

AI Powered Transformation Of HR Practices: A Study On IT Companies In Uttar Pradesh

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Abstract

This research explores how artificial intelligence (AI) changes human resource management (HRM) processes in IT organizations in Uttar Pradesh, India. A mixed-method research design is used, combining the qualitative aspects of the literature and the experiences of experts with an empirical survey of 277 HRM professionals and employees. The research indicates a moderate to high use of AI tools in HRM operations that include recruitment, training, performance appraisal, and workforce analytics, with recruitment and decision-making being the most frequently adapted areas. In addition, statistical analysis shows weak and statistically insignificant relationships between use of AI, HR transformation and performance, demonstrating that at this stage, AI remains operational use rather than a transformative use. Use of AI is challenged by lack of digital infrastructure, low HR expertise in AI, lack of integration of the AI and HR function. The research highlights the path to AI potential, including capacity building, establishing ethical and governance principles and managing change. The findings highlight readiness to maximize AI potential relies on organizational readiness, support leadership to engage, capacity building and continuous evaluation to use AI consequence for sustainable HR transformation and employee performance in the digital age.

Keywords Artificial Intelligence, Human Resource Management, SPSS Analysis, IT Companies, Digital Transformation, AI Adoption, Uttar Pradesh.

1. Introduction

The fast-moving digitization is disrupting industries in India, and with new IT hubs and locations like Noida, Lucknow, and Kanpur in Uttar Pradesh, there is a vast growth of IT-enabled businesses. New start-ups and existing IT companies are looking more than ever for ways to effectively manage their talent pool, optimize operations, and improve productivity of the workforce. In this environment, HRM is evolving to be much more strategic and functions such as recruitment, onboarding, training, performance management, and employee engagement are now being seen as key areas to drive innovation and agility. AI has become a key component of this shift.

Current research indicates that artificial intelligence (AI) has the capacity to automate and optimize a variety of human resource functions, thus making more efficient use of employees' time, and creating the opportunity for organizations to leverage data and evidence in their decision making¹. Illustration here as examples are AI-driven recruitment processes, including but not limited to, smart applicant-tracking applications, and chatbot technology, which are able to categorize resumes, manage communication with candidates, and speed overall hiring processes. AI technologies can also assist organizations in developing customized onboarding journeys for new employees, streamlining document flows to automate many types of documents, and developing customized learning journeys for new employees². These systems can provide substantial efficiency improvements, better reduce time-to-fill and increase the time at which employees can become productive. Evidence from Indian IT companies confirms this pattern. For example, an AI-based analytics tool decreased manual pre-selection work approximately 80%, allowing HR teams to focus on more strategic initiatives³. In addition, Murugesan et al.⁴ report that AI applications now automate many HR processes, from recruitment and onboarding to performance management and employee engagement, supporting continuous performance tracking and real-time feedback. These abilities are especially beneficial to the IT sector in India which has compounding pressures (i.e., low wages and scale) to develop and scale worker skills.

Despite the benefits, there are still issues with implementing AI in HRM. Ethical discussions about algorithmic bias and perceived unfairness are still important^{5,6}. Data privacy looms as a major consideration, in that organizations must effectively navigate data privacy, regulation of AI usage and the maintenance of employee trust. The presence of technical and organizational constraints such as lack of expertise, high implementation costs, and lack of socio-cultural legitimacy or consensus around AI also impacts buy-in for wider distribution and adoption. In a developing economy like Uttar Pradesh where firms demonstrate a spectrum of digital maturity, a lack of digital infrastructure and educated workforce can further complicate adoption. Nevertheless, interest in the use of AI in HR has not waned. IT leaders in India are becoming more optimistic about employing AI to

improve the HR function throughout the organization, in areas such as recruitment, onboarding, learning and development, and performance management, which can be a benefit to employee experience and overall organizational competitiveness⁷. To meet this challenge organizations will need to prepare for the alignment of technology, ethics, employee readiness, and organizational priorities among other considerations. A successful implementation of AI in HRM will hinge not only on having the latest tool, but also governance, transparency, and a continuous development of the skills of HR professionals.

