

AI-enabled Leadership and Employee Performance: An Empirical Study of Indian Organization

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Abstract:

Artificial Intelligence (AI) is increasingly transforming leadership practices by enabling managers to make data-driven decisions, improve communication, personalize employee support, and enhance organizational effectiveness. The study examines the relationship between AI-enabled leadership and employee performance in Indian organizations. It focuses on how AI-enabled tools in leadership practices influence employee's productivity, efficiency, engagement, adaptability, and overall job-performance. The study considers key dimensions of AI-enabled leadership, including AI-supported decision-making, personalized employee management, intelligent communication, performance monitoring, and data-driven leadership. The study aims to assess employee's perception of AI-enabled leadership and determine its impact on their performance. The findings are expected to provide insights into how organizations can integrate AI with human-centered leadership practices while maintaining employee trust, transparency, and effective collaboration. A sample of 369 was collected to find the result of the study. The factors identifying the impact of AI-enabled Leadership and Employee Performance are AI-enabled Decision-making, Employee Performance, Employee Engagement and Motivation and AI Training and Skill Development.

Keywords: AI-enabled leadership, employee performance, employee engagement, data-driven decision-making, Leadership practices

Introduction

AI-enabled leadership is the capability of leaders of integrating and managing the use of AI within the organization for achievement of their goals. The leaders need to understand how organizational process can be transformed through Artificial Intelligence along with the practices of decision-making and workflow. Therefore, AI-enabled leadership is not just regarding technical competence but also how to balance technical capabilities with human-centered approaches. Leadership matters when it can help employees in understanding the main purpose of Artificial Intelligence and can create work environment where AI is been considered as an opportunity and not as a threat (Chandra, Ruslaini & Sugiharti, 2026). AI is transforming the landscape of organizational leadership undeniably. Starting from data driven decision-making and intelligence talent management to AI-enabled innovation and enhanced collaboration, Artificial Intelligence has reshaped not what leaders are doing but how they are thinking, communicating and inspiring. Rising Artificial Intelligence has brought fundamental shift from decision-making based on intuitions to leadership which is data-informed. While emotional intelligence and human instincts stay essential, AI-enabled leaders need to complement their judgement with predictive analytics, real-time data, and algorithmic insights. This data-driven approach improves objectivity, reduce biasness and permits for precise forecasting, management of risk, and allocation of resources. Artificial Intelligence improves knowledge management mainly through distribution of knowledge followed by efficiency gains, real-time collaboration and application of neural network. A significant improvement is made by AI-driven knowledge management on organizational decision-making, sustainable growth and competitiveness (Mittal et al., 2023). For organizational transformation and everyday management of the company integration of AI has become essential, making employees Artificial Intelligence usage a predominant phenomenon. Leaders showing favorable attitude

towards the adoption of Artificial Intelligence, they can clear a compelling vision, model appropriate behavior providing supportive feedback, all of these would improve employee engagement with Artificial Intelligence (Wang, Liu & Ao, 2025).

Artificial Intelligence enabled transformational leadership reduce burnouts significantly by improving AI learning self-efficiency of employees. Furthermore, strong work practices that are AI-enabled would strengthen this positive impact, although the moderating role of organizational adequacy of AI-communication stay indecisive. A blend of advanced tools of Artificial Intelligence and practices of transformational leadership would enable leaders to inspire and motivate its employees and instil confidence in the idea to learn and utilise AI tools and technologies. The outcome confirms and advances the traditional theories of leadership in technology-based settings, showing that incorporation of Artificial Intelligence into leadership improving its impact on well-being of employees. The importance of ensuring that employees are equipped with the needed competencies and confidence in the capabilities for navigating the quickly changing digital environment has been highlighted by the mediating factor of AI-learning self-efficacy. Moreover, the moderating role played by AI-enabled work practices recommends that the positive influence of leadership on well-being of employees is strengthened when organizations integrate Artificial Intelligence systematically into their everyday practices (Jia et al. 2025). Integration of Artificial Intelligence technologies into the practices of leadership develops a learning-oriented culture as it is important for the agility, innovation and sustainable competitive advantage of the company. New empirical insights are contributed by this work to bridge the gap between Artificial Intelligence leadership and theories of organizational learning, thus, to advance the understanding how digital transformation is reshaping effectiveness of leadership. AI-enabled leadership improves organizational and employee performance significantly directly and indirectly both with the mediating role of organizational learning. It confirms that leveraging AI technologies in leadership do not just enhance decision-making and strategic agility but it also develops a culture of constant learning as it is essential for sustainable competitive advantage. The strong and positive relation between Artificial Intelligence leadership and organizational learning highlights the transformative potential of Artificial Intelligence as a cognitive supporting tool for acquisition, sharing and application of knowledge (Asiabar & Asiabar, 2025).

