Article

AI Adoption in HRM and Employee Acceptance: A Behavioral Perspective

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Abstract: The rapid integration of artificial intelligence (AI) into Human Resource Management (HRM) has transformed traditional people management practices, yet employee acceptance remains a critical determinant of successful implementation. This study examines AI adoption in HRM and employee acceptance from a behavioral perspective by integrating the Technology Acceptance Model (TAM) with key behavioral and ethical constructs. Using a descriptive and analytical research design, primary data were collected from 300 employees working in IT, service, and knowledge-based organizations through a structured questionnaire. The study employed descriptive statistics, correlation analysis, regression analysis, and Structural Equation Modeling (SEM) using SPSS. The findings reveal that perceived usefulness (β = 0.32), perceived ease of use (β = 0.26), trust in AI (β = 0.29), and perceived fairness (β = 0.21) significantly influence employee acceptance of AI-enabled HRM systems, collectively explaining 64% of the variance. SEM results confirm that attitude toward AI plays a significant mediating role between AI perception variables and behavioral intention to use AI, with strong model fit indices (CFI = 0.94, RMSEA = 0.05). The study underscores that successful AI adoption in HRM depends not only on technological efficiency but also on trust, fairness, and positive employee attitudes, offering important implications for human-centric and ethical AI implementation.

Keywords: - Artificial Intelligence; Human Resource Management; Employee Acceptance; Behavioral Perspective

INTRODUCTION

The rapid advancement of artificial intelligence (AI) has fundamentally reshaped organizational structures, decision-making processes, and workforce management practices across industries. Within the domain of Human Resource Management (HRM), AI technologies are increasingly deployed to enhance efficiency, accuracy, and strategic alignment in functions such as recruitment and selection, performance appraisal, training and development, workforce analytics, and employee engagement. AI-driven tools—ranging from algorithmic resume screening and chatbots to predictive analytics and machine learning-based talent management systems—promise substantial gains in operational efficiency and cost reduction while enabling data-driven HR decision-making (Bersin, 2018; Jarrahi, 2018). However, despite their growing adoption, the successful integration of AI into HRM systems remains contingent not merely on technological capability but critically on employee acceptance and behavioral responses to these technologies.

From a behavioral perspective, AI adoption in HRM introduces complex psychological, social, and ethical considerations that influence employees'

perceptions, attitudes, and intentions toward technology use. Unlike traditional information systems, AI applications in HRM often operate with limited transparency, autonomous decision-making capabilities, and perceived substitutability of human judgment, thereby eliciting concerns related to job security, fairness, trust, and loss of human agency (Raisch & Krakowski, 2021; Kellogg, Valentine, & Christin, 2020). Behavioral theories such as the Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and Social Exchange Theory suggest that employees' acceptance of AI is shaped by perceived usefulness, ease of use, trust, organizational support, and perceived justice (Venkatesh et al., 2012; Blau, 1964). Consequently, understanding employee acceptance from a behavioral lens has become a critical research imperative for organizations seeking to leverage AI in HRM effectively.

Over the past decade, empirical studies have increasingly examined the determinants of technology acceptance in organizational settings, yet the application of these frameworks to AI-enabled HRM remains relatively underexplored. Early studies between 2010 and 2015 largely focused on automation and e-HRM systems, emphasizing efficiency and system usability (Bondarouk & Ruël, 2013). As AI technologies evolved post-2015, scholarly attention shifted toward algorithmic decision-making, workforce analytics, and intelligent HR systems, highlighting both opportunities and behavioral challenges (Davenport, Guha, Grewal, & Bressgott, 2020). Recent research (2020–2025) underscores that employee acceptance of AI in HRM is significantly influenced by perceptions of algorithmic fairness, explainability, ethical governance, and the degree of human oversight embedded within AI systems (Floridi et al., 2018; Meijerink, Boons, Keegan, & Marler, 2021). These findings indicate that behavioral responses to AI are not static but evolve alongside technological sophistication and organizational context.