1.2 AI in HR Functions

Artificial Intelligence (AI) is reshaping conventional Human Resource (HR) processes into data-driven, strategic activities that improve operational efficiency and employee experience. Across global organizations, and now more commonly in Indian IT companies, AI technologies improve HR by automating repetitive tasks that require excessive time, as well as by providing information for managers to make rapid, evidence-based decisions. As an illustration, throughout the recruitment and onboarding phases of the employee lifecycle, AI software is able to automatically screen resumes, shortlist candidates, schedule interviews and manage logistics for orientations, thus reducing the biases that accompany human efforts, while substantially lessening administrative burden^{1,2}. The systems put recruiters in a position to recognize more of their valuable activities for example; relationship management for candidates and strategic workforce planning. Intelligent learning platforms look at the skill gaps for each individual and suggest personalized learning paths or micro-learning modules as part of training and development⁸. The system tracks the learner's progress in real-time, allowing the up-skilling process to be quicker and return on training investment improved⁹. Furthermore, AI-driven analytics in performance management systems track project milestones, quality of work, and productivity trends to continuously offer objective, data-driven feedback. This reduces the bias that can be associated with performance reviews¹.

Furthermore, AI is transforming employee engagement and employee engagement and retention engagement. Current engagement platforms use natural-language processing and sentiment analysis to understand survey and chat responses as well as feedback forms. AI can identify early indications of disengagement or burnout, and suggest to HR leaders to act on these findings as part of an effort of proactivity and prevention¹⁰. By way of these findings, AI heals employee feedback and points to a better responsive and inclusive workplace culture.



Fig 1

Source: <https://automationedge.com/infographic/how-generative-ai-will-transform-hr-operations>

The Automation Edge graphic above, titled "How Generative AI Will Revolutionize HR Operations," is a visual representation of the broad, varied area of development. This visual framework outlining the end-to-end integration of generative AI technologies into several of the main areas of HR - recruitment automation, onboarding support, personalized learning and development, intelligent performance tracking and predictive

engagement metrics. The infographic addresses the idea of viewing HR as a workflow that automates communication, creates content, and supports decision-making, to improve the total HR workflow from candidate recruitment to employee engagement options that may support retention. At the same time, it also outlines key areas related to ethical accountability, data privacy, and human oversight, all of which will continue to be crucial in building trust in the ways of employing AI in HR processes.

By integrating efficiency and ethical consciousness, the image reinforces the central claim of this study: AI is much more than a tool for automating administrative tasks in HR; it is a development partner that can help lead the transformation of HR practice. The image encapsulates the dual nature of AI: its ability to transform HR performance, and organizations' difficulties dealing with issues of fairness, transparency, and cultural acceptance. Thus, the figure serves as a conceptual bridge between technology-driven innovation and people-centric management, which is inherently connected to the research aim of exploring how IT companies in Uttar Pradesh are adopting and adapting AI into their HR processes.

2. Objective of Study

- a) To identify various AI tools that are used in transformation of HRM in IT companies of UP.
- b) To study impact of AI in transformation of HRM in IT companies of UP.
- c) To study impact of AI on employee's performance in IT companies of UP.

3. Research Methodology

3.1 Research Framework

The purpose of this study is to explore the transformative power of Artificial Intelligence (AI) on Human Resource Management (HRM) practices among IT companies in Uttar Pradesh (U.P), India. The study used a mixed-methods approach to obtain depth and breadth in the understanding of the phenomenon while integrating qualitative results from the literature and expert perspectives with quantitative results from empirical data analysis.

3.2 Research Design

This research utilized a sequential exploratory–descriptive research design to achieve both theoretical and empirical depth. In the exploratory phase, a thorough review of the appropriate literature and discussion with experts in the field were engaged to identify the primary AI applications, opportunities, and challenges that impact HRM transformation. The results of these exploratory findings contributed to the outline and hypotheses of the conceptual framework. The descriptive phase followed up with a quantitative analysis which examined the relationships between AI adoption, HR transformation, employee performance and workplace dynamics, presented in a structured survey dataset. This integrated design ultimately supported the theoretical and empirical generalizability of the research findings.