Literature Review

A substantial transformation in how leader function would result from the incorporation of AI into techniques of leadership. By offering data-driven insights and real-time analysis, Artificial Intelligence has the potent to transform decision-making as it relieves executives from everyday tasks and responsibilities permitting them to focus on strategic thinking and innovation. Furthermore, it also provides a predictive people management and personalized leadership development escorting in a new era of personalized growth and planning of leadership succession. Maintaining fundamental human traits in leadership, and ethical issues stay crucial. In order to maintain inventiveness, empathy, and moral decision-making need striking the perfect balance between human judgement and AI-driven insights. Artificial Intelligence will help in changing leadership and corporate culture along with educational methods as it develops (Madanchian et al. 2024). AI improves work engagement and employee performance significantly, with digital leadership that acts as a critical mediator strengthening the efficacy of AI-driven initiatives as it enables employees to move from everyday activities to more strategic activities. The findings highlight the significance for companies to make investment in development of digital leadership mainly in digital literacy, strategic decision-making and change management and create a culture of innovation, collaboration and constant learning for sustainable performance gains. However, the focus of the study on digital companies and its cross-sectional design limiting the broader casual interpretation and generalizability. Business organization need to make investment in leadership development programs emphasising on digital skills and strategic thinking. With this, company can ensure that their leaders are well-prepared for harnessing the full potential of Artificial Intelligence technologies. Moreover, to create a supportive organizational culture that value collaboration and adaptability is a key to sustain the positive influence of AI-driven initiatives (Duwiningrum & Rachmawati, 2026). A significant alteration is made by Artificial Intelligence in the nature and pace of work. The incorporation of Artificial Intelligence in numerous sectors has made significant influence on the employee performance and operational efficacy of the organizations. Integrating AI can result in enhancing the overall

efficacy of employees, boosting their performance and productivity and producing the results accelerating the achievement process of organizational goals as well as objectives. Adopting Artificial Intelligence skills makes a significant influence on employees if supported by management, the employees have interest and acquire these skills for the adoption, and if proper infrastructure is developed to integrate AI. Integrating Artificial Intelligence in the system has the capability of improving the employee performance. It assists in informed decision-making, enhances the productivity of employees by automation of repetitive tasks. The level to which Artificial Intelligence can improve employee performance depends on many factors. These factors include laws and policies, managerial support, combined with the willing of employees to incorporate and adopt the tools and technologies of Artificial Intelligence (Farhan, Alhazmi & Alsakkaf, 2025).

For changing organizational dynamics, AI has become a key element in this age of rapid technological advancement, mainly in the domain of leadership. Artificial Intelligence is being used by companies for finding the future leaders and development of their leadership skills. Development of leadership is being revolutionised by AI. Artificial Intelligence has revolutionary benefits in predictive analytics and personalized learning. Incorporating AI into leadership development also brings some difficulties that require careful considerations. Data-driven insights of Artificial Intelligence, predictive analytics and automated solutions have changed the way people are developing leadership skills significantly. Artificial Intelligence assist companies in finding high-potential employees, enhance leadership training facilitating smooth transitions of leadership. Artificial Intelligence assist organizations in the development of more effective and future-ready strategies of leadership by combining human-centric approaches of leadership with Artificial Intelligence. Further advancement in Artificial Intelligence driven talent management and development would enhance leadership development, it guarantees businesses to remain competitive in a transforming business environment (Banyal & Panwar, 2025). As AI becomes highly embedded on organizational processes, questioning about its influence on leadership have attained prominence. Depending on the alignment between how deeply Artificial Intelligence is integrated in decision-making process, how leaders interpret and oversee algorithmic results, and how mechanism of governance ensures trust, transparency and accountability. Artificial Intelligence does not just improve tasks of leadership, it restructures the cognitive, relational normative foundation of organizational authority. As Artificial Intelligence becomes rooted in decision architectures, leadership shifts from flexible individual action towards universal standardization within socio-technical infrastructure. Artificial Intelligence augmented leadership cannot be reduced to technological complexity, adaptation of leadership styles, or ethical compliance considered autonomously. Rather, effectiveness appears from vertical consistency across three independent layers, which are reconfiguration of capabilities, strategic orchestration, and governance-legitimacy safeguards operations within human and AI hybrid system (Santiago-Torner, Corral-Marfil & Tarrats-Pons, 2026).

