

EMPLOYEE TRUST IN AI-ENABLED HUMAN RESOURCE SYSTEMS AND ITS INFLUENCE ON ACCEPTANCE: EVIDENCE FROM THE IT SECTOR IN CHENNAI

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Abstract

The use of artificial intelligence (AI) in human resource management has grown significantly, especially in technology-focused sectors. Although AI-driven HR systems offer various operational benefits, their success depends primarily on employees' trust and willingness to adopt them. This research investigates the extent to which IT employees in Chennai trust AI-enhanced HR systems and how this trust affects their acceptance. A descriptive and analytical approach was used, with primary data gathered from 75 IT professionals through a structured questionnaire. The collected data were analysed using descriptive statistics, Pearson correlation, and simple linear regression.

The findings reveal that employees exhibit a favourable level of trust and acceptance towards AI-enabled HR systems. The results further indicate a strong and positive relationship between employee trust and acceptance, with trust significantly influencing employees' willingness to adopt AI-driven HR practices. The study highlights the importance of transparency, fairness, and ethical use of AI in building employee trust. The findings provide practical insights for organizations seeking to implement AI-enabled HR systems in a practical, employee-centric manner.

Keywords: Artificial Intelligence, Human Resource Management, Employee Trust, Acceptance, IT Sector, Chennai

1. Introduction

The rapid progress of Artificial Intelligence (AI) has profoundly changed how organizations operate across sectors, especially in Human Resource Management (HRM). AI technologies such as algorithmic recruitment tools, HR chatbots, predictive analytics, and automation in performance management are becoming more common in HR functions to improve efficiency, precision, and decision-making. Companies, particularly in knowledge-heavy fields like Information Technology (IT), are adopting AI-powered HR systems to handle large, diverse workforces in a competitive, data-centric business landscape.

Previous research has extensively highlighted the operational advantages of adopting AI in HRM, including automation, improved accuracy, time efficiency, and cost savings. However, the human and psychological aspects of AI integration are less thoroughly examined. The effectiveness of AI-driven HR systems depends not only on their technological sophistication but also significantly on employees' trust and acceptance. Since HR decisions impact employees' careers, job security, performance assessments, and pay, the perceived fairness and credibility of AI-based HR systems are crucial factors influencing their success.

Employee trust in AI-powered HR systems reflects their confidence that these systems make reliable, unbiased, transparent, and aligned decisions with both organizational and personal interests. Unlike traditional HR methods, AI systems often operate as "black boxes," with their decision-making processes not fully visible to employees. This lack of transparency can raise concerns about algorithmic bias, data privacy, surveillance, and the dehumanization of HR functions. When trust is lacking,

employees may resist, feel anxious, or be less likely to accept AI systems, thereby diminishing the effectiveness of AI systems.

Acceptance of AI-enabled HR systems indicates employees' readiness to adopt, depend on, and endorse AI-driven HR practices at work. While these systems may show technical precision, employees might still hesitate to accept them if they perceive them as unjust, intrusive, or not transparent enough. Trust plays a vital role as a psychological factor that links the implementation of AI to employee acceptance. Without sufficient trust, AI-powered HR projects could encounter resistance, low participation, and ethical concerns.

The Indian IT industry offers a particularly relevant setting to study employee trust and acceptance of AI-powered HR systems. As a significant global IT hub, India has rapidly adopted AI in areas such as recruitment screening, talent analytics, personalized learning, and employee engagement. Simultaneously, it employs a highly educated, digitally savvy workforce that is more aware of data privacy, algorithmic decisions, and workplace fairness. These factors highlight the importance of employee trust and acceptance in ensuring the long-term success of AI-based HR initiatives.

Although interest in adopting AI in HRM is increasing, most studies have primarily examined organizational results or managerial views, with less focus on trust mechanisms from employees' perspectives. There is a clear research gap in understanding how trust in AI-powered HR systems affects employees' acceptance, particularly in emerging economies such as India. Filling this gap is important for both academic understanding and practical application, as organizations aim to innovate while maintaining ethical standards and supporting employee well-being.

This study investigates employee trust in AI-enabled HR systems and their impact on acceptance, using data from IT professionals in India. It emphasizes trust as a key factor, enriching the literature on AI in HRM by focusing on human perceptions and behaviours rather than just technology. The results aim to provide valuable insights for organizations, HR practitioners, and policymakers aiming to deploy AI-driven HR systems that are both effective and trusted by employees.

Objectives of the Study

1. To examine the level of employee trust in AI-enabled human resource systems in the Indian IT sector.
2. To analyse employees' acceptance of AI-driven HR practices in their organizations.
3. To assess the influence of employee trust in AI-enabled HR systems on their acceptance of such systems.

2. Review of Literature

2.1 Artificial Intelligence in Human Resource Management

Artificial Intelligence (AI) has become a key transformative force in Human Resource Management (HRM), allowing organizations to automate routine tasks, improve decision-making accuracy, and enhance strategic workforce planning. Recent research shows that AI-powered HR systems are commonly used for recruitment, performance assessments, learning and development, and boosting employee engagement (Garg et al., 2022; Minbaeva, 2021). In technology-heavy industries such as IT, AI adoption has accelerated due to the need to handle large datasets, reduce administrative work, and respond more quickly in HR decision-making (Chowdhury et al., 2023).