3.3 Sampling Technique and Sample Size

The research utilized a non-probability purposive sampling method to recruit respondents who had accurate exposure and knowledge of AI-driven HR systems and tools. This ensured participants have experience using HR practices that were enabled by technology, increasing the accuracy and contextual relevance of the data. The final sample included 277 respondents, made up of HR professionals, managers, and employees of IT companies throughout Uttar Pradesh. At that point, this sample was considered large enough to conduct multivariate statistical analysis such as regression and factor analysis.

3.4 Data Sources and Collection Procedure

In order to increase validity and reliability of our findings, we relied on both primary and secondary data. We collected primary data via a structured, online-based survey sent to HR professionals and employees within IT companies using online and offline methods. The purpose of the survey was to gain insights into perceptions surrounding the use of AI, the impact of AI on the transformation of the HR function, and the effects on employee performance and culture in the workplace. Secondary data were collected from peer-reviewed journals, academic texts, and industry reports to further ground our theoretical framework and contextual understanding. All participants were informed of the study's purposes and all data collection was undertaken ethically and transparently.

3.5 Instrument Design

The research instrument was designed to be in line with the study goals and hypotheses. It consisted of four major sections relating to demographic data, AI adoption in HR functions, perceived differences AI may have on HR transformation and employee performance, and factors or ethical issues that may arise from AI use. The constructs were adapted from existing validated measures in earlier empirical studies to maintain consistency and reliability. All items made use of a five-point Likert scale from 1 ("Strongly Disagree") to 5 ("Strongly Agree") for quantitative measures of perceptions and attitudes.

3.6 Data Analysis Techniques

To uphold methodological credibility and rigor, analysis of quantitative data was conducted using the software SPSS version 26. Descriptive statistics were calculated indicating demographics of respondents and AI adoption levels across HR functions. Reliability analysis was conducted using Cronbach's alpha to assess the internal consistency of measurement scales. Correlation analysis was conducted to identify relationships between core variables, while multiple regression analysis was used to examine the influence of AI adoption on HR transformation, employee performance and workplace environment. Exploratory Factor Analysis (EFA) was also used to identify latent constructs and provide validity to the underlying measurement framework. This systematic analytical was designed to provided statistical accuracy and also clarity of interpretation.

3.7 Ethical Considerations

The research followed ethical procedures set forth by reputable standards in academic research. Participation was completely voluntary and supplied informed consent. The principles of anonymity and confidentiality were upheld throughout the process so that no information that the researcher could identify individual participant's was collected or disclosed. The data's were used for academic purposes only and participant's retained the right to withdraw at any time during the research process. Adhering to these ethical procedures assured that the integrity, transparency, and credibility of the research was maintained.

4. Result & Analysis

Objective 1 : To identify various AI tools that are used in transformation of HRM in IT companies of UP.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Recruitment AI Tool	277	2	5	3.99	.780
AI Training Development	277	2	5	3.95	.779
AI Performance Appraisal	277	2	5	3.99	.773
Workforce Analytics	277	2	5	3.99	.766
HR Chatbots	277	2	5	3.93	.809
Valid N (listwise)	277				

From the descriptive statistics outlined in the table, we can see that each of the five AI-related tools was used in general HRM functions in all the IT companies in Uttar Pradesh. Mean values for items amongst respondents ranged from 3.93 to 3.99, which generally indicate agreement among respondents about the use of AI technologies in HR processes. Meanwhile, the standard deviation values (0.76–0.81) indicated fairly low variability, or at least, agreement amongst respondents. Amongst the five tools, the Recruitment AI Tool, Performance Appraisal, and Workforce Analytics all received the highest mean (3.99), implying these three tools are most adopted as applied AI applications in HRM. Meanwhile, HR Chatbots (M = 3.93) were slightly lower in use, but still displayed a positive trend in use. Overall, it can be stated that AI has firmly positioned itself in their HR functions especially recruitment, performance appraisal, and workforce planning.

