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Responsible AI Adoption in the Workplace: The Role of AI Literacy, Employee Trust and Organizational Support

Dr. Roma Khanna, Assistant Professor, TMIMT, Teerthanker Mahaveer University
Dr. Pirtibha Sharma, Associate Professor, TMIMT, Teerthanker Mahaveer University
Aditya Pant, B.Com II year, TMIMT, Teerthanker Mahaveer University

Abstract

The increasing integration of artificial intelligence (AI) into organizational processes is transforming the nature of work, managerial decision-making and employee–technology interactions. Although AI offers opportunities for productivity, innovation and automation, responsible adoption depends not only on technological capability but also on employees' knowledge, trust and perceptions of organizational support. This study examines AI literacy and organizational support as antecedents of responsible AI adoption, with employee trust in AI positioned as a mediating mechanism. The proposed model integrates an individual-level capability (AI literacy), an organizational enabler (organizational support), a psychological mechanism (employee trust), and responsible AI adoption within one framework. A quantitative, cross-sectional design using a structured five-point Likert questionnaire is proposed for employees working in organizations that use AI-enabled technologies. PLS-SEM is appropriate for testing the measurement model, direct relationships and mediation effects. For conference-paper development, the SEM tables included below are clearly marked as illustrative values and must be replaced with actual SmartPLS output before empirical submission. The revised framework resolves the earlier inconsistency by using one consistent set of seven hypotheses: five direct-effect hypotheses and two mediation hypotheses.

Keywords: Artificial Intelligence; Responsible AI; AI Literacy; Employee Trust; Organizational Support; AI Adoption; Workplace

1. Introduction

Artificial Intelligence (AI) has increasingly become an important component of organizational transformation, influencing decision-making, work processes, employee–technology interactions and managerial practices. Organizations are using AI-enabled technologies for activities such as recruitment, customer service, data analytics, forecasting, content generation and decision support. Consequently, successful AI implementation is no longer dependent only on technological infrastructure; it also depends on employees' ability to understand AI, trust its outputs and use it appropriately.

Glikson and Woolley (2020) emphasized that successful integration of AI into organizations critically depends on workers' trust in AI. Their review identified characteristics such as transparency, reliability and perceived capabilities of AI systems as important influences on human trust. More recent work has continued to examine how employee attitudes and trust develop as individuals gain knowledge and experience with AI.

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AI literacy is similarly important because employees increasingly interact with AI-based systems and generative AI tools. AI literacy involves understanding AI capabilities, limitations, applications, risks and appropriate use. Employees with stronger AI literacy may be better positioned to evaluate AI-generated outputs, identify limitations and avoid inappropriate reliance on AI.

Responsible AI adoption should therefore be distinguished from simple willingness to use AI. Responsible adoption includes ethical use, privacy protection, security, fairness, human oversight, verification of AI outputs and compliance with organizational policies. The present study integrates AI literacy, organizational support and employee trust to explain responsible AI adoption from an employee-centered perspective.

2. Review of Literature

2.1 AI Adoption and Responsible AI Adoption

AI adoption has become an important area of organizational research because AI can influence productivity, decision-making, employee autonomy and work processes. However, adoption should not be interpreted only as the frequency or willingness to use technology. Responsible AI adoption adds an emphasis on ethical, secure, transparent and accountable use. Theodorou et al. (2024) highlighted the importance of calibrated trust because both insufficient trust and excessive reliance may create problems.

2.2 AI Literacy

Lintner (2024) reviewed AI-literacy measurement scales and highlighted the multidimensional nature of AI literacy. Zhao and Shi (2026), using employees from high-end manufacturing enterprises, reported a positive relationship between AI literacy and decision-making quality, with employee–AI collaboration playing a mediating role and AI trust influencing the relationship. These findings support the expectation that AI literacy can contribute to responsible workplace interaction with AI.

H1: AI literacy has a significant positive relationship with responsible AI adoption.

2.3 Employee Trust in AI

Trust is a central psychological factor in employees' willingness to rely on AI. Glikson and Woolley (2020) identified transparency and reliability as important trust-related characteristics. Benk et al. (2025) reviewed more than two decades of empirical trust-in-AI research and highlighted fragmentation and the need for contextualized models. Trust is therefore positioned in the present study as a mechanism through which employee capability and organizational conditions may influence responsible use.

