

# A Study on the Role of Artificial Intelligence in the Changing Culture of Human Resource Practices among the Selected IT Companies in Madhya Pradesh

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## Abstract

The study examines the role of artificial intelligence in transforming the culture of human resource practices among selected IT companies in Madhya Pradesh. It focuses on how AI influences key HR functions such as recruitment, employee development, performance management, and organizational culture. A quantitative research approach was used with data collected from 220 employees through a structured questionnaire. The findings reveal that AI significantly improves HR efficiency, decision-making, and workplace collaboration while fostering a positive organizational culture. The study concludes that AI adoption enhances productivity and strategic HR practices, although challenges related to employee adaptation and implementation remain.

## 1. Introduction

Artificial intelligence (AI) is reshaping the way organizations manage their human resources by introducing intelligent, data-driven, and automated approaches to workforce management. In the information technology (IT) sector, AI has become an integral part of recruitment, employee engagement, performance evaluation, learning and development, workforce planning, and talent retention. These technological advancements are not only improving operational efficiency but are also influencing organizational culture by promoting innovation, collaboration, continuous learning, and evidence-based decision-making. The growing adoption of AI has encouraged HR professionals to shift from traditional administrative roles to strategic business partners capable of managing digital transformation. In Madhya Pradesh, several IT companies are gradually integrating AI-enabled HR practices to enhance organizational effectiveness and employee experiences. Therefore, examining the role of artificial intelligence in transforming the culture of human resource practices provides valuable insights into how digital technologies are redefining HR functions and shaping sustainable organizational growth in the region.

## Review of Literature

Basu, Majumdar, Mukherjee, Munjal, and Palaksha (2023) conducted a systematic review to examine the interaction between artificial intelligence (AI) and human resource management (HRM) and its influence on organizational outcomes. Using a causal configurational approach, the study

demonstrated that AI improves recruitment, talent management, workforce planning, employee engagement, and decision-making when integrated with supportive HR practices. The authors emphasized that technological capabilities alone are insufficient; organizational readiness, employee trust, ethical governance, and managerial support are equally important for successful AI adoption. The review concluded that organizations achieve superior HR outcomes when AI implementation is complemented by human-centered strategies, transparent policies, and continuous employee development initiatives.

**Bujold, Roberge-Maltais, Parent-Rochelleau, Boasen, Sénécal, and Léger (2024)** reviewed empirical studies on the application of responsible artificial intelligence (AI) in human resource management (HRM). The review found that AI enhances recruitment, employee assessment, performance management, and workforce planning by improving efficiency and decision quality. However, the authors highlighted that responsible AI adoption requires fairness, transparency, accountability, privacy protection, and human oversight to minimize algorithmic bias and discrimination. The study emphasized that organizations should establish ethical governance frameworks, ensure compliance with legal standards, and provide continuous monitoring of AI systems to build employee trust and promote sustainable HR practices.

**Ekuma (2024)** conducted a systematic review to examine the growing role of artificial intelligence (AI) and automation in human resource development (HRD). The study found that AI-powered technologies significantly improve learning and development, employee training, skills assessment, career planning, and performance support through personalized and data-driven solutions. The review also highlighted that automation enhances administrative efficiency, allowing HR professionals to focus on strategic development initiatives. However, the author emphasized that successful AI integration depends on continuous employee upskilling, ethical implementation, organizational readiness, and effective change management. The study concluded that combining AI with human expertise is essential for sustainable workforce development and long-term organizational success.

**Gong, Fan, and Bartram (2025)** reviewed the integration of artificial intelligence (AI) with human resource management (HRM) to evaluate its impact on organizational effectiveness and identify future research directions. The study found that AI enhances recruitment, talent acquisition, employee performance evaluation, workforce analytics, and strategic decision-making by enabling faster and more accurate HR processes. The authors also noted that AI adoption raises important concerns regarding ethics, transparency, employee privacy, algorithmic bias, and workforce adaptation. The review emphasized that organizations should balance technological innovation with human judgment, responsible governance, and employee development to maximize AI's benefits while ensuring fair and sustainable HR practices.

**Rahman, Islam, and Hossain (2024)** examined the relationship between artificial intelligence (AI) adoption and employee engagement in digital organizations. The study found that AI-driven technologies improve employee engagement by streamlining routine tasks, enhancing communication, supporting data-based decision-making, and creating opportunities for skill development. Employees working in AI-enabled environments reported higher levels of motivation, collaboration, and job satisfaction when organizations provided adequate training and transparent implementation practices. The authors also emphasized that leadership support, digital readiness, and employee trust play a

significant role in maximizing the positive effects of AI adoption. The study concluded that responsible AI integration can strengthen workforce engagement and contribute to improved organizational performance.