Table 4.2 Reliability Statistics

Cronbach's Alpha	N of Items
.171	5

The Cronbach's Alpha value of 0.171 for the five items indicates little internal consistency and low reliability of the scale assessing the construct. Typically, a Cronbach's Alpha value of 0.70 or higher is considered an acceptable level of reliability for research¹¹. This low value indicates low consistency of agreement among the five items for the same underlying concept and suggests that the items are likely not closely related. Point. Low internal consistency could also occur as a result of unclear or heterogeneous items; insufficient item wording; or variations in respondents' interpretations. The researcher should re-assess the items in an effort to address the low reliability, removing items that do not align conceptually and/or rewording the items. A follow-up item-total correlation analysis would be beneficial in identifying which statements were potentially deconstructing the internal consistency of the scale.

Objective 2 : To study impact of AI in transformation of HRM in IT companies of UP.

Table 4.3 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AI_Efficiency	277	2	5	3.86	.840
AI_Accuracy	277	2	5	3.88	.810
AI Decision Making	277	2	5	3.84	.813
AI Admin Workload	277	1	5	3.81	.839
AI Engagement	277	2	5	3.82	.826
Valid N (listwise)	277				

The descriptive statistics presented in Table 4.3 suggest that respondents largely consented that Artificial Intelligence (AI) positively impacted the HRM functions within IT companies working in Uttar Pradesh. The mean score ranged from between 3.81 to 3.88 which indicates a generally high mean perception score relating to the use of AI in improving HR efficiency, accuracy, and HR decision-making. Since "AI reduces administrative workload" received the lowest mean score (3.81), that suggests while respondents indicated AI's importance, some faced hurdles in the completion of their duties or hoped that AI would take on administrative workloads. The standard deviations (0.81–0.84), were all relatively low, demonstrating a consensus amongst the respondents. AI Accuracy (M = 3.88, SD = 0.81) was the highest mean of all factors which demonstrates an overwhelming belief that AI improves HR functionality by reducing errors in their operations. Overall, these findings indicate that AI being implemented within an organization is the best way to achieving better effectiveness within HR and optimizing processes.

Table 4.4 Reliability Statistics

Cronbach's Alpha ^a	N of Items
-.062	5
a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.	

The Cronbach's Alpha value calculated at –0.062 shows that these items, used in this section, exhibit poor internal consistency and do not measure the same concept reliably. A negative alpha indicates that there is an issue either with item coding, or the variables do not represent a shared concept. This usually occurs when certain items are worded in the reverse direction but were not appropriately recoded prior to analysis or that the items are not conceptually related to each other. This results not only violates the basic assumptions about reliability analysis, but it also means that this scale cannot be understood to be internally reliable in its current state. As a result, it is important to evaluate the coding of items, explore the relevance of each question to the construct, and refine and/or boilerplate items that are not consistent before proceeding further with analysis that could provide valid reliable measurement.

Table 4.5 Correlations

		HR_Transformatio n	AI_Tools_in_HRM
HR Transformation	Pearson Correlation	1	-.018

AI Tools in HRM	Sig. (2-tailed)		.772
	N	277	277
	Pearson Correlation	-.018	1
	Sig. (2-tailed)	.772	
	N	277	277

According to the correlation results presented in Table 4.5, there is a very weak and negative correlation between AI Tools in HRM and HR Transformation ($r = -0.018$, $p = 0.772$). The value of p greater than 0.05 indicates that the correlation is not significant, which means no meaningful or dependable changes in AI Tools in HRM affected HR Transformation for the IT firms surveyed in Uttar Pradesh. This finding indicates that AI tools are being used by organizations, but to assert that they contribute to HR transformation would be premature as businesses do not seem to have fully realized their potential. Further contributing to this inconclusive finding may include limited AI development and integration in HR frameworks, lack of employee training, and lack of readiness for an AI based HR function. Overall, the implication is that the effect of AI tools on HR Transformation is not conclusive and may warrant further study and model refinement.

