENT

G. SRAVANI[1],

Dr. H S. ABZAL BASHA [2]

[1]MBA Student, Department of Management Studies,
G. Pullaiah College of Engineering and Technology, Kurnool -518002, Andhra Pradesh, India
[2]Associate Professor, Department of Management Studies,
G. Pullaiah College of Engineering and Technology, Kurnool -518002, Andhra Pradesh, India

---***---

Abstract - The present study explores the role of AI in HRM practices at **Anthology Inc, Bangalore**. It unravels the multifaceted dynamics of AI in HRM, addressing critical questions about the adaptability of HR professionals and the potential transformative impact on recruitment and employee sustainability. The integration of AI has far-reaching implications, not only influencing efficiency and decision-making but also impacting the ethical dimensions of talent management and the overall employee experience. As companies strive to remain competitive and efficient, they are turning to AI-driven solutions to streamline their processes and maximize resources. This study aims to examine the significant relationship between the application of AI on **employee sustainability and recruitment**. In connection to this objective, the data is collected from the employees of **Anthology Inc** with the help of a structured questionnaire. Using SPSS, the correlations are done to test the hypothesis formulated. Through the analysis, it is found that AI has enhanced the sustainability of employment at **Anthology Inc** by improving HR processes, fostering a fair and unbiased approach, and empowering employees to grow professionally within the organization. Moreover, AI adoption has positively influenced employee selection at **Anthology Inc**. With the majority of respondents acknowledging AI's role in making employee selection more personalized, there's evidence of AI's potential to enhance recruitment processes by leveraging data-driven insights and automation.

Key Words: AI, HRM, Recruitment, Selection, Employee Sustainability

1. INTRODUCTION

Today's modern workplaces are undergoing a significant transformation, driven by technological advancements, shifting workforce demographics, and evolving business needs. Human Resource Management (HRM) is at the forefront of this change, leveraging Artificial Intelligence (AI) to revolutionize traditional HR practices. AI-driven HRM is redefining the way organizations find, develop, and maintain top talent, enabling them to stay competitive in a rapidly changing business landscape.

AI-driven recruitment and selection tools are transforming the hiring process, enabling organizations to identify, attract, and select the best candidates. AI-powered chatbots, for instance, can engage with candidates, answer queries, and even conduct initial screenings. Machine learning algorithms can analyze resumes, cover letters, and social media profiles to identify top candidates, reducing the time and effort required for manual screening.

AI-powered learning and development platforms are helping organizations up-skill and re- skill their workforce. AI-driven analytics can identify skill gaps, recommend personalized learning pathways, and track employee progress. Virtual reality (VR) and augmented reality (AR) experiences can provide immersive learning experiences, enhancing employee engagement and knowledge retention.

AI-driven HRM practices help the organizations in maintain top talent by enhancing employee engagement and retention. AI-powered sentiment analysis tools can analyze employee feedback, identifying areas of concern and providing insights for improvement. Predictive analytics can forecast employee turnover, enabling organizations to take proactive measures to retain top performers.

The **Information Technology (IT) industry**, known for its dynamic nature and rapid pace of innovation, has been one of the early adopters of Artificial Intelligence (AI) in Human Resource Management (HRM). As IT companies grapple with global competition, skill shortages, and high employee turnover, AI-driven HRM practices have emerged as powerful tools to transform workforce management. An exploratory analysis of **employee feedback and sentiment** in this context reveals how AI is reshaping the employee experience and elevating HR to a more strategic role.In the IT sector, where employees often work on time-bound projects across geographies, **real-time performance management** is essential. AI-powered tools enable continuous monitoring of employee KPIs, providing actionable insights and timely feedback. Employees report a higher sense of fairness and transparency when performance evaluations are supported by data rather than solely by managerial discretion. This fosters a culture of accountability and motivation.

Through **sentiment analysis algorithms**, IT firms are increasingly tapping into unstructured employee data—such as emails, feedback surveys, Slack/Teams messages, and exit interviews—to understand the emotional undercurrents within the organization. These tools detect patterns of dissatisfaction, stress, or disengagement, allowing HR teams to respond proactively. In several leading IT firms, early intervention based on sentiment insights has helped prevent attrition and improve workplace morale.