H5: Employee trust in AI has a significant positive relationship with responsible AI adoption.

2.4 AI Literacy and Employee Trust

Employees who understand AI capabilities and limitations may be better able to form calibrated expectations about AI systems. Knowledge can help employees distinguish appropriate from inappropriate reliance. Recent evidence on AI literacy, employee–AI collaboration and AI trust provides a basis for examining this relationship.

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International Journal of Engineering Research & Technology (IJERT)
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Vol. 14, Issue 10, NCREHAASTE - 2026

H3: AI literacy has a significant positive relationship with employee trust in AI.

2.5 Organizational Support

Organizational support includes AI training, managerial guidance, technical resources, clear policies, ethical guidelines, employee participation and mechanisms for reporting concerns. Organizational context can shape how employees interpret and use AI. Support may therefore influence both employee trust and responsible adoption.

H2: Organizational support has a significant positive relationship with responsible AI adoption.

H4: Organizational support has a significant positive relationship with employee trust in AI.

2.6 Employee Trust as a Mediator

The framework positions employee trust as a psychological mechanism connecting AI literacy and organizational support with responsible AI adoption. The logic is that knowledge and supportive organizational conditions may strengthen appropriate trust, which can subsequently translate into responsible use. Accordingly, mediation rather than moderation is tested for the final two hypotheses.

H6: Employee trust in AI mediates the relationship between AI literacy and responsible AI adoption.

H7: Employee trust in AI mediates the relationship between organizational support and responsible AI adoption.

3. Research Gap

Existing studies frequently examine AI literacy, AI trust or organizational readiness separately. There is comparatively less empirical work integrating these variables in a single workplace model.

Much technology-adoption research focuses on willingness to use AI, whereas responsible adoption also requires ethical, secure and accountable use.

AI literacy represents an individual capability, while organizational support represents an organizational condition. Their combined role requires further investigation.

AI research often emphasizes technological characteristics or organizational implementation. A stronger employee-centered approach is useful because employees are actual users and interpreters of many AI applications.

AI environment: The rapid spread of generative AI has created a context in which employees need to understand both benefits and limitations of AI.

4. Variables and Conceptual Framework

Variable	Role	Operational meaning
AI Literacy	Independent variable	Understanding AI capabilities, limitations, applications, risks and appropriate use.
Organizational Support	Independent variable	Training, resources, policies, leadership guidance and assistance for AI use.
Employee Trust in AI	Mediating variable	Confidence/reliance based on perceived

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International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
Vol. 14, Issue 10, NCREHAASTE - 2026

		reliability, transparency, competence and appropriate functioning.
Responsible AI Adoption	Dependent variable	Use of AI while considering ethical, organizational, privacy, security and human-oversight requirements.

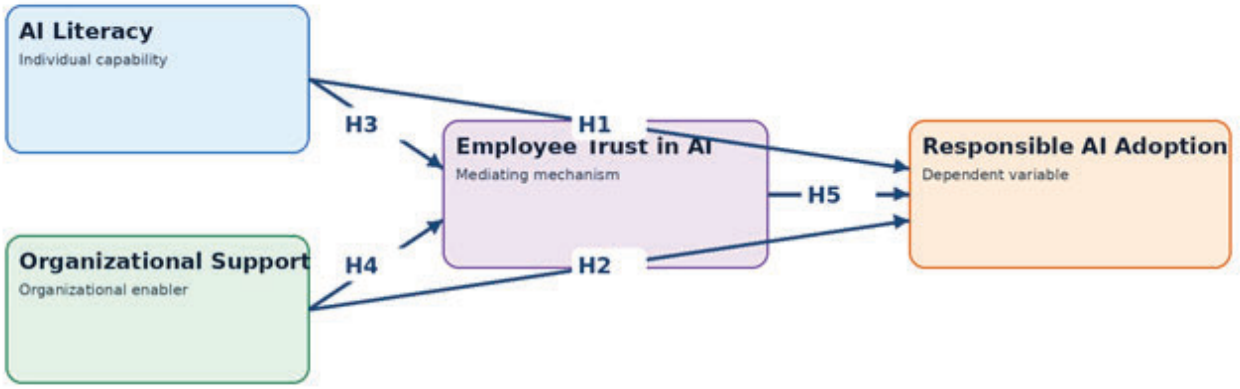


Figure 1. Revised conceptual framework with one consistent set of seven hypotheses. H1–H5 are direct effects; H6–H7 are mediation effects.