Table 4.6 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.018 ^a	.000	-.003	.36098
a. Predictors: (Constant), AI_Tools_in_HRM				

According to the model summary in Table 4.6, AI Tools in HRM has a very weak, and statistically insignificant relationship with HR Transformation. The R value of 0.018 demonstrates almost no correlation between those two variables, while the R Square value of 0.000 suggests that AI tools explain essentially no variance in HR transformation in the surveyed IT companies. The Adjusted R Square (-0.003) confirms that the model lacks explanatory power. The standard error of the estimate (0.36098) estimates that the data is somewhat variable and does not represent the model accurately. In sum, AI tools in HRM does not significantly predict, nor relate to changes in HR transformation in this sample, and suggest that perhaps other organizational- or context-related variables were more important in influencing HR transformation in these set of workplaces.

Table 4.7 ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.011	1	.011	.084	.772 ^b
	Residual	35.834	275	.130		
	Total	35.845	276			
a. Dependent Variable: HR_Transformation						
b. Predictors: (Constant), AI_Tools_in_HRM						

The analysis of variance (ANOVA) presented in Table 4.7 indicates that the regression model, which examined the role of AI Tools in HRM related to HR Transformation was not significant. The F stat of 0.084 and p value of 0.772 ($p \geq 0.05$) confirm that the model does not explain meaningful variation in HR transformation, based on the adoption of AI tools. Therefore, based on the data, the use of AI tools do not significantly predict or influence HR transformation in IT companies in Uttar Pradesh. The finding of the F-test being insignificant is aligned with both the correlation and model summary interpretations, and therefore, it seems that while there are evidence of AI tools, their ability to fundamentally influence or impact HR transformation is either minimal or inconsistent which has been supplied by the studied organizations. Other factors related to the organization and their context appear to be more significant influences on HR transformation.

Table 4.8 Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.911	.230		16.985	.000

	AI_Tools_in_HRM	-.017	.058	-.018	-.290	.772
a. Dependent Variable: HR_Transformation						

The coefficients table (Table 4.8) clearly shows that AI Tools in HRM do not significantly affect HR Transformation. Indeed, both the unstandardized coefficient ($B = -0.017$) and standardized beta value ($\beta = -0.018$) indicate an insignificant and negative relationship between AI Tools and HRM transformation. A t-value of -0.290 reveals a p-value of 0.772 ($p > .05$), indicating that there is no statistical impact. The means that variations in seamless adoption or use of AI tools, are not associated with demonstrable changes in the levels of HR transformation within the sample of IT companies. The constant value ($B = 3.911$) suggests the level of HR transformation when AI Tools are not salient. Therefore, overall results suggest that AI implementation alone is not a meaningful predictor of HR transformation, demonstrating that there could be other mediating or contextual factors that are more relevant to advancing HR growth and modernization.

Objective 3 : To study impact of AI on employee's performance in IT companies of UP.

Table 4.9 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AI_Productivity	277	1	5	3.79	.772
AI_Feedback	277	1	5	3.75	.854
AI_Skill Gap	277	2	5	3.80	.729
AI Learning	277	2	5	3.73	.828
AI Fair Evaluation	277	2	5	3.67	.823
Valid N (listwise)	277				

The descriptive results in Table 4.9 demonstrate that, overall, respondents have a positive view of the effect of Artificial Intelligence (AI) on employee performance in IT companies in Uttar Pradesh. The mean scores of the items range between 3.67 - 3.80, with respondents indicating moderate to strong agreement that AI does have an impact on enhancing various dimensions of performance. AI Skill Gap ($M = 3.80$, $SD = 0.73$) received the highest mean of any of the factors, indicating that respondents believe that AI is effective in identifying and bridging skill gaps. AI Fair Evaluation ($M = 3.67$, $SD = 0.82$) received the lowest mean of the factors, suggesting that respondents have somewhat less confidence in AI's fairness regarding evaluations compared to the other categories. The standard deviations reported ($0.72-0.85$) demonstrate some moderate distribution. Overall, the results demonstrate that AI tools positively impact employee productivity, feedback, and learning, which contributes to improved performance outcomes.