As AI is rapidly integrating into organizational process is reshaping traditional models of leadership, mainly within the domain of workplace development. As Indian organizations are facing digital disruption and evolving demands of the workforce, AI technologies are being leveraged by leaders for better decision-making and cultural alignment. Artificial Intelligence can streamline internal processes of HR like collection of feedback, handling of query, planning of workforce and tracking of performance each making contribution to stronger employee engagement and organizational effectiveness. As businesses are navigating with the appearing digital economy, it is important to understand how Artificial Intelligence make influence on leadership and strategies of human capital becoming essential to achieve sustainable growth and competitive advantage. With regards to the integration of Artificial Intelligence in functions of leadership, a wide range of AI tools are found to be influencing aspects like monitoring of performance, decision-making and overall effectiveness of leadership. There were suggestions that leaders are engaged with strategies of Artificial Intelligence, and AI systems are found to be playing a role in areas such as development and training of employees, although the level and specific impacts that remains evolving (Sarsar & Vidyasagar, 2025). A huge transformed is noticed in the system of performance management in Indian organizations because of rapid adoption of AI. Machine learning, data analytics and automation enabling the services of performance management offered by Artificial Intelligence makes real-time feedback, appraisals, and development of employees more accurate. The framework of performance management has been transformed by Artificial Intelligence by improving the level of its precision, predictiveness and capability of making strategic decisions, nevertheless, the advantages can be produced in case company is treated in a human-centered way

(Gupta & Tembhurnekar, 2025). HRM practices driven by Artificial Intelligence, adaptability by employees, and effective collaboration of human and AI all make significant contribution to improve organizational agility and employee performance.

Organizational agility, in particular, has emerged as a main mechanism through which factors are translated into enhanced employee outcomes, it highlights that behavioral, technological and collaborative capabilities alone are not just enough unless they are supported by an agile organizational structure. It is confirmed by the findings that is a vital enabler to convert AI-enabled HRM initiatives into tangible performance enhancements (Al-Zagheer et al. 2026). In present landscape of dynamic workplace, companies are constantly seeking to innovate strategies for improving employee engagement, enhance employee engagement, enhance productivity and retain top talent. Traditional approach of employee engagement usually falls short to address the evolving requirements of modern demographics of workplace. However, advancing AI is presenting extraordinary opportunities revolutionising practices of employee engagement. Implementing Artificial Intelligence enabled tools and strategies has led to tangible improvements in levels of employee engagement, satisfaction in job and commitment among workforce. Initiatives of personalized engagement, facilitated by AI technologies like analysis of sentiment and predictive analytics have developed a sense of belonging and empowerment among employees, thus improve their productivity as well as motivational level (Ranganath, Rao & Niharika, 2024). In contemporary organizations, AI has appeared as a transformative force, it has basically transformed the process of business, practices of workforce and operational strategies. The rising integration of Artificial Intelligence technologies, it includes ML, predictive analytics, intelligent automation and data-driven decision-support system has made a substantial influence on how a company manages their resources, enhance productivity and attain competitive advantage. Adoption of Artificial Intelligence has the potent to enhance productivity of employees, improve the quality of decision-making and optimize the organizational process. However, the realization of benefits is dependent on the effectiveness of implementation strategies, readiness of employees and constant development of skills (Ved & Pande, 2026).

Objective

1. To know the factors influencing “AI-enabled Leadership and Employee Performance”
2. To measure the impact of AI-enabled Leadership on Employee Performance

Methodology

369 participants were surveyed from participants who have Experience with AI tools. The method of sampling was “Random sampling” for collection of data and examination was done by “Explanatory Factor Analysis” for results.

Findings

Table 1 demonstrates demographic details, it shows that 57.18% are Male, 42.82% are female. Looking at the age, 34.42% are between 25 to 35 years of age, 30.08% are between 35 to 45 years of age, and 35.50% are above 45 years of age. With regards to Experience with AI tools, 34.96% have no experience, 31.16% have experience between 1 to 5 years and 33.88% have more than 5 years of experience.