Furthermore, AI adoption in HRM has profound implications for the employee–organization relationship, reshaping power dynamics, trust mechanisms, and psychological contracts. While AI-enabled HR practices can enhance objectivity and reduce human bias, employees may perceive algorithmic control as depersonalizing or intrusive, leading to resistance, stress, or disengagement (Möhlmann & Zalmanson, 2017; van den Broek, Sergeeva, & Huysman, 2018). Behavioral research suggests that employees are more likely to accept AI when it is framed as an augmentative tool supporting human decision-making rather than a replacement for human judgment (Raisch & Krakowski, 2021). Additionally, organizational transparency, ethical AI policies, and participative change management practices play a pivotal role in shaping positive behavioral outcomes and fostering trust in AI-enabled HRM systems (Jesuthasan & Boudreau, 2018; SHRM, 2024).

Against this backdrop, the present study adopts a behavioral perspective to examine AI adoption in HRM and employee acceptance, integrating insights from technology acceptance theories, organizational behavior, and HRM literature. By synthesizing research from 2010 to 2025, this study seeks to address critical gaps related to how employees cognitively and emotionally respond to AI-driven HR practices and how these responses influence acceptance, resistance, and sustained usage. Understanding these behavioral dimensions is essential for organizations aiming to implement AI responsibly while maintaining employee trust, engagement, and well-being. As AI continues to redefine the future of work, a nuanced behavioral understanding of employee acceptance will be indispensable for aligning technological innovation with human-centric HRM practices and sustainable organizational performance.

LITERATURE REVIEW:

Early research on technology adoption in HRM primarily focused on electronic HRM (e-HRM) systems, emphasizing efficiency, automation, and strategic alignment of HR functions. Studies grounded in the Technology Acceptance Model (TAM) highlighted perceived usefulness and perceived ease of use as key determinants influencing employee adoption of digital HR systems (Davis, 1989; Venkatesh & Davis, 2000). Between 2010 and 2015, scholars extended these models to organizational contexts, noting that employee attitudes and perceived organizational support significantly shaped acceptance of HR technologies (Bondarouk & Ruël, 2013; Strohmeier, 2013). These studies laid the foundation for understanding how technology alters HR processes but offered limited insights into AI-specific behavioral implications.

With the advancement of artificial intelligence post-2015, HRM research increasingly examined AI-driven applications such as algorithmic recruitment, predictive analytics, and automated performance management. Davenport and Ronanki (2018) and Jarrahi (2018) emphasized AI's potential to augment human decision-making rather than replace it. However, recent studies reveal that employee trust, transparency, and perceived fairness critically influence acceptance of AI systems in HRM (Kellogg et al., 2020; Meijerink et al., 2021). Concerns related to algorithmic bias, data privacy, and job displacement have been shown to negatively affect employee attitudes, highlighting the need to integrate ethical and behavioral dimensions into AI adoption frameworks (Raisch & Krakowski, 2021).

Recent literature from 2020 to 2025 adopts a more human-centric and behavioral lens, integrating TAM

with organizational behavior constructs such as trust, justice, and attitude formation. Floridi et al. (2018) and SHRM (2024) emphasize responsible and explainable AI as essential for employee acceptance and engagement. Empirical studies demonstrate that attitude toward AI mediates the relationship between AI perceptions and behavioral intention to use, reinforcing the role of psychological mechanisms in technology adoption (Venkatesh et al., 2012; Chatterjee et al., 2023). Despite these advances, integrated empirical models examining AI adoption in HRM through a behavioral acceptance framework remain limited, justifying the present study.

Research Gap

Despite rapid AI integration in HRM, existing studies predominantly emphasize technological efficiency and organizational outcomes, with limited empirical focus on employee behavioral acceptance. Prior research often applies TAM or UTAUT in isolation, neglecting behavioral mediators such as trust, perceived fairness, and anxiety. Moreover, there is a lack of integrated behavioral models combining technology acceptance with organizational behavior constructs in emerging economies. Longitudinal and perception-based empirical analyses remain scarce, particularly post-2020 when AI-driven HR decision-making intensified.

Objectives of the Study

1. To examine the level of AI adoption in HRM practices and employee perceptions toward AI-enabled HR systems.
2. To assess the influence of perceived usefulness, perceived ease of use, trust, and perceived fairness on employee acceptance of AI in HRM.
3. To analyze the behavioral impact of AI perception variables on employee acceptance and behavioral intention to use AI through attitude toward AI.

Hypotheses

H_1: Perceived usefulness, perceived ease of use, trust in AI, and perceived fairness have a significant positive influence on employee acceptance of AI-enabled HRM systems.

H_2: Attitude toward AI significantly mediates the relationship between AI perception variables and behavioral intention to use AI in HRM.

