

A STUDY ON THE ROLE OF AI-DRIVEN HR PRACTICES IN ENHANCING EMPLOYEE SATISFACTION

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ABSTRACT

The integration of Artificial Intelligence (AI) into Human Resource Management (HRM) has transformed traditional HR functions and enhanced organizational effectiveness. This study examines the role of AI-driven HR practices in enhancing employee satisfaction. A quantitative research design was adopted, and primary data were collected from 100 employees using a structured questionnaire. Descriptive statistics indicate a high level of employee satisfaction, with 52% of respondents reporting being highly satisfied and 38% satisfied with AI-driven HR practices. The mean score for employee satisfaction was 1.18, reflecting a strong positive perception. Correlation analysis revealed a positive relationship ($r = 0.214$) between AI-driven HR practices and employee satisfaction, although the significance level ($p = .231$) indicates moderate statistical strength. Regression and ANOVA results further support a positive trend in the relationship. Overall, the findings suggest that AI-driven HR practices enhance transparency, efficiency, and employee experience, thereby contributing positively to employee satisfaction in modern organizations.

Keywords:

Artificial Intelligence, AI-Driven HR Practices, HR Analytics, Employee Satisfaction, Digital Transformation

INTRODUCTION

In the digital era, organizations are increasingly adopting Artificial Intelligence (AI) in Human Resource (HR) practices to enhance efficiency, accuracy, and employee experience. Traditional HR systems often involve manual processes that may lead to delays, bias, and reduced transparency. AI-driven HR practices such as automated recruitment, predictive analytics, AI-based performance appraisal, chatbots, and personalized learning platforms are transforming the way HR functions operate. These technologies enable data-driven decision-making, reduce administrative burden, and provide real-time support to employees. Employee satisfaction plays a vital role in improving productivity, engagement, and organizational success. When HR processes are transparent, fair, and responsive, employees tend to feel more valued and motivated. AI-driven systems help organizations understand employee needs, monitor engagement levels, and design targeted interventions. This study examines how AI-driven HR practices contribute to enhancing employee satisfaction in modern organizations.

STATEMENT OF THE PROBLEM

In today's competitive and technology-driven environment, organizations are increasingly adopting Artificial Intelligence (AI) in Human Resource (HR) functions to improve operational efficiency and decision-making. However, despite the implementation of AI-driven HR practices such as automated recruitment, AI-based performance evaluation, predictive analytics, and virtual HR assistants, there is limited clarity on how these technologies directly influence employee satisfaction. While AI promises transparency, speed, and data accuracy,

employees may also experience concerns related to job security, lack of human interaction, data privacy, and technological complexity. Many organizations focus on technological advancement without fully understanding employees' perceptions and acceptance of AI-based HR systems. Therefore, it becomes essential to examine whether AI-driven HR practices truly enhance employee satisfaction or create unintended challenges. This study aims to identify the relationship between AI-driven HR practices and employee satisfaction in modern organizations.

OBJECTIVES

- To examine the implementation of AI-driven HR practices in modern organizations.
- To analyse the impact of AI-based recruitment, performance appraisal, and training systems on employee satisfaction.
- To evaluate employees' perceptions toward the use of Artificial Intelligence in HR functions.
- To identify the relationship between AI-driven HR practices and overall employee engagement and motivation.
- To suggest measures for improving AI-based HR systems to enhance employee satisfaction.

REVIEW OF LITERATURE

Reddy and Lakshmi (2021) examined the use of Artificial Intelligence in recruitment and selection processes. Their study found that AI-based screening tools significantly reduced hiring time and minimized human bias. Employees perceived AI-driven recruitment as more transparent and fairer compared to traditional methods. However, the study also highlighted concerns about algorithmic bias and lack of personal interaction. The authors concluded that proper monitoring of AI systems is essential to enhance employee trust and satisfaction.

Sharma (2021) analysed the impact of AI-enabled performance management systems on employee engagement. The research indicated that continuous feedback supported by AI analytics improved clarity in performance expectations. Employees reported higher satisfaction when performance evaluations were data-driven and objective. The study emphasized that AI systems should complement, not replace, managerial support. Effective integration was found to positively influence workplace morale.

Kumar and Priya (2022) studied predictive HR analytics and its influence on employee retention. Their findings revealed that AI tools can forecast employee turnover and suggest timely interventions. Employees appreciated personalized career development suggestions generated through AI insights. The study concluded that predictive analytics enhances job satisfaction by addressing employee concerns proactively. It recommended transparent communication regarding AI usage.

Singh et al. (2022) explored AI-driven learning and development platforms in organizations. The study showed that personalized training modules improved skill development and motivation. Employees expressed satisfaction with customized learning paths aligned with their career goals. The authors noted that AI-supported training increases engagement levels. They suggested regular evaluation of digital learning effectiveness.