Table. 1 Respondent’s Details

Variables	Participants	Percentage
Gender		
Male	211	57.18%
Female	158	42.82%
Total	369	100

Ages in years		
25 to 35 years	127	34.42%
35 to 45 years	111	30.08%
Above 45	131	35.50%
Total	369	100
Experience with AI tools		
No Experience	129	34.96%
1 to 5 years	115	31.16%
More than 5 years	125	33.88%
Total	369	100

“Factor Analysis”**“KMO and Bartlett's Test”****Table. 2 “Kaiser-Meyer-Olkin Measure of Sampling Adequacy”**

“Kaiser-Meyer-Olkin Measure of Sampling Adequacy”		.773
“Bartlett's Test of Sphericity”	“Approx. Chi-Square”	6415.481
	df	91
	Significance	.000

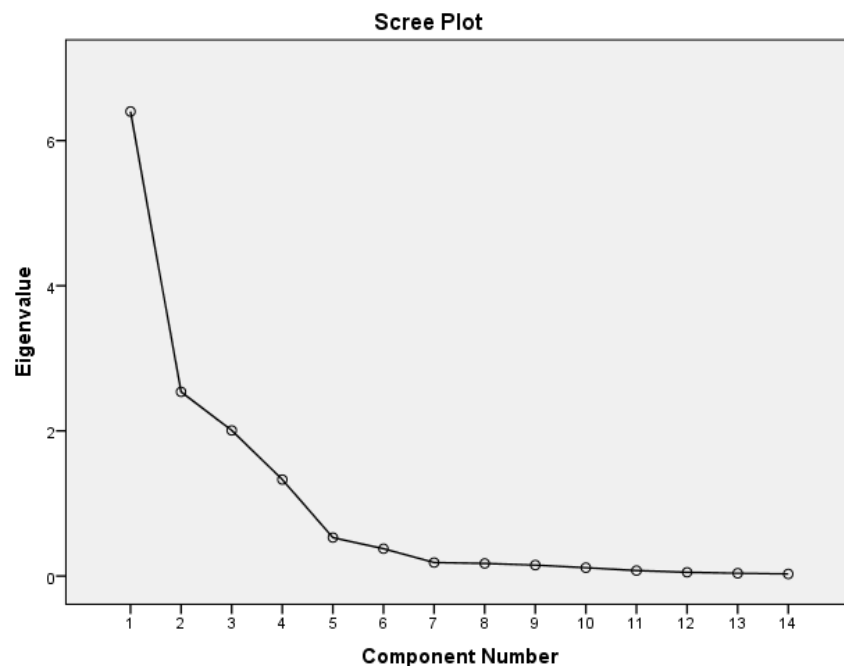
“KMO and Bartlett's Test”, value of KMO is .773 (Table 2).

Table 3 “Total Variance Explained”

“Component”	“Initial Eigenvalues”			“Rotation Sums of Squared Loadings”		
	“Total”	“% Of Variance”	“Cumulative %”	“Total”	“% Of Variance”	“Cumulative %”
1.	6.400	45.716	45.716	3.836	27.398	27.398
2.	2.538	18.127	63.844	3.619	25.849	53.246
3.	2.007	14.336	78.180	2.473	17.666	70.912
4.	1.330	9.497	87.677	2.347	16.765	87.677
5.	.530	3.787	91.465			
6.	.377	2.690	94.155			
7.	.186	1.327	95.482			
8.	.173	1.239	96.721			
9.	.151	1.075	97.796			

10.	.115	.820	98.616			
11.	.075	.534	99.150			
12.	.052	.372	99.522			
13.	.038	.273	99.795			
14.	.029	.205	100.000			

The four factors contribute towards explaining total 87.677% of variance. Variance explained by AI-enabled Decision-making is 27.398%, Employee Performance is 25.849%, Employee Engagement and Motivation is 17.666%, and AI Training and Skill Development is 16.765%. (Table 3).



“Scree Plot”

Table. 4 “Rotated Component Matrix”

S. No.	Statement	Factor Loading	Factor Reliability
	AI-enabled Decision-making		.950
1.	AI tools help leaders make faster managerial decisions	.954	
2.	AI provide leaders with useful information for decision-making	.905	
3.	Leaders use AI-generated insights to improve quality of decisions	.851	

4.	AI helps leaders in identifying problems before they affect performance	.849	
	Employee Performance		.961
1.	AI-enabled leadership helps in improve employee performance	.958	
2.	AI tools help in competing tasks more efficiently	.904	
3.	AI-enabled system improves quality of work	.900	
4.	AI-enabled system saves time while performing job responsibilities	.872	
	Employee Engagement and Motivation		.874
1.	AI-enabled leadership encourages employees to perform better	.905	
2.	AI-based feedback helps in improving employee performance	.850	
3.	AI-enabled leadership encourages employees to take greater responsibilities	.778	
	AI Training and Skill Development		.841
1.	AI training helps employees improve professional skills	.929	
2.	Leaders encourage employees to develop AI-related competencies	.928	
3.	AI-based learning opportunities improve ability to perform better job	.646	