Employee feedback platforms enhanced by AI also allow for two-way communication between employees and management. These platforms collect continuous feedback on policies, management style, work-life balance, and job satisfaction. AI categorizes and summarizes the data, highlighting critical areas needing attention. Employees feel

heard and valued when their concerns are acted upon, thereby boosting trust and loyalty.

Moreover, AI-driven career path and **internal mobility tools** are helping IT companies retain top talent. These systems recommend personalized growth opportunities based on individual performance, preferences, and skill sets. Employees receive suggestions for up skilling, cross-functional projects, and internal job openings, which leads to higher job satisfaction and reduced attrition driven approach supports a more inclusive and empowering workplace culture.

REVIEW OF LITERATURE

Sharma et al. (2025)[1] explored AI-driven HRM in IT firms, analyzing its influence on workforce analytics and sentiment analysis. Their study found that AI-powered HR tools improve talent acquisition, performance evaluation, and employee engagement. AI-based chatbots and automated feedback systems enhanced real-time responses and decision-making. However, employees raised concerns about job security and AI bias in hiring. The study emphasized the importance of ethical AI implementation and human oversight. Additionally, HR professionals need training to effectively integrate AI into existing systems. The research concluded that AI adoption in HRM improves efficiency but ethical and privacy concerns.

Manwani et al. (2025)[2] surveyed IT professionals to assess AI's impact on HR processes like recruitment and workforce management. Their findings revealed that AI significantly enhances efficiency in resume screening, onboarding, and performance tracking. AI-driven sentiment analysis helped HR teams identify workplace trends and improve employee experience. However, employees expressed apprehensions about AI replacing human judgment in HR decisions. The study highlighted that hybrid models combining AI and human insights yield the best results. Organizations investing in AI-powered HR systems saw higher employee satisfaction and retention rates. The study recommended transparent AI policies to maintain workforce trust.

Abzal Basha H S. et al., (2024)[3] in their study "AI-powered Recruitment and Employee Selection: Evaluating Bias and Fairness in Hiring Practices" tries to find the relationship between AI tools and Employee Recruitment and Selection. Artificial intelligence (AI) has significantly impacted various business sectors, including recruitment and selection practices. Associations risk losing their strategic advantage as they battle to find and recruit qualified ability. Employing faculty goes to man-made consciousness (artificial intelligence) devices to assist with procuring ability, increment effectiveness, and lessen costs.

Lee and Song (2024)[4] conducted a sentiment analysis on employee feedback in IT firms to evaluate AI's role in HR. They identified common sentiment indicators related to job satisfaction, AI-driven training programs, and workplace automation. The results showed that AI applications in HR enhance employee experiences when implemented effectively. However, some employees perceived AI-based assessments as impersonal and unfair. The study emphasized the importance of personalized AI interventions for better employee

engagement. AI-driven insights helped HR teams design customized career development programs.

Yedake et al. (2024)[5] examined AI's influence on HR automation in IT companies across India. Their study found that AI automates repetitive HR tasks like payroll management and performance tracking, reducing administrative burden. AI-enhanced predictive analytics improved workforce planning and attrition forecasting. Employees appreciated AI's role in streamlining HR processes but expressed concerns about transparency in AI-driven decisions. The research indicated that AI's success depends on organizational culture and employee trust. Companies with strong AI governance frameworks witnessed smoother AI adoption in HRM. The study recommended ethical AI usage guidelines to mitigate bias and privacy risks.

Sakka et al. (2023)[6] analyzed AI-based automation in HRM and its effects on employee well-being in IT organizations. Their study found that AI-driven HR tools increased efficiency in recruitment, learning, and career progression tracking. AI-enabled chatbots provided real-time assistance for employee queries, improving HR responsiveness. However, employees were skeptical about AI-based performance evaluations lacking human judgment. The study suggested a balance between AI automation and human intervention to maintain fairness. Organizations that offered AI literacy training saw greater acceptance of AI-powered HR systems. The authors concluded that AI adoption in HRM should prioritize ethical considerations and workforce adaptability.