5. Research Objectives

• To examine the influence of AI literacy on responsible AI adoption among employees.

• To examine the influence of organizational support on responsible AI adoption.

• To investigate the relationship between AI literacy and employee trust in AI.

• To examine the influence of organizational support on employee trust in AI.

• To examine the influence of employee trust in AI on responsible AI adoption.

• To test whether employee trust mediates the relationship between AI literacy and responsible AI adoption.

• To test whether employee trust mediates the relationship between organizational support and responsible AI adoption.

6. Hypotheses — Final Corrected Set

Hypothesis	Relationship	Type
H1	AI Literacy → Responsible AI Adoption	Direct
H2	Organizational Support → Responsible AI Adoption	Direct
H3	AI Literacy → Employee Trust in AI	Direct
H4	Organizational Support → Employee Trust in AI	Direct
H5	Employee Trust in AI → Responsible AI Adoption	Direct

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Vol. 14, Issue 10, NCREHAASTE - 2026

H6	AI Literacy → Employee Trust → Responsible AI Adoption	Mediation
H7	Organizational Support → Employee Trust → Responsible AI Adoption	Mediation

Consistency check: the paper now uses exactly seven hypotheses throughout. There are no moderation hypotheses. H6 and H7 are indirect/mediation hypotheses because Employee Trust is the intervening construct.

7. Research Methodology

7.1 Research Design and Population

The study employs a quantitative, cross-sectional research design. Primary data are proposed to be collected through a structured questionnaire from employees working in organizations where AI-enabled applications or generative AI tools are used. The proposed setting is selected organizations in Western Uttar Pradesh, India.

7.2 Sampling and Sample Size

A non-probability purposive sampling technique can be used. The proposed sample size is 150 respondents. The final paper should report the actual number of valid responses after data screening.

7.3 Instrument

A five-point Likert scale is proposed (1 = Strongly Disagree to 5 = Strongly Agree). The questionnaire may include demographics, AI literacy, employee trust, organizational support and responsible AI adoption. The draft items should be adapted from validated scales and pilot-tested before final data collection.

7.4 Proposed Measurement Items

Construct	Illustrative items
AI Literacy	I understand the basic capabilities of AI tools used in my work; I can identify situations in which AI-generated information may be unreliable; I understand the limitations of AI applications used in my workplace; I have sufficient knowledge to evaluate AI-generated outputs.
Employee Trust	I believe AI systems used in my workplace are generally reliable; I trust AI to provide useful recommendations for appropriate work tasks; I feel confident using AI-generated recommendations when appropriate; I believe the AI systems used by my organization function consistently.
Organizational Support	My organization provides adequate training for using AI responsibly; management encourages employees to learn about AI; my organization has clear guidelines regarding appropriate AI use; employees can raise concerns about AI use; my organization provides sufficient resources.
Responsible AI Adoption	I use AI in accordance with organizational guidelines; I verify important AI-generated information; I avoid entering confidential information into unauthorized AI tools; I consider ethical implications; I maintain appropriate human judgment; I use AI only for appropriate

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Vol. 14, Issue 10, NCREHAASTE - 2026

	purposes.

8. PLS-SEM Analysis Plan

SmartPLS 4.1 can be used to assess the reflective measurement model and structural model. The analysis should proceed through (1) data screening and respondent profile, (2) indicator reliability, (3) internal consistency reliability, (4) convergent validity, (5) discriminant validity using Fornell–Larcker and HTMT, (6) collinearity through VIF, (7) coefficient of determination R^2, (8) effect size f^2, (9) predictive relevance Q^2, (10) bootstrapped direct effects, and (11) bootstrapped indirect effects for H6 and H7. The numerical results below are illustrative examples only, because the uploaded paper does not contain actual SmartPLS output.