Methodology

The study adopted a descriptive and analytical research design to investigate employee acceptance of artificial intelligence in human resource management from a behavioral perspective. The target population comprised employees working in IT, service, and knowledge-based organizations where AI-enabled HR practices such as AI-driven recruitment, performance analytics, and HR chatbots are increasingly implemented. A sample of 300 respondents was selected using stratified random sampling to ensure representation across organizational levels and functional roles. Primary data were collected through a structured questionnaire administered online, using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The measurement instrument included validated scales for perceived usefulness, perceived ease of use, trust in AI, perceived fairness, attitude toward AI, employee acceptance, and behavioral intention to use AI. The collected data were analyzed using SPSS and AMOS. Descriptive statistics were employed to understand perception levels, while correlation analysis examined interrelationships among variables. Regression analysis was used to assess the influence of AI perception variables on employee acceptance. Structural Equation Modeling (SEM) was applied to test the mediating role of attitude toward AI and evaluate overall model fitness. Reliability analysis confirmed internal consistency, with Cronbach's alpha values exceeding 0.70 for all constructs, establishing the robustness and validity of the measurement model.

Data Analysis and Interpretation:

Table 1: Descriptive Statistics

Variable	Mean	Std. Deviation
Perceived Usefulness	3.89	0.68
Perceived Ease of Use	3.76	0.71
Trust in AI	3.62	0.74
Perceived Fairness	3.58	0.77
Employee Acceptance	3.81	0.69

The descriptive statistics reveal a moderately high level of AI adoption and positive employee perception toward AI-enabled HRM practices. All mean values exceed the midpoint of 3.00, indicating that employees generally perceive AI systems as useful, manageable, and acceptable within HR functions. Perceived usefulness recorded the

highest mean (3.89), suggesting that employees recognize AI's role in improving efficiency, accuracy, and decision-making in HR activities such as recruitment and performance management. Employee acceptance also demonstrated a strong mean value (3.81), reflecting a willingness to engage with AI-driven HR systems. Trust in AI and perceived fairness, while comparatively lower, still indicate favorable perceptions, highlighting cautious optimism rather than resistance. These findings confirm that AI adoption in HRM is no longer viewed as experimental but as an operational reality. However, the relatively higher standard deviations for trust and fairness suggest variations in employee experience, emphasizing the need for transparent and ethical AI implementation strategies.

Table 2: Reliability Analysis (Cronbach's Alpha)

Variable	Number of Items	Cronbach's Alpha
Perceived Usefulness	5	0.86
Perceived Ease of Use	4	0.83
Trust in AI	4	0.81
Perceived Fairness	4	0.79
Employee Acceptance	4	0.88
Attitude Toward AI	3	0.84
Behavioral Intention to Use AI	3	0.85

The reliability analysis demonstrates strong internal consistency across all study constructs, as evidenced by Cronbach's alpha values exceeding the recommended threshold of 0.70. Employee acceptance ($\alpha = 0.88$) and perceived usefulness ($\alpha = 0.86$) exhibit particularly high reliability, indicating consistent measurement of employee perceptions toward AI-enabled HRM systems. Trust in AI, perceived fairness, and perceived ease of use also show satisfactory reliability, confirming the robustness of behavioral and ethical constructs incorporated into the model. Overall, the results establish the reliability of the measurement instrument, validating its suitability for regression and Structural Equation Modeling analyses.

Table 3: Correlation Matrix among AI Perception Variables and Employee Acceptance

Variables	PU	PEOU	TR	PF	EA
PU	1				
PEOU	.62**	1			
TR	.54**	.49**	1		
PF	.51**	.47**	.58**	1	
EA	.68**	.61**	.63**	.59**	1

Note: Correlation is significant at the 0.01 level (2-tailed)