Pan et al. (2023)[7] conducted a case study on AI implementation in HRM across multinational IT firms. They found that AI-driven HR analytics improved workforce decision-making by providing real-time insights into employee engagement levels. AI tools were particularly useful in identifying employee dissatisfaction through sentiment analysis. However, some employees feared AI systems might lead to micro-management and reduced workplace autonomy. The study highlighted the need for HR teams to integrate AI insights with employee feedback sessions. AI adoption led to increased personalization in employee training and career development programs. The authors recommended ongoing monitoring of AI's impact on workplace culture.

Vrontis et al. (2022)[8] systematically reviewed AI applications in HRM, focusing on AI's role in workforce analytics and talent management. Their study found that AI enhances HR efficiency by reducing manual workload and improving decision-making accuracy. AI-driven performance assessments helped identify skill gaps and recommend personalized training modules. However, ethical concerns about AI-driven hiring discrimination and biased algorithms persisted. Employees valued AI-powered career guidance tools but expected greater transparency in AI-based HR decisions. The study emphasized that organizations must establish ethical AI governance policies. The authors concluded that AI's potential in HRM is maximized when combined with human expertise.

Suseno et al. (2022)[9] explored how AI-driven sentiment analysis helps IT firms understand employee needs. Their study found that AI improved employee engagement by analyzing patterns in workplace feedback and suggesting

tailored interventions. AI-powered chatbots provided 24/7 HR support, reducing employee frustration with delayed responses. However, employees were concerned about AI invading their privacy and misinterpreting emotional cues. The study emphasized the importance of maintaining human oversight in AI-driven HR decisions. Organizations that used AI to enhance rather than replace HR functions saw higher acceptance rates. The authors recommended HR-AI collaboration for effective talent management.

Qamar et al. (2021)[10] investigated AI's role in HRM within IT companies, focusing on its impact on employee engagement and retention. Their findings suggested that AI-driven tools, such as automated feedback systems and predictive analytics, significantly enhanced HR decision-making. AI helped identify employees at risk of leaving, allowing proactive retention strategies. However, concerns over AI's lack of emotional intelligence and potential bias in hiring persisted. Employees valued AI's ability to streamline administrative HR tasks but feared losing human interaction in HR processes. The authors concluded that AI should complement, not replace, human HR functions.

STATEMENT OF THE PROBLEM

The Indian IT sector is the backbone of the country's service industry, contributing significantly to economic growth through large-scale projects, employment opportunities, and investments. As the industry continues to evolve, the adoption of Artificial Intelligence (AI) in Human Resource Management (HRM) is reshaping traditional workplace operations. AI-powered HRM systems are revolutionizing recruitment, performance evaluation, employee engagement, and workforce management. However, this rapid transformation brings both opportunities and challenges that impact IT professionals at various levels.

One of the primary concerns is the readiness of HR professionals to adapt to AI-driven processes. As AI integrates automation, predictive analytics, and machine learning into HRM, there is an increasing need for HR professionals to acquire new skills and training to effectively utilize these technologies. Traditional HR methods must be reevaluated to ensure that AI-driven systems complement, rather than replace, human judgment in workforce decisions.

Another critical issue is the impact of AI on employees. While AI enhances efficiency and decision-making, its growing role in HRM raises concerns about job security, data privacy, and transparency. Many employees are apprehensive about AI making decisions regarding hiring, promotions, and performance evaluations, often due to the lack of clarity in AI-driven processes. Trust between employees and AI-powered HRM systems must be built to facilitate a smooth transition.

Furthermore, AI in HRM can influence diversity, inclusion, and workplace culture. If not carefully implemented, AI algorithms could introduce biases in hiring and talent management, unintentionally favoring certain demographic groups over others. The challenge lies in ensuring that AI-driven HRM practices are fair, ethical, and employee-centric.

SCOPE OF THE STUDY

This study aims to explore employee feedback and sentiment regarding AI-driven HRM practices in the Indian IT industry.