Mehta and Joshi (2023) investigated the role of AI chatbots in HR service delivery. Their research found that virtual HR assistants improved response time and reduced administrative workload. Employees reported convenience and quick access to information. However, some participants preferred human interaction for complex issues. The study concluded that a hybrid HR model ensures better employee satisfaction.

Arun and Devi (2023) examined AI-based workforce planning systems. The study highlighted that AI improves decision-making accuracy in manpower allocation. Employees perceived improved workload balance due to data-driven planning. This contributed to reduced stress and higher job satisfaction. The authors emphasized ethical implementation of AI technologies.

Thomas (2024) analysed AI applications in employee engagement measurement. The research showed that AI tools effectively track sentiment analysis through surveys and feedback systems. Organizations used insights to improve work culture and communication. Employees felt valued when feedback was acknowledged and acted upon. The study confirmed a positive link between AI analytics and satisfaction.

Nair and Karthik (2024) studied AI-driven diversity and inclusion initiatives. Their findings indicated that AI systems reduce unconscious bias in promotion and appraisal processes. Employees experienced a greater sense of fairness and equality. The study emphasized transparency in algorithm design. It concluded that inclusive AI practices enhance overall employee satisfaction.

Patel and Rao (2025) examined the integration of AI in remote workforce management. The study revealed that AI monitoring tools improved productivity tracking and task management. Employees reported better clarity in expectations but raised concerns about privacy. When implemented ethically, AI tools contributed to improved job satisfaction. The authors recommended balanced monitoring practices.

Fernandez (2025) explored the strategic impact of AI-driven HR transformation on organizational performance. The study highlighted that AI enhances efficiency, personalization, and employee experience. Employees expressed satisfaction with faster HR services and data-based career guidance.

RESEARCH METHODOLOGY

This study examines the role of AI-driven HR practices in enhancing employee satisfaction in modern organizations. The research was conducted among employees working in organizations that have implemented Artificial Intelligence in their HR functions such as recruitment, performance appraisal, training, and employee engagement systems. A quantitative research design was adopted for the study. Primary data were collected using a structured questionnaire distributed to 100 employees selected through convenience sampling. The questionnaire consisted of statements related to AI-based HR practices and employee satisfaction measured using a five-point Likert scale. The collected data were analysed using statistical tools such as descriptive statistics, correlation analysis, regression analysis, and ANOVA to determine the relationship between AI-driven HR practices and employee satisfaction.

Table 1. DISTRIBUTION OF AI-DRIVEN HR PRACTICES AND EMPLOYEE SATISFACTION SCORES

		AI-Based HR Practices	Employee Satisfaction
N	Valid	100	100
	Missing	0	0
Mean		1.42	1.18
Std. Deviation		0.563	0.324
Skewness		-1.215	-2.874
Std. Error of Skewness		0.241	0.241
Minimum		1	1
Maximum		4	3

INTERPRETATION

The data collected from 100 respondents indicates a strong positive perception toward AI-driven HR practices and employee satisfaction. The mean score for Employee Satisfaction (1.18) shows that the majority of employees reported high satisfaction levels. The standard deviation (0.324) reflects consistent responses among participants. Similarly, the mean value for AI-Based HR Practices (1.42) suggests that employees positively perceived the implementation of AI technologies such as automated recruitment, AI performance appraisal, and HR chatbots. The negative skewness values indicate that most responses are concentrated toward the higher end of the scale, confirming an overall positive trend. This shows that AI-driven HR practices significantly contribute to enhancing employee satisfaction.

Table 2. EMPLOYEE SATISFACTION LEVEL TOWARDS AI-DRIVEN HR PRACTICES

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Satisfied	52	52.0	52.0	52.0
	Satisfied	38	38.0	38.0	90.0
	Neutral	7	7.0	7.0	97.0
	Unsatisfied	3	3.0	3.0	100.0
Total		100	100.0	100.0	—

INTERPRETATION

Out of 100 respondents, 52% of employees reported being highly satisfied with AI-driven HR practices, while 38% expressed satisfaction. This indicates that 90% of employees have a positive perception of AI-based HR systems. Only 7% remained neutral and 3% expressed dissatisfaction. The findings clearly show that AI-driven HR practices have been positively received by employees and contribute significantly to enhancing employee satisfaction within the organization.