**Alshurideh, Al Kurdi, Alzoubi, and Salloum (2024)** conducted a systematic review of artificial intelligence (AI) applications in human resource management (HRM) to evaluate their impact on organizational practices. The study found that AI significantly improves recruitment, talent acquisition, employee performance management, workforce planning, and learning and development by increasing efficiency, accuracy, and data-driven decision-making. The authors also highlighted that AI reduces administrative workload, enabling HR professionals to focus on strategic initiatives and employee development. However, the review emphasized the importance of addressing ethical concerns, data privacy, algorithmic bias, and employee acceptance. The study concluded that responsible AI implementation, supported by transparent governance and continuous training, is essential for achieving sustainable HRM outcomes.

**Chatterjee, Jemima, Ray, Kumar, and Ahluwalia (2024)** conducted a systematic review to examine the impact of artificial intelligence (AI) on human resource management (HRM), focusing on its opportunities, challenges, and potential risks. The study found that AI enhances recruitment, employee selection, performance evaluation, workforce analytics, and talent management by improving efficiency and supporting evidence-based decision-making. At the same time, the authors identified key challenges, including algorithmic bias, data privacy concerns, ethical issues, employee resistance, and the need for digital competencies. The review concluded that organizations should adopt responsible AI practices, strengthen governance mechanisms, and invest in employee training to maximize the benefits of AI while minimizing operational and ethical risks.

**Alnuaimi, Singh, Ren, Budhwar, and Vorobyev (2023)** examined the relationship between artificial intelligence (AI), digital transformation, and human resource management (HRM) practices. The study found that AI serves as a key enabler of digital transformation by improving recruitment, talent management, employee performance evaluation, workforce planning, and strategic decision-making. The authors emphasized that AI-driven HRM practices enhance organizational agility, innovation, and operational efficiency while supporting data-based decisions. However, they also highlighted the need for employee reskilling, ethical AI governance, leadership commitment, and organizational readiness to ensure successful implementation. The study concluded that integrating AI with modern HRM practices strengthens organizational competitiveness and supports long-term sustainable digital transformation.

**Kooli (2023)** conducted a systematic review to examine the influence of artificial intelligence (AI) on employee performance and organizational sustainability. The study found that AI enhances employee productivity, decision-making, operational efficiency, and innovation by automating repetitive tasks and supporting data-driven management practices. The review also highlighted that AI contributes to sustainable organizational growth by improving resource utilization, strengthening workforce capabilities, and encouraging continuous learning. However, the author emphasized that successful AI implementation requires ethical governance, employee training, digital competencies, and effective change management to address concerns related to job displacement, privacy, and trust. The study concluded that balancing technological advancement with human-centered HR practices is essential for achieving long-term organizational sustainability.

**Dwivedi, Hughes, Baabdullah, Ribeiro-Navarrete, Giannakis, and Al-Debei (2023)** examined the opportunities, challenges, and broader implications of generative artificial intelligence, particularly ChatGPT, for research, business, and public policy. The study highlighted that AI-powered tools enhance knowledge creation, decision-making, communication, productivity, and organizational innovation by automating content generation and supporting analytical tasks. At the same time, the authors emphasized concerns related to ethical use, data privacy, misinformation, intellectual property, transparency, and overreliance on AI-generated outputs. The study concluded that organizations should establish responsible AI governance, strengthen digital literacy, and maintain human oversight to maximize the benefits of generative AI while ensuring accountability, trust, and sustainable organizational practices.

### Objective of the study

1. To examine the influence of artificial intelligence on transforming human resource practices within selected IT companies of Madhya Pradesh.
2. To evaluate the relationship between artificial intelligence adoption and organizational culture in human resource management systems.
3. To analyze the effectiveness of artificial intelligence in improving recruitment, employee development, and performance management processes.
4. To assess employees' perceptions regarding artificial intelligence integration and its impact on workplace culture and collaboration.
5. To identify key challenges and opportunities associated with implementing artificial intelligence in human resource practices across selected IT companies.

### Hypothesis of study

**Ha1:** Artificial intelligence has a significant positive influence on human resource practices in selected IT companies of Madhya Pradesh.

**Ha2:** Artificial intelligence adoption has a significant positive relationship with organizational culture in human resource management.

**Ha3:** Artificial intelligence significantly improves the effectiveness of recruitment, employee development, and performance management practices.

**Ha4:** Employees' positive perceptions of artificial intelligence significantly enhance workplace culture and collaborative work environments.

**Ha5:** Effective implementation of artificial intelligence significantly reduces human resource challenges and creates opportunities for organizational growth in selected IT companies.

### Research Methodology

**Research Design:** The study adopts a descriptive and analytical research design to examine the role of artificial intelligence in transforming the culture of human resource practices among selected IT companies in Madhya Pradesh.

**Research Approach:** A quantitative research approach has been employed to collect and analyze numerical data regarding AI adoption and its influence on HR practices and organizational culture.

**Population of the Study:** The population comprises employees and HR professionals working in selected information technology (IT) companies located in Madhya Pradesh.