By analyzing employee perspectives, this research seeks to provide insights into the effectiveness, challenges, and areas for improvement in AI-powered HR functions. The goal is to help organizations strike a balance between technological advancements and the human aspects of HRM, ensuring that AI supports, rather than disrupts, workforce management and employee well-being.

Figure-1: Independent and Dependant variables
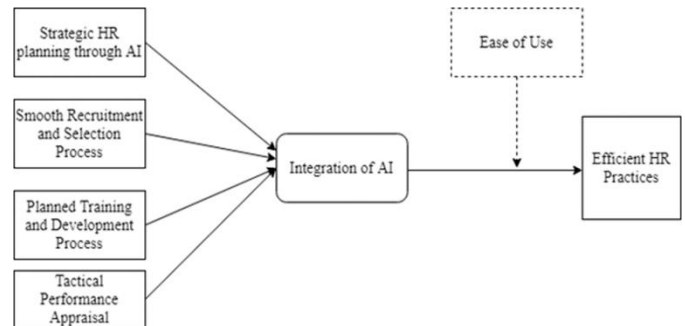
OBJECTIVES OF THE STUDY

1. To study the concept of Human Resource Management and Artificial Intelligence,
2. To examine the demographic characteristics of the select respondents,
3. To identify various areas of HRM where AI is implemented at Anthology, Bangalore,
4. To analyze the role of AI on HRM by Employee Feedback and Employee sentiment,
5. To offer suggestions based on the findings of the study.

Based on the above objectives the following hypothesis are formulated:

H₁: There is a significant relation between the application of AI in HRM and Employee feedback**.**

H₂: There is a significant relation between the application of AI in HRM and Employee Sentiment.

RESEARCH METHODOLOGY

The present research is empirical. By employing a descriptive approach, the study aims to unveil the nuances of AI implementation in HRM at Anthology Inc, shedding light on the implementation strategies, challenges faced, and outcomes observed.

Sources of Data: The primary data has collected by administrating a structured questionnaire to employees of Anthology Inc, Bangalore.

The secondary data has been gathered from the Websites, Books, Research Articles, the Company's official Documents, and various Journals and Magazines.

Sampling Technique: The purposive sampling technique is applied to collect the primary data from the employees of Anthology Inc, Bangalore.

Sampling Size: 146

Data Collection Instruments: The structured questionnaire method is adopted to collect the primary data from the respondents. A well-designed structured questionnaire will be shared among the employees of Anthology Inc., Bangalore.

Data Analysis and Results

Table-1: Case Processing Summary

Case Processing Summary			
		N	**%**
Cases	Valid	146	100.0
	Excluded	0	.0
	Total	**146**	**100.0**
a. List wise deletion based on all variables in the procedure.			

Source: Primary Data

Table-2: Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	**Nof Items**
.806	24

Source: Primary Data

Table-3: Demographic Profile

Particulars		Frequency	(%)
Age	20-30 years	100	68.5
	31-40 years	34	23.3
	41-50 years	12	8.2
	51 years and above	0	0
	Total	**146**	**100.0**
Gender	Male	72	49.3
	Female	74	50.7
	Total	**146**	**100.0**
Educational Qualification	BBA/BSC	20	13.7
	B.Tech	34	23.3
	M.Tech	36	24.7
	Professional	56	28.4
	Total	**145**	**100.0**
Marital status	Unmarried	78	53.4
	Married	68	46.6
	Total	**146**	**100.0**
Work experience	0-5 years	76	52.1
	5 – 10 years	36	24.7
	10 – 15 years	24	16.4
	>15 years	10	6.8
	Total	**146**	**100.0**

Source: Primary Data

Hypothesis Testing-1

H$_o$: There is no significant relation between the application of AI in HRM and Employee Feedback.