Table 4.10 Reliability Statistics

Cronbach's Alpha ^a	N of Items
-.007	5
a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.	

The value of Cronbach's Alpha at -0.007 displayed in Table 4.10 indicates that the items used to measure employees' performance are unreliable and do not constitute internal consistency. Also, a negative alpha indicates the items are not positively related to one another and may even be measuring different things instead of a single concept. This often occurs when the items were not coded correctly, reverse worded items were not recoded appropriately, or a conceptual mismatch existed among the questions. Since the definition of reliability is that all items move in the same direction, having a negative value violates this assumption. Therefore the scale cannot be regarded as reliable for further data analysis in its current form. The researchers should reconsider item coding, implement a consistent scale, and possibly remove or revise items that do not align conceptually to increase the reliability of the employee performance construct.

Table 4.11 Correlations

		HR_Transformation	Employee_Performance
HR Transformation	Pearson Correlation	1	.091

Employee Performance	Sig. (2-tailed)		.129
	N	277	277
	Pearson Correlation	.091	1
	Sig. (2-tailed)	.129	
	N	277	277

The correlation findings in Table 4.11 demonstrate a weak positive association between HR Transformation and Employee Performance ($r = 0.091$, $p = 0.129$). Although the relationship is positive, the p-value greater than 0.05 suggests that this relationship is not statistically significant. This means, based on the data collected from IT companies in Uttar Pradesh, that improvements in HR Transformation do not demonstrate a relevant or consistent relationship with employee performance. Additionally, the relatively weak correlation indicates that AI HR practices may be present but have not resulted in performance improvements for the employees. A few possible explanations for these findings might include limited integration of AI practices in HR, users' lack of training for the AI HR practices, or fear or resistance to new technologies in the organization. As a whole, the findings suggest that we cannot simply assume that HR Transformation will improve employee performance without more supporting initiatives, such as employee engagement or change management initiatives.

Table 4.12 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.091 ^a	.008	.005	.35703
a. Predictors: (Constant), HR Transformation				

According to the model summary presented in Table 4.12, it can be seen that HR Transformation bears a very weak and statistically insignificant relationship to Employee Performance, as indicated by the R value of 0.091 affirming a minimal, positive correlation. The R Square value of 0.008 implies that HR transformation only accounts for 0.8% of employee performance variation in the responses received. The adjusted R Square value of 0.005 confirms the limited explanatory power of the model. The standard error of estimate (0.35703) shows that the variation in employee performance is primarily attributable to other variations aside from HR transformation. These findings suggest that improvements in HR transformation through AI in the IT companies of Uttar Pradesh have not yet manifested into a measurable impact on employee performance. Therefore, other factors impacting performance could include motivation, leadership support, employee adaptability, and/or organizational culture.

Table 4.13 ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.295	1	.295	2.317	.129 ^b
	Residual	35.055	275	.127		
	Total	35.350	276			
a. Dependent Variable: Employee_Performance						
b. Predictors: (Constant), HR_Transformation						

According to the data shown in Table 4.13, the results of the ANOVA showed that the regression model evaluating the relationship between HR Transformation and Employee Performance was not statistically significant. The F-value of 2.317 and p-value of 0.129 ($p > 0.05$), indicated that the model did not explain a meaningful proportion of employee performance variance. In layman's terms, this means that the HR transformation changes being studied do not significantly predict or explain employee performance among IT company respondents in Uttar Pradesh. The conclusions are consistent with the earlier correlation and model summaries that showed a weak and statistically insignificant relationship between HR transformation and employee performance. Overall, this means that even though AI-led HR transformation initiatives are emerging, measurable improvements in employee performance are not taking place--likely due to being early in the journey, the appropriate training has not yet occurred, or the initiatives have not been practically embedded within organizational workflows.