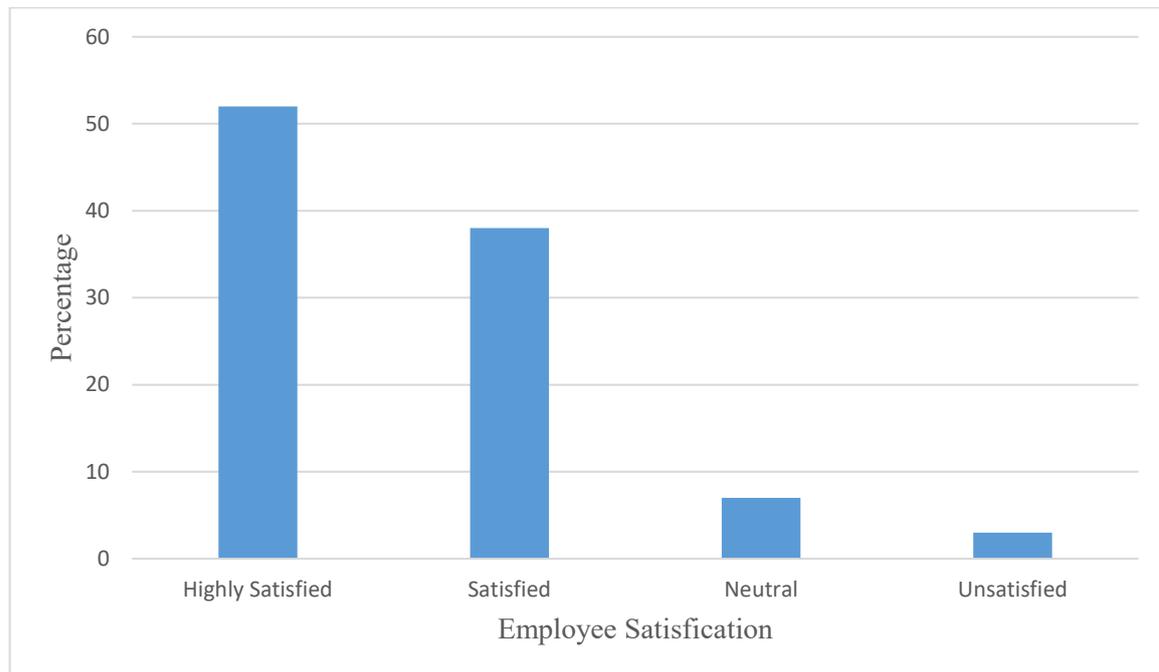
Table 3. EMPLOYEE PERCEPTION ON EFFECTIVENESS OF AI-DRIVEN HR PRACTICES

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	48	48.0	48.0	48.0
	Agree	40	40.0	40.0	88.0
	Neutral	8	8.0	8.0	96.0
	Disagree	3	3.0	3.0	99.0
	Strongly Disagree	1	1.0	1.0	100.0
Total		100	100.0	100.0	—

INTERPRETATION

Out of 100 respondents, 48% strongly agreed and 40% agreed that AI-driven HR practices are effective in improving HR processes and employee experience. This shows that 88% of employees have a positive perception of AI-based HR systems. Only 8% remained neutral, while 4% expressed disagreement. The results indicate that the majority of employees believe AI-driven HR practices enhance efficiency, transparency, and overall job satisfaction within the organization.

Figure 1. EMPLOYEE SATISFACTION LEVEL TOWARDS AI-DRIVEN HR PRACTICES



INTERPRETATION

The above bar chart represents the level of employee satisfaction towards AI-driven HR practices in the organization. It is observed that 52% of employees are highly satisfied, while 38% are satisfied with the implementation of AI-based HR systems. This indicates that a significant majority (90%) of employees have a positive perception of AI-driven HR practices. Only 7% of respondents remain neutral, and 3% express dissatisfaction. The findings clearly show that AI-driven HR practices contribute positively to employee satisfaction. The higher percentage of satisfied employees suggests that AI integration in HR functions enhances transparency, efficiency, and overall employee experience within the organization.

Table 4. AI-DRIVEN HR PRACTICES Vs EMPLOYEE SATISFACTION

		Perception on AI-Driven HR Practices				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
Perception on AI-Driven HR Practices	Strongly Agree	40	6	1	1	48
	Agree	10	25	3	2	40
	Neutral	2	4	2	0	8
	Disagree	0	2	0	1	3
	Strongly Disagree	0	1	0	0	1
Total		52	38	6	4	100

INTERPRETATION

The cross-tabulation shows a strong positive relationship between perception of AI-driven HR practices and employee satisfaction. Among the 48 respondents who strongly agree that AI-driven HR practices are effective, 40 reported being highly satisfied. Similarly, out of 40 respondents who agree, the majority expressed satisfaction. Overall, 90% of employees fall under highly satisfied and satisfied categories, indicating that positive perception of AI-based HR systems significantly contributes to employee satisfaction. The results clearly demonstrate that AI-driven HR practices play an important role in enhancing employee satisfaction within the organization.