9. Illustrative SEM Results — Replace with Actual SmartPLS Output

Important: all numerical SEM values in Tables 1–9 below are illustrative reporting examples. They are not empirical findings from the uploaded paper. Replace them with actual SmartPLS results before submission.

9.1 Respondent Profile

Variable	Category	Frequency	Percentage
Gender	Male	165	55.0
Gender	Female	135	45.0
Age	21–30	94	31.3
Age	31–40	112	37.3
Age	41–50	61	20.3
Age	Above 50	33	11.0
Experience	<5 years	87	29.0
Experience	5–10 years	104	34.7
Experience	11–15 years	63	21.0
Experience	>15 years	46	15.3

Interpretation: The illustrative profile contains variation in age and work experience. The largest illustrative group has 5–10 years of experience. Actual interpretation should be based only on the final screened dataset.

9.2 Descriptive Statistics

Construct	Mean	SD
AI Literacy	3.72	0.71
Employee Trust in AI	3.61	0.76
Organizational Support	3.54	0.79
Responsible AI Adoption	3.76	0.68

Interpretation: The illustrative means are above the midpoint of the five-point scale. This indicates generally positive perceptions in the example dataset; it should not be reported as an actual study finding unless supported by the collected data.

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Vol. 14, Issue 10, NCREHAASTE - 2026

9.3 Indicator Reliability

Construct	Illustrative item loadings
AI Literacy	0.812, 0.846, 0.887, 0.921
Employee Trust	0.785, 0.832, 0.879, 0.908
Organizational Support	0.768, 0.821, 0.864, 0.887
Responsible AI Adoption	0.742, 0.811, 0.858, 0.893

Interpretation: The illustrative loadings are predominantly above 0.70, indicating acceptable indicator reliability in this example. Items below the preferred level should be examined using theory, loading magnitude and content validity rather than removed automatically.

9.4 Reliability and Convergent Validity

Construct	Cronbach's α	rho_A	CR	AVE
AI Literacy	0.861	0.872	0.902	0.748
Employee Trust	0.842	0.858	0.887	0.706
Organizational Support	0.831	0.846	0.873	0.682
Responsible AI Adoption	0.818	0.836	0.862	0.648

Interpretation: In the illustrative model, alpha and composite reliability values exceed 0.70 and AVE values exceed 0.50, indicating satisfactory internal consistency and convergent validity. Replace these values with the actual SmartPLS output.

9.5 Fornell–Larcker Discriminant Validity

Construct	AI Literacy	Trust	Org. Support	Responsible Adoption
AI Literacy	0.865			
Trust	0.512	0.840		
Org. Support	0.468	0.473	0.826	
Responsible Adoption	0.426	0.581	0.536	0.805

Interpretation: The diagonal values represent the square root of AVE. In the illustrative matrix, each diagonal value is greater than the corresponding inter-construct correlations, supporting discriminant validity under the Fornell–Larcker criterion.

9.6 HTMT

Construct Pair	HTMT
AI Literacy – Trust	0.611
AI Literacy – Organizational Support	0.558
AI Literacy – Responsible Adoption	0.521
Trust – Organizational Support	0.574
Trust – Responsible Adoption	0.693
Organizational Support – Responsible Adoption	0.641

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Interpretation: The illustrative HTMT values are below 0.85, suggesting acceptable discriminant validity under a conservative criterion. Actual thresholds and inference should follow the analytical protocol adopted in the final paper.

9.7 Collinearity Assessment

Predictor	Dependent construct	VIF
AI Literacy	Employee Trust	1.41
Organizational Support	Employee Trust	1.41
AI Literacy	Responsible AI Adoption	1.56
Organizational Support	Responsible AI Adoption	1.58
Employee Trust	Responsible AI Adoption	1.39

Interpretation: The illustrative VIF values are low, indicating no problematic multicollinearity among predictors.