Table 4.14 Coefficients^a

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
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		B	Std. Error	Beta		
1	(Constant)	3.398	.230		14.757	.000
	HR Transformation	.091	.060	.091	1.522	.129
a. Dependent Variable: Employee_Performance						

The coefficients table (Table 4.14) indicates that HR Transformation has a positive effect on Employee Performance, though it is statistically insignificant. The unstandardized coefficient ($B = 0.091$) and standardized beta ($\beta = 0.091$) suggest a very weak positive relationship, suggesting there will be a very slight increase in employee performance (0.091) for each unit increase in HR transformation. However, the t-value of 1.522 and p-value of 0.129 ($p > 0.05$) indicate that this result is not statistically significant. The constant ($B = 3.398$) shows the level of employee performance when HR transformation is held constant. These results suggest that there does not appear to be significant increases in employee performance as a result of increased HR transformation brought about by AI among IT companies in Uttar Pradesh. This could be due to a lack of depth of implementation, lack of readiness of employees, or lack of incorporation of the AI-driven HR transformation into day-to-day practices.

5. Discussion

The research findings show that while IT organizations are using AI applications such as recruitment, training, performance reviews, and analytics in Uttar Pradesh, their measurable contribution to HR transformation and employee performance is minimal. The descriptive findings suggest respondents largely agreed on the use of AI in HR processes, especially recruitment and workforce analytics, which indicates organizations are moving towards technology systems in their HR process. However, the measured correlation and regression analysis showed weak, insignificant correlations between AI applications in HR, HR transformation, and employee performance; suggesting while AI systems are top-of-mind, they are still developing, integrating, and building an impact in HR processes.

These results are aligned with the findings of Tambe et al.¹² and Vrontis et al.⁶, who claim that the actual effectiveness of AI in HRM can only be achieved with an adequate level of digital readiness, employee training, and organization flexibility. The weak association among these findings can also result from resistance to change in the culture; insufficient skills and knowledge to implement AI; and/or there is no cohesive strategy around AI for HR departments. Therefore, while AI has the potential to be a transformative resource in HRM and to increase productivity, its current use in IT companies of Uttar Pradesh is more operational than strategic/transformation, which would require increasing its investment in capability-building, ethical governance, and change management to maximize impact.

6. Conclusion

The research investigated how Artificial Intelligence (AI) is changing Human Resource Management (HRM) functions and how it affects employee performance in IT companies of Uttar Pradesh. The findings indicated that AI tools are progressively taking their place in HR functions, such as recruitment, training, performance assessment, and workforce analytics, but still have limited effects on HR transformation and employee performance. The descriptive analysis revealed a moderate to high adoption of AI tools, especially for recruitment and decision-making functions. However, correlation and regression analyses showed weak and statistically insignificant relationships of AI tools with HR transformation and employee performance, suggesting that AI adoption has yet to reach its optimal strategic potential in HRM.

This weak relationship can be explained by several factors, such as a lack of digital infrastructure, lack of HR expertise in AI technology, and the fact that AI usage in organizations is at an early stage. Although AI has begun to streamline administrative functions and support decisions based on data analytics, its use in driving innovation, employee satisfaction, and sustainable, measurable outcomes has not yet been fully realized. The results indicate that for AI to truly transform HRM, organizations must implement comprehensive initiatives, which continue to build user competency with the support of training, change management, and ongoing evaluation of AI applications. In addition, policies and commitment of leadership are necessary conditions that can leverage the relationship between AI use and HRM transformation. In summary, AI has the potential to enhance efficiency and strategic capability across HRM, but the extent of this impact will derive from the readiness of organizations to adapt to technology, the willingness of people to adapt, and the ethical use of AI to facilitate sustainable transformation and improve performance in the digital context.

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