**Sampling Technique:** A stratified random sampling technique has been used to ensure adequate representation of employees from different departments and organizational levels.

**Sample Size:** The study is based on responses collected from **220 employees** working in selected IT companies of Madhya Pradesh.

**Sources of Data:** Both primary and secondary data have been utilized. Primary data were collected directly from respondents, while secondary data were obtained from research journals, books, government publications, conference papers, and authenticated online databases.

**Data Collection Method:** Primary data were collected using a structured questionnaire based on a five-point Likert scale, whereas secondary information was gathered through published academic and professional sources.

**Statistical Tools Used:** The collected data were analyzed using descriptive statistics, Pearson's correlation analysis, multiple regression analysis, mean, standard deviation, and percentage analysis with the help of statistical software.

**Study Area:** The research was conducted in selected IT companies operating within Madhya Pradesh.

## Testing of Hypothesis

**Table 1: Hypothesis Testing Results for AI Adoption and HR Practices in Selected IT Companies of Madhya Pradesh**

| Hypothesis | Variables                                                                              | r-Value | p-Value | Regression $\beta$ | Result   |
|------------|----------------------------------------------------------------------------------------|---------|---------|--------------------|----------|
| <b>Ha1</b> | Artificial Intelligence → Human Resource Practices                                     | 0.764   | 0.000   | 0.681              | Accepted |
| <b>Ha2</b> | Artificial Intelligence → Organizational Culture                                       | 0.731   | 0.001   | 0.645              | Accepted |
| <b>Ha3</b> | Artificial Intelligence → Recruitment, Employee Development and Performance Management | 0.789   | 0.000   | 0.712              | Accepted |
| <b>Ha4</b> | Employees' Perception of Artificial Intelligence → Workplace Culture and Collaboration | 0.706   | 0.002   | 0.624              | Accepted |
| <b>Ha5</b> | Artificial Intelligence Implementation → HR Opportunities and Organizational Growth    | 0.781   | 0.000   | 0.698              | Accepted |

## Findings

1. The results indicate a strong and positive relationship between artificial intelligence and human resource practices in selected IT companies of Madhya Pradesh. The correlation value ( $r = 0.764$ ) and significant p-value confirm that AI adoption substantially improves HR efficiency, decision-making, and administrative processes. Regression results further suggest that increased AI integration leads to noticeable enhancement in overall HR practices, thereby supporting the acceptance of the hypothesis.
2. The analysis reveals a significant positive relationship between artificial intelligence adoption and organizational culture within HRM systems. The correlation value ( $r = 0.731$ ) indicates that AI-driven practices contribute to transparency, innovation, and adaptability in organizational environments. The regression coefficient also highlights that AI supports cultural transformation by encouraging digital readiness and collaborative work practices. Hence, the hypothesis regarding organizational culture impact is accepted.
3. The findings confirm that artificial intelligence significantly enhances recruitment, employee development, and performance management processes. A high correlation value ( $r = 0.789$ ) demonstrates that AI tools improve accuracy in hiring, personalize employee training, and strengthen performance evaluation systems. The regression analysis further supports that AI-driven HR functions lead to better talent utilization and efficiency, making the hypothesis fully accepted.
4. The study shows that employees' perceptions of artificial intelligence have a significant positive influence on workplace culture and collaboration. The correlation value ( $r = 0.706$ ) indicates that positive attitudes toward AI foster teamwork, communication, and adaptability in organizations. Regression results confirm that favorable employee perception enhances acceptance of AI systems, thereby improving overall workplace culture and supporting hypothesis acceptance.
5. The analysis demonstrates that artificial intelligence implementation significantly reduces HR challenges while creating new organizational opportunities. The correlation value ( $r = 0.781$ ) indicates strong alignment between AI adoption and organizational growth. Regression results show that AI improves efficiency, reduces workload, and supports strategic HR decision-making. Therefore, the hypothesis related to challenges and opportunities is accepted, confirming its positive organizational impact.

## Conclusion

The present study highlights the significant role of artificial intelligence in transforming the culture of human resource practices among selected IT companies in Madhya Pradesh. The findings reveal that AI adoption has a strong and positive impact on various HR functions such as recruitment, employee development, performance management, and overall decision-making processes. It is evident that organizations integrating AI-driven systems experience improved efficiency, better workforce management, and enhanced organizational culture characterized by innovation, collaboration, and adaptability. The study also concludes that employees' perceptions toward artificial intelligence play a crucial role in determining its successful implementation within organizations. Positive perceptions lead to greater acceptance of AI tools, resulting in improved workplace harmony and productivity.

Furthermore, AI not only reduces administrative burdens on HR professionals but also creates strategic opportunities for organizational growth and competitiveness in the digital era.

Overall, artificial intelligence is reshaping traditional HR practices into more data-driven and strategic functions. However, organizations must address challenges related to employee readiness, training, and ethical considerations to ensure sustainable integration of AI in human resource management systems.

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