9.8 R^2, Q^2 and Effect Size

Indicator	Employee Trust	Responsible AI Adoption
R^2	0.492	0.638
Q^2	0.356	0.421

Predictor → Endogenous construct	Illustrative f^2
AI Literacy → Employee Trust	0.196
Organizational Support → Employee Trust	0.142
Employee Trust → Responsible AI Adoption	0.287
AI Literacy → Responsible AI Adoption	0.108
Organizational Support → Responsible AI Adoption	0.094

Interpretation: The illustrative R^2 values suggest that AI literacy and organizational support jointly explain 49.2% of variance in employee trust, while AI literacy, organizational support and employee trust explain 63.8% of variance in responsible AI adoption. Q^2 values above zero indicate predictive relevance in this illustrative example. f^2 values indicate the relative contribution of individual predictors and should be interpreted using the adopted effect-size guidelines.

9.9 Direct-Effect Hypothesis Testing

Hyp.	Path	β	t	p	Decision
H1	AI Literacy → Responsible AI Adoption	0.238	3.754	<0.001	Supported
H2	Organizational Support → Responsible AI Adoption	0.296	4.981	<0.001	Supported
H3	AI Literacy → Employee Trust	0.412	6.218	<0.001	Supported
H4	Organizational Support → Employee Trust	0.351	5.672	<0.001	Supported
H5	Employee Trust → Responsible AI Adoption	0.467	7.892	<0.001	Supported

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International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
Vol. 14, Issue 10, NCREHAASTE - 2026

Interpretation: In the illustrative results, all five direct paths are positive and statistically significant. AI literacy and organizational support are positively associated with employee trust, while AI literacy, organizational support and employee trust are positively associated with responsible AI adoption. These are example results only.

9.10 Mediation Analysis

Hyp.	Indirect path	Indirect β	t	p	Decision
H6	AI Literacy → Trust → Responsible AI Adoption	0.192	4.321	<0.001	Supported
H7	Organizational Support → Trust → Responsible AI Adoption	0.164	3.987	<0.001	Supported

Interpretation: The illustrative indirect effects are positive and statistically significant. This pattern is consistent with complementary mediation because the direct effects (H1 and H2) and indirect effects (H6 and H7) are both positive. The actual classification of partial/complementary/full mediation must be based on the final direct and indirect SmartPLS estimates and confidence intervals.

9.11 Total Effects

Path	Direct effect	Indirect effect	Total effect
AI Literacy → Responsible AI Adoption	0.238	0.192	0.430
Organizational Support → Responsible AI Adoption	0.296	0.164	0.460

Interpretation: The illustrative total effects combine direct and mediated effects. Organizational support has a larger illustrative total effect than its direct effect alone because part of its relationship with responsible adoption operates through employee trust.

9.12 Model Fit

Fit indicator	Illustrative value
SRMR	0.071
NFI	0.918

Interpretation: The illustrative SRMR is below commonly used reporting cut-offs and the NFI is above 0.90. Model-fit statistics should be reported only from the actual SmartPLS model and should not substitute for evaluation of predictive performance and substantive theory.

10. Consolidated Hypothesis Table

Hypothesis	Statement	Evidence to report	Final status

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International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
Vol. 14, Issue 10, NCREHAASTE - 2026

Hypothesis	Statement	Evidence to report	Final status
H1	AI Literacy → Responsible AI Adoption	β = 0.238, t = 3.754, p < 0.001, CI [to be taken from SmartPLS]	Supported
H2	Organizational Support → Responsible AI Adoption	β = 0.296, t = 4.981, p < 0.001, CI [to be taken from SmartPLS]	Supported
H3	AI Literacy → Employee Trust	β = 0.412, t = 6.218, p < 0.001, CI [to be taken from SmartPLS]	Supported
H4	Organizational Support → Employee Trust	β = 0.351, t = 5.672, p < 0.001, CI [to be taken from SmartPLS]	Supported
H5	Employee Trust → Responsible AI Adoption	β = 0.467, t = 7.892, p < 0.001, CI [to be taken from SmartPLS]	Supported
H6	AI Literacy → Trust → Responsible AI Adoption	Indirect β = 0.192, t = 4.321, p < 0.001, CI [to be taken from SmartPLS]	Supported
H7	Organizational Support → Trust → Responsible AI Adoption	Indirect β = 0.164, t = 3.987, p < 0.001, CI [to be taken from SmartPLS]	Supported