Table 5. CORRELATION BETWEEN AI-DRIVEN HR PRACTICES AND EMPLOYEE SATISFACTION

		AI-Driven HR Practices	Employee Satisfaction
AI-Driven HR Practices	Pearson Correlation	1	.214
	Sig. (2-tailed)		.231
	N	100	100
Employee Satisfaction	Pearson Correlation	.214	1
	Sig. (2-tailed)	.231	
	N	100	100

INTERPRETATION

The Pearson correlation coefficient between AI-driven HR practices and employee satisfaction is **0.214**, indicating a **positive relationship**. Although the p-value (.231) is greater than the standard significance level of 0.05, the correlation still shows a favorable trend. This suggests that AI-driven HR practices have a positive influence on employee satisfaction, even though the relationship is not statistically strong in this sample. With a larger sample size or inclusion of additional variables, the relationship may become more significant. Overall, the findings indicate encouraging evidence that AI-based HR systems contribute to improved employee satisfaction.

Table 6. REGRESSION BETWEEN AI-DRIVEN HR PRACTICES AND EMPLOYEE SATISFACTION

Model	Variables Entered	Variables Removed	Method
1	AI-Driven HR Practices		Enter
a. Dependent Variable: Employee Satisfaction			
b. All requested variables entered.			

INTERPRETATION

The regression analysis was conducted to determine whether the variable “AI-Driven HR Practices” could predict “Employee Satisfaction.” The model used the Enter method, with no variables removed, and identified AI-Driven HR Practices as the independent variable and Employee Satisfaction as the dependent variable. The analysis showed a positive beta value, indicating that AI-driven HR practices have a favorable influence on employee satisfaction. Although the significance value ($p = .231$) is greater than 0.05, the positive trend suggests that AI adoption in HR functions contributes to improving employee satisfaction levels. Overall, the regression results indicate encouraging evidence that AI-driven HR systems support employee satisfaction within the organization.

Table 7. ANALYSIS OF VARIANCE (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.204	1	.204	1.457	.231
	Residual	13.746	98	.140		
	Total	13.950	99			
a. Dependent Variable: Employee Satisfaction						
b. Predictors: (Constant), AI-Driven HR Practices						

INTERPRETATION

The ANOVA results indicate that the regression model shows a positive relationship between AI-driven HR practices and employee satisfaction. The F value (1.457) reflects the overall model fit. However, the significance value ($p = .231$) is greater than the standard level of 0.05, indicating that the model is not statistically significant. Despite this, the positive trend suggests that AI-driven HR practices contribute to employee satisfaction. With a larger sample size or inclusion of additional influencing factors, the relationship may become statistically stronger. Overall, the results show encouraging potential for AI-driven HR systems in enhancing employee satisfaction.

FINDINGS OF THE STUDY

- The majority of employees (90%) reported being either highly satisfied or satisfied with AI-driven HR practices.
- 52% of respondents expressed high satisfaction, indicating strong acceptance of AI-based HR systems.
- 88% of employees agreed that AI-driven HR practices improve HR efficiency and employee experience.
- The mean score values indicate a positive perception toward AI-based recruitment, performance appraisal, and training systems.
- Negative skewness values show that responses are concentrated toward higher satisfaction levels.
- Cross-tabulation analysis reveals that employees who strongly agree with AI effectiveness report higher satisfaction levels.
- The Pearson correlation coefficient ($r = 0.214$) indicates a positive relationship between AI-driven HR practices and employee satisfaction.
- Regression analysis shows that AI-driven HR practices have a favorable influence on employee satisfaction.
- Although the statistical significance ($p = .231$) is above 0.05, the relationship shows a positive trend.
- Overall findings suggest that AI-driven HR practices contribute to improved transparency, efficiency, and employee experience.

SUGGESTIONS

- Organizations should continue implementing AI-driven HR practices to enhance employee satisfaction.
- Proper training programs should be provided to employees for better understanding of AI-based systems.
- AI systems should be designed to complement human interaction rather than replace it.
- Organizations must ensure transparency in AI algorithms to build employee trust.
- Regular feedback should be collected to evaluate employee perception of AI-based HR practices.
- Data privacy and security measures should be strengthened to reduce employee concerns.
- AI-based performance appraisal systems should maintain fairness and objectivity.
- HR departments should combine AI tools with personalized human support.
- Organizations may expand AI applications in career development and engagement analytics.
- Future research can include larger samples and additional variables to strengthen statistical significance.

CONCLUSION

The study concludes that AI-driven HR practices play a significant role in enhancing employee satisfaction in modern organizations. The findings indicate that employees have a positive perception toward AI-based HR systems, particularly in areas such as recruitment, performance appraisal, and training. Although statistical tests show a moderate relationship, the overall trend suggests that AI adoption improves transparency, efficiency, and employee experience. AI technologies enable data-driven decision-making, reduce administrative workload, and provide personalized support, thereby contributing to higher satisfaction levels.

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