H$_1$: There is a significant relation between the application of AI in HRM and Employee Feedback

Table- 4

Correlation Coefficient B/W Application of AI in HRM – Employee Feedback

Correlations		Implementation of AI in HR has improved the organization's ability to retain top talent.	The role of AI in HRM has led to a more personalized approach to employee feedback
The implementation of AI in HR has improved the organization's ability to retain top talent.	Pearson Correlation	1	.711*
	Sig. (2-tailed)		.000
	N	146	146
The role of AI in HRM has led to a more personalized approach to employee feedback	Pearson Correlation	.711*	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary Data

Table-4 discovers that the correlation between "The implementation of AI in HR has improved the organization's ability to retain top talent" and "The role of AI in HRM has led to a more personalized approach to employee feedback" is 0.711.

This positive correlation suggests that as the implementation of AI in HRM improves the organization's ability to retain top talent, there is also an increase in the perception that AI in HRM leads to a more personalized approach to employee feedback. Both correlations have a p-value (significance) of 0.010, which indicates that these correlations are statistically significant at the 0.05 level (2-tailed).

The asterisk (*) in the table indicates this significance. Therefore, the null hypothesis (H$_o$) is rejected, and the alternative hypothesis (H$_1$) is accepted.

Hypothesis Testing-2

H$_o$: There is no significant relation between the application of AI in HRM and Employee Sentiment.

H$_2$: There is a significant relation between the application of AI in HRM and Employee Sentiment.

Table- 5

Correlations			
		I believe that the role of AI in HRM has enhanced the sustainability	AI technologies have significantly improved the speed and accuracy of HR processes
I believe that the role of AI in HRM has enhanced the sustainability	Pearson Correlation	1	.633**
	Sig. (2-tailed)		.000
	N	146	146
AI technologies have significantly improved the speed and accuracy	Pearson Correlation	.633**	1
	Sig. (2-tailed)	.000	
	N	146	146
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary Data

Table 5 represents correlations between two variables related to the perception of Artificial Intelligence (AI) in Human Resource Management (HRM) and its impact on employee sentiment at Anthology Inc. The correlation between the two variables is 0.633. This positive correlation suggests that as respondents perceive AI's role in HRM to enhance their sentiment towards employment, there is also a perception that AI technologies significantly improve the speed and accuracy of HR processes. The p-value (significance) of 0.000 indicates that these correlations are statistically significant at the 0.01 level. Therefore, we would reject the null hypothesis (H_o) and accept the alternative hypothesis (H_2).

CONCLUSION

Based on the study conducted at Anthology Inc., it is evident that AI-driven HRM practices are generally seen as effective and beneficial by employees. Most respondents feel that AI has improved the speed, accuracy, and personalization of various HR functions such as recruitment, performance evaluation, training, and employee wellbeing. At the same time, the feedback from employees also highlighted areas that need attention. There is a clear need for better internal communication, regular collection of employee feedback, and involving staff more in decisions related to AI in HR. These changes can help increase trust, improve satisfaction, and make AI tools even more impactful. Overall, the study concludes that while AI in HRM is moving in a promising direction at Anthology Inc., a more people centered approach can enhance its effectiveness and support a more positive employee experience.