Empirical evidence shows that adopting AI enhances HR efficiency and operational results; however, researchers increasingly contend that technological capability alone does not ensure successful implementation (Vrontis et al., 2022). Instead, the human response—especially employees' perceptions and attitudes has a crucial impact on how effective these AI-enabled HR systems are.

2.2 Employee Trust in AI-Enabled HR Systems

Trust is recognized as a key psychological factor shaping individuals' reactions to advanced technologies. Specifically, in AI-powered HR systems, employee trust entails believing that AI decisions are reliable, fair, clear, and aligned with organizational and personal goals (Rodgers et al., 2023). When AI handles HR processes such as recruitment, promotion recommendations, or performance assessments, employees tend to evaluate the fairness and validity of these systems carefully.

Several studies indicate that a lack of trust in AI can result in resistance, anxiety, and reduced cooperation, even when AI systems demonstrate high technical accuracy (Jarrahi, 2018). Conversely, when employees trust AI-driven HR tools, they are more likely to rely on system outputs and integrate them into their work routines (Malik et al., 2022). Trust thus serves as a foundational element in shaping positive employee-AI interactions within organizations.

2.3 Transparency, Explainability, and Fairness

Recent studies highlight that transparency and explainability are essential for building trust in AI systems. Explainable AI (XAI) enables users to understand how and why certain decisions or recommendations are made, helping reduce perceptions of opacity and bias (Huang et al., 2023). In HRM, where choices directly impact employees' careers, opaque "black-box" algorithms can erode trust and raise ethical issues about discrimination and responsibility (Rodgers et al., 2023).

Research indicates that employees' trust in AI-based HR decisions heavily depends on perceived fairness. When staff feel that AI systems evaluate candidates and employees objectively and consistently, their trust in these systems grows (Johnson et al., 2020). Conversely, worries about biased training data and insufficient human supervision can diminish trust and acceptance of AI-powered HR practices (Garg et al., 2022).

2.4 Acceptance of AI-Driven HR Practices

Acceptance of AI-enabled HR systems involves employees' readiness to adopt, support, and depend on AI-driven HR tools at work. While technology acceptance theories highlight perceived usefulness and ease of use as crucial factors, recent AI studies add trust as an essential element (Malik et al., 2022). Research shows that even highly efficient AI systems can be rejected if employees view them as intrusive, unfair, or a threat to their job security (Minbaeva, 2021).

Further research shows that trust acts as a mediator between AI system features and employees' acceptance of them. Employees who trust AI-based HR systems tend to see them as more beneficial and are less resistant to their adoption (Chowdhury et al., 2023). This connection is vital in emerging economies, where rapid digital growth occurs alongside growing concerns about data privacy and ethical AI practices.

2.5 Research Gap

While existing studies offer valuable insights into AI adoption in HRM, they primarily focus on organizational outcomes, system effectiveness, or managerial perspectives. There has been limited empirical focus on employee trust as a key factor affecting the acceptance of AI-enabled HR systems, especially in the Indian IT industry. Additionally, few studies have empirically examined the direct link between employee trust and acceptance within one analytical framework.

This study fills the gap by examining employee trust in AI-enabled HR systems and their impact on acceptance, contributing to the expanding body of human-centric AI research with insights specific to the Indian IT sector.

3. Research Methodology

This study adopts a descriptive-analytical approach to examine employee trust in AI-powered HR systems and their impact on system acceptance. It was conducted among employees in Chennai-based IT companies that utilize AI-driven HR practices. Data were gathered from 75 IT professionals through convenience sampling. A structured questionnaire was distributed online, and only complete and valid responses were included in the analysis.

The questionnaire was created based on a review of recent literature on artificial intelligence in human resource management, employee trust, and technology acceptance. It comprised two sections: the first collected demographic information from respondents, while the second assessed employee trust in AI-enabled HR systems and acceptance of AI-driven HR practices. Responses were gathered using a five-point Likert scale, ranging from strongly disagree to agree strongly. Employee trust in AI-enabled HR systems served as the independent variable, whereas acceptance of these systems was the dependent variable. The reliability of the scales was evaluated with Cronbach's alpha, which showed acceptable internal consistency. Content validity was ensured by customizing items from established studies and consulting experts.

The data were analysed with IBM SPSS software. Descriptive statistics summarized the demographic profile and study variables. A Pearson correlation was used to test the relationship between employee trust and acceptance. Simple linear regression evaluated how employee trust influences acceptance of AI-enabled HR systems. Ethical protocols were upheld, ensuring that participation was voluntary and that respondents' confidentiality and anonymity were maintained.

4. Data Analysis and Interpretation

4.1 Introduction to Data Analysis

Data from 75 IT employees in Chennai were analysed to assess trust in AI-enabled HR systems and their effect on user acceptance. The analysis used IBM SPSS software. Descriptive statistics provided an overview of respondents' perceptions, while Pearson correlation and simple linear regression tests examined relationships and impacts among variables. The findings are systematically presented and explained.