Factors of the study and its related variables

The first factor of the study is AI-enabled Decision-making, the variables it includes are AI tools help leaders make faster managerial decisions, AI provide leaders with useful information for decision-making, Leaders use AI-generated insights to improve quality of decisions and AI helps leaders in identifying problems before they affect performance. Employee Performance is the second factor, its variables are AI-enabled leadership helps in improve employee performance, AI tools help in competing tasks more efficiently, AI-enabled system improves quality of work, and AI-enabled system saves time while performing job responsibilities. Third factor is Employee Engagement and Motivation, it include variables like AI-enabled leadership encourages employees to perform better, AI-based feedback helps in improving employee performance and AI-enabled leadership encourages employees to take greater responsibilities, last and fourth factor is AI Training and Skill Development, it include

variables like AI training helps employees improve professional skills, Leaders encourage employees to develop AI-related competencies and AI-based learning opportunities improve ability to perform better job.

Table 5 “Reliability Statistics”

“Cronbach's Alpha”	“Number of Items”
.899	14

Total reliability of 14 items that includes variables for “AI-enabled Leadership and Employee Performance” 0.899 (Table 5).

“Table 6 Model Summary”

“Model”	“R”	“R Square”	“Adjusted R Square”	“Std. Error of the Estimate”
1	.859 ^a	.737	.734	.41187
Predictors: (Constant), AI-enabled Decision-making, Employee Engagement and Motivation, AI Training and Skill Development, and Employee Performance				

The adjusted R-squared value is 0.734 with approximately 74% of the variation.

“Table 7 ANOVA”

“Model”		“Sum of Squares”	“df”	“Mean Square”	“F”	“Sig.”
1	“Regression”	173.119	4	43.280	255.131	.000 ^b
	Residual	61.748	364	.170		
	Total	234.867	368			
a. Dependent Variable: Overall impact of AI-enabled Leadership on Employee Performance						
b. Predictors: (Constant), AI-enabled Decision-making, Employee Engagement and Motivation, AI Training and Skill Development, and Employee Performance						

Value under significant column indicates a significant relationship between (AI-enabled Decision-making, Employee Engagement and Motivation, AI Training and Skill Development, and Employee Performance) and employee performance

“Table 8 Coefficients”

“Model”	“Un standardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”
	“B”	“Std. Error”	“Beta”		
(Constant)	3.908	.021		182.260	.000
AI-enabled Decision-making	.347	.021	.435	16.184	.000
Employee Performance	.070	.021	.087	3.238	.001

Employee Engagement and Motivation	.281	.021	.352	13.080	.000
AI Training and Skill Development	.516	.021	.646	24.021	.000
DV: Overall impact of AI-enabled Leadership on Employee Performance					

All the factors AI-enabled Decision-making, Employee Engagement and Motivation, AI Training and Skill Development, and Employee Performance are showing significant impact of AI-enabled Leadership on Employee Performance. Highest impact is shown by AI Training and Skill Development (.646), AI-enabled Decision-making (.435), Employee Engagement and Motivation (.352), and Employee Performance (.087).

Conclusion

It is concluded that AI-enabled leadership has a significant and positive influence on employee performance in Indian organizations. The integration of AI into leadership practices enables managers to make faster and more informed decisions, improve communication, allocate resources effectively, and provide employees with timely support and feedback. AI-based tools also help leaders understand employee needs, identify performance gap, and create more personalised approaches to employee development. The findings indicate that employees are more likely to perform effectively when AI technologies are used as a support mechanism rather than a complete replacement for human leadership. Effective AI-enabled leadership combines technological capabilities with human qualities like empathy, communication, trust, motivation and ethical decision-making. Organizations that provide adequate training and create a supportive environment for AI adoption can improve employee adaptability, productivity, engagement, and overall performance. AI-enabled leadership represents important opportunities for Indian organizations to enhance employee performance and build more agile, innovative and technology-oriented workplaces. The successful implementation of AI depends not only on technological investment but also in responsible leadership, employee participation, ethical practices, and continuous skill development. The factors identifying the impact of AI-enabled Leadership and Employee Performance are AI-enabled Decision-making, Employee Performance, Employee Engagement and Motivation and AI Training and Skill Development. The study concludes that there is significant impact of AI-enabled Leadership on Employee Performance.

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