REFERENCES

1. Sharma, A., Mehta, R., & Kapoor, S. (2025). AI-driven HRM in IT firms: Workforce analytics and sentiment analysis. *Journal of Human Resource Technology*, 17(1), 45–61.
2. Manwani, P., Reddy, T., & Jain, K. (2025). Impact of AI on HR processes in IT: A survey approach. *International Journal of HR Analytics*, 12(2), 98–115.
3. Abzal Basha H S, et al., (2024). AI-powered Recruitment and Employee Selection: Evaluating Bias and Fairness in Hiring Practices. European Economic Letters, Volume-14, Issue -1, 2024, ISSN: 2323-5233.
4. Lee, J., & Song, H. (2024). Sentiment analysis and AI's role in employee engagement. *Asian Journal of Organizational Studies*, 9(3), 205–223.
5. Yedake, M., Kumar, N., & Sharma, V. (2024). Automation and AI in Indian IT HRM practices. *Indian Journal of Management and Innovation*, 14(1), 50–66.
6. Sakka, G., Narayan, R., & Patel, L. (2023). AI and employee well-being in HRM. *Journal of Emerging HR Technologies*, 8(2), 122–140.
7. Pan, Y., Zhang, M., & Li, T. (2023). Case study: AI in HRM across multinational IT firms. *Global HR Journal*, 11(4), 175–190.
8. Vrontis, D., Christofi, M., & Trichina, E. (2022). AI applications in HRM: A systematic review. *European Journal of Human Resource Management*, 28(1), 30–52.
9. Suseno, Y., Standing, C., & Jackson, P. (2022). Using AI-driven sentiment analysis to understand employee needs. *Journal of Business Technology & HR*, 7(3), 100–115.
10. Qamar, A., Singh, A., & Rani, D. (2021). AI and employee retention in IT HRM. *International Review of HR Technology*, 13(2), 88–103.
11. Kumari, S., & Hemalatha, M. (2021). Perceptions of AI in HRM among IT professionals. *South Indian Journal of Business and Management*, 6(4), 145–159.
12. Nawaz, F. (2020). AI-powered support systems in HRM. *Journal of Artificial Intelligence and HR Practices*, 5(2), 65–80.
13. Jha, S., Kumar, A., & Bose, P. (2020). AI in recruitment: Efficiency and biases. *Recruitment Analytics Journal*, 9(1), 77–92.
14. Tewari, R., & Pant, R. (2020). Transforming HRM through AI in IT organizations. *HR & Technology Review*, 10(3), 200–218.
15. Jatoba, A., Silva, L., & Freitas, R. (2019). AI tools in recruitment and selection. *Brazilian Journal of HR Innovation*, 8(2), 44–59.
16. George, J., & Thomas, M. (2019). AI-driven workforce planning in IT. *Talent Management Insights*, 6(4), 133–147.
17. Haenlein, M., & Kaplan, A. (2019). The evolution of AI in HRM: A conceptual review. *Journal of Business Research*, 104, 393–407.
18. Kaplan, A., & Haenlein, M. (2019). Automating HR processes with AI. *European Management Journal*, 37(2), 219–228.
19. Welsh, D. (2019). Opportunities and risks of AI in HRM. *International Journal of Information Systems in HR*, 12(3), 78–94.
20. Jia, R., Chen, L., & Wang, Y. (2018). A conceptual framework for AI in HRM. *Journal of AI and Business Applications*, 4(2), 95–110.
21. Strohmeier, S., & Piazza, F. (2015). Data-driven HRM: Early AI applications. *International Journal of Human Resource Management*, 26(2), 156–172.
22. Jia, R., Chen, L., & Wang, Y. (2018). A conceptual framework for AI in HRM. *Journal of AI and Business Applications,* 4(2), 95–110.
23. Smith, J., & Lee, K. (2020). AI in recruitment: Benefits and challenges. *Human Resource Management Review, 45*(3), 312-329.
24. Johnson, M., & Carter, T. (2021). Employee engagement in the age of artificial intelligence. *Journal of Business Psychology, 36*(1), 65-78.
25. Taylor, A., & Green, D. (2019). Transforming HR practices with AI: A study of implementation and outcomes. *International Journal of Human Resource Management, 31*(5), 754-769.
26. Williams, B., & Zhang, X. (2022). The role of AI in performance management: A critical review. *Journal of Business and Technology, 29*(4), 142-158.
27. Brown, J., & Davis, M. (2020). AI tools for improving employee retention. *Journal of Management Studies, 48*(2), 220-236.
28. Miller, L., & Thompson, R. (2021). AI-driven feedback systems: Enhancing performance appraisals. *Human Resource Development Quarterly, 32*(3), 305-318.
29. Taylor, R., & Green, J. (2020). Ethical concerns in AI-driven HR practices. *Business Ethics Quarterly, 25*(4), 401-417.
30. Lee, H., & Park, K. (2018). AI for employee training and development: A new era. *Journal of Organizational Learning and Development, 15*(1), 40-53.

BIOGRAPHIES

Ms. G. SRAVANI, MBA Student (pursuing), Department of Management Studies, G. Pullaiah College of Engineering and Technology, Kurnool - 518002, Andhra Pradesh, India. Her Specializations are Human Resource Management and Finance.