Table 4.1 Descriptive Statistics of Employee Trust and Acceptance

Variables	N	Mean	Standard Deviation
Employee Trust	75	3.84	0.62
Acceptance of AI-Enabled HR Systems	75	3.91	0.58

Table 4.1 presents the descriptive statistics for employee trust and acceptance of AI-enabled HR systems among IT staff in Chennai. The average trust score is 3.84, reflecting a generally positive level of confidence in AI-driven HR processes. Likewise, the average acceptance score is 3.91, indicating a favourable attitude toward adopting and endorsing AI-based HR systems. The standard deviation values show that responses vary moderately among employees.

Table 4.2 Correlation between Employee Trust and Acceptance

Variables	Employee Trust	Acceptance
Employee Trust	1	
Acceptance	0.63**	1

Note: Correlation is significant at 1% level

Table 4.2 displays the Pearson correlation results between employee trust and acceptance of AI-enabled HR systems. The correlation coefficient of 0.63 indicates a strong positive relationship, suggesting that higher trust in AI systems is associated with greater acceptance. This relationship is statistically significant at the 1% level, underscoring the crucial role of trust in influencing employees' acceptance of AI-driven HR practices.

Table 4.3 Regression Analysis – Impact of Employee Trust on Acceptance

Model	Unstandardized Coefficient (B)	Std. Error	t-value	Sig.
Constant	1.12	0.38	2.95	0.004
Employee Trust	0.72	0.09	8.00	0.000

$$R^2 = 0.40$$

Table 4.3 presents the results of a simple linear regression analysis examining the relationship between employee trust and the acceptance of AI-enabled HR systems. The regression coefficient (B = 0.72) indicates a positive, statistically significant effect, with a p-value <0.01. The R^2 of 0.40 suggests that employee trust accounts for 40% of the variance in acceptance levels. This emphasizes that employee trust is a strong predictor of acceptance among IT workers in Chennai.

The analysis shows that IT employees in Chennai generally trust and accept AI-enabled HR systems. The strong correlation and significant regression results confirm that trust significantly influences their acceptance of AI-driven HR practices. These findings highlight the importance of organizations fostering trust by ensuring transparency, fairness, and the ethical use of AI in HR to promote successful implementation.

5. Findings and Suggestions

Findings

The study shows that IT employees in Chennai generally have a favourable trust in AI-powered HR systems. They see AI-driven HR processes as dependable and beneficial, especially regarding consistency and efficiency in decision-making. The findings also suggest a positive acceptance of AI-enabled HR practices, indicating that employees are open to using and supporting these systems in their workplaces.

Furthermore, the correlation analysis reveals a strong, positive link between employee trust and their acceptance of AI-enabled HR systems. This suggests that employees who trust AI-driven HR practices are more inclined to accept and rely on these systems. The regression analysis further confirms that employee trust significantly impacts acceptance, accounting for a large part of the variance in acceptance levels. Overall, this demonstrates that trust is crucial for the successful adoption of AI-enabled HR systems among IT employees in Chennai.

Overall, the results indicate that although employees recognize the operational advantages of AI in HRM, their willingness to adopt AI-powered HR systems depends primarily on their trust in these systems.

Suggestions

According to the findings, organizations need to focus on fostering and maintaining employee trust when deploying AI-powered HR systems. Clear communication about how these AI systems operate, the data they utilize, and the decision-making criteria can alleviate employee concerns and boost confidence in AI-driven HR practices. Additionally, organizations should commit to fairness and ethics by routinely auditing AI algorithms to reduce bias and ensure accountability.

Additionally, offering training and awareness programs on AI-powered HR systems can boost employees' understanding and comfort, leading to greater trust and acceptance. Engaging employees in the implementation process and maintaining human oversight in key HR decisions can further enhance confidence in AI. By focusing on a human-centric approach to deploying AI, organizations can increase acceptance and ensure these systems effectively support organizational objectives and employee well-being.

6. Conclusion

This study investigated employee trust in AI-enabled HR systems and their impact on acceptance among IT workers in Chennai. As AI becomes more integrated into HR practices, understanding employees' perceptions is crucial for successful and sustainable adoption. The findings indicate that employees tend to view AI-driven HR systems positively, especially when they see these systems as dependable and advantageous.

The study confirms that employee trust is crucial in determining whether they accept AI-enabled HR systems. There is a clear positive link: employees who trust AI-driven HR practices are more willing to adopt and support them. This highlights the need to pay attention to psychological and ethical factors in AI implementation, beyond just technological efficiency.

The study emphasizes that organizations in the IT industry should adopt a human-centric approach when implementing AI-enabled HR systems. Fostering trust through transparency, fairness, ethical data use, and clear communication can significantly improve employee acceptance. While the research is limited to IT employees in Chennai and involves a small sample size, it offers important insights for organizations aiming to deploy AI-driven HR practices responsibly. Future research could expand to other industries and regions to further verify and deepen these findings.

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