The correlation analysis indicates strong and statistically significant positive relationships among all key constructs related to AI adoption in HRM. Perceived usefulness exhibits the strongest correlation with employee acceptance ($r = 0.68$), suggesting that employees who perceive AI systems as beneficial for improving HR efficiency and decision quality are more inclined to accept their use. Perceived ease of use also shows a substantial positive association with employee acceptance ($r = 0.61$), highlighting that simplicity and user-friendliness reduce psychological resistance toward AI-enabled HR systems. Trust in AI demonstrates a strong positive correlation with employee acceptance ($r = 0.63$) and perceived fairness ($r = 0.58$), emphasizing that confidence in algorithmic accuracy and ethical decision-making plays a crucial behavioral role. Similarly, perceived fairness is positively correlated with employee acceptance ($r = 0.59$), reinforcing the importance of unbiased and transparent AI-driven HR practices. Importantly, the correlations among independent variables are moderate and below critical thresholds, indicating the absence of multicollinearity and validating their inclusion in subsequent regression and SEM analyses. Overall, the findings confirm that employee acceptance of AI in HRM is significantly influenced by cognitive evaluations and ethical perceptions. These results provide strong preliminary support for Hypothesis H1, which is further substantiated through regression analysis, and they empirically justify the proposed behavioral acceptance framework.

Table 4: Regression Analysis

Predictor	Beta	t-value	Sig.

Perceived Usefulness	0.32	5.84	0.000
Perceived Ease of Use	0.26	4.71	0.000
Trust in AI	0.29	5.12	0.000
Perceived Fairness	0.21	3.98	0.001
R^2	0.64		

The regression results indicate that perceived usefulness, perceived ease of use, trust in AI, and perceived fairness significantly influence employee acceptance of AI-enabled HRM systems. The model explains 64% of the variance in employee acceptance, demonstrating strong explanatory power. Among the predictors, perceived usefulness emerged as the strongest determinant ($\beta = 0.32$), confirming the core proposition of the Technology Acceptance Model. Trust in AI also showed a substantial influence ($\beta = 0.29$), underscoring the importance of confidence in algorithmic decision-making. Perceived ease of use and fairness further contributed significantly, indicating that usability and ethical considerations play vital behavioral roles. Since all predictors are statistically significant at the 1% level, Hypothesis H1 is accepted. These findings reinforce that employee acceptance of AI in HRM is not driven solely by technological efficiency but by a combination of cognitive and ethical perceptions. Organizations that prioritize transparent, fair, and user-friendly AI systems are more likely to achieve higher employee acceptance and successful AI integration.

Table 5: SEM Model Fit Indices

Index	Value	Threshold
CFI	0.94	>0.90
TLI	0.93	>0.90
RMSEA	0.05	<0.08

Table 6: SEM Path Coefficients

Path	Standardized Estimate	CR	p-value	result
PU → EA	0.34	6.12	0.000	Supported
PEOU → EA	0.27	4.89	0.000	Supported
TR → ATT	0.41	6.45	0.000	Supported
PF → EA	0.22	3.97	0.001	Supported
ATT → BI	0.46	7.08	0.000	Supported

The SEM results confirm an excellent model fit, validating the proposed behavioral acceptance framework integrating TAM and organizational behavior constructs. All structural paths are statistically significant at the 1% level, indicating strong theoretical and empirical support. Perceived usefulness ($\beta = 0.34$) and perceived ease of use ($\beta = 0.27$) exert significant direct effects on employee acceptance, reaffirming the core propositions of the Technology Acceptance Model. Trust in AI strongly influences attitude toward AI ($\beta = 0.41$), highlighting that employees' psychological confidence in algorithmic systems is a critical precursor to positive attitudinal formation. Attitude toward AI, in turn, has a substantial impact on behavioral intention to use AI ($\beta = 0.46$), confirming its mediating role. Perceived fairness also directly affects employee acceptance, emphasizing ethical considerations in AI-driven HR decisions. Since both the direct and indirect effects through attitude are significant, Hypothesis H2 is fully supported, establishing attitude toward AI as a key behavioral mediator. These findings underscore that

successful AI adoption in HRM requires not only technological efficiency but also trust-building, fairness, and positive attitudinal alignment among employees.

Conclusion

This study demonstrates that employee acceptance of AI-enabled HRM systems is strongly influenced by cognitive evaluations and behavioral perceptions, particularly perceived usefulness, ease of use, trust, and fairness. The findings validate the relevance of TAM when extended with behavioral and ethical constructs, highlighting the mediating role of attitude toward AI in shaping behavioral intention. From a practical standpoint, organizations must prioritize transparent, fair, and human-augmentative AI practices to foster trust and acceptance. Future research may adopt longitudinal designs to examine changes in employee attitudes over time, explore cross-cultural differences in AI acceptance, and incorporate additional psychological variables such as anxiety, job insecurity, and ethical climate to further enrich behavioral AI adoption models.

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