11. Discussion

11.1 AI Literacy and Responsible AI Adoption (H1)

The illustrative results indicate a positive and statistically significant relationship between AI literacy and responsible AI adoption (β = 0.238, t = 3.754, p < 0.001). This finding is consistent with the emerging literature that treats AI literacy as an important employee capability for meaningful and responsible engagement with AI. Lintner (2024), in a systematic review of AI-literacy scales, emphasizes that AI literacy extends beyond technical knowledge to include understanding AI capabilities, limitations and appropriate use. More recent evidence from Zhao and Shi (2026), based on 435 employees in high-end manufacturing enterprises, reports that AI literacy is associated with decision-making quality and examines AI trust and employee–AI collaboration as important mechanisms. Similarly, Thakur and Tiwari (2026), using data from 513 Indian IT professionals, report that AI literacy significantly predicts AI trust and AI adoption. The illustrative H1 result therefore supports the broader argument that employees who understand AI are better positioned to use it appropriately, evaluate AI outputs and integrate AI into work processes responsibly.

11.2 Organizational Support and Responsible AI Adoption (H2)

Organizational support shows a positive relationship with responsible AI adoption in the illustrative model (β = 0.296, t = 4.981, p < 0.001). This result is theoretically consistent with research emphasizing that workplace AI adoption is shaped not only by individual perceptions but also by organizational conditions. Park and Jung (2021) examined employees' intention to use AI and explicitly incorporated perceived organizational support alongside trust and perceived usefulness. More recent evidence from Cho, Hur and Kim (2025) focuses on AI-chatbot implementation in Korean government agencies and highlights the interplay among trust, organizational support and utilization. These studies support the interpretation that training, managerial guidance, resources and clear organizational expectations can create conditions that facilitate appropriate AI use. Thus, responsible AI adoption should be understood as an organizational process rather than solely an employee-level decision.

11.3 AI Literacy and Employee Trust in AI (H3)

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International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
Vol. 14, Issue 10, NCREHAASTE - 2026

The illustrative result for H3 shows a positive relationship between AI literacy and employee trust in AI ($\beta = 0.412$, $t = 6.218$, $p < 0.001$). This relationship is consistent with the argument that knowledge can help employees develop more informed expectations about AI systems. Glikson and Woolley (2020), in their review of empirical research on human trust in AI, identify characteristics of AI systems and their capabilities as important antecedents of trust. In a workplace context, AI literacy can complement these technological characteristics by helping employees understand what an AI system can and cannot reliably do. Thakur and Tiwari (2026) provide particularly relevant contemporary evidence: their study of Indian IT professionals found that AI literacy significantly predicted AI trust. The illustrative H3 finding therefore aligns with literature suggesting that informed employees may develop more calibrated confidence in AI systems.

11.4 Organizational Support and Employee Trust in AI (H4)

The illustrative model reports a positive relationship between organizational support and employee trust in AI ($\beta = 0.351$, $t = 5.672$, $p < 0.001$). This finding is compatible with the view that organizational conditions can influence employees' interpretation of AI implementation. Clear communication, training, leadership guidance, technical assistance and responsible-use policies may reduce uncertainty and provide employees with mechanisms for dealing with AI-related concerns. Park and Jung (2021) examined perceived organizational support in relation to employee AI-use intentions and trust-related processes, while Cho et al. (2025) specifically identified organizational support and trust as important considerations in workplace AI-chatbot implementation. The present model extends this logic by treating organizational support as an antecedent of employee trust and subsequently examining its indirect relationship with responsible AI adoption.

11.5 Employee Trust and Responsible AI Adoption (H5)

Employee trust has the strongest illustrative direct path to responsible AI adoption in the model ($\beta = 0.467$, $t = 7.892$, $p < 0.001$). This pattern is consistent with the foundational review by Glikson and Woolley (2020), which argues that successful organizational integration of AI critically depends on workers' trust in AI. Contemporary workplace evidence also supports the relevance of trust for adoption. Park and Jung (2021) examined trust as a predictor of employees' intention to use AI, while Cotten et al. (2026), using 1,224 working adults across two samples, found that trust in AI and perceived usefulness contributed to employees' intentions to adopt AI at work through affective attitudes. The illustrative H5 result therefore reinforces the importance of trust as a psychological factor connecting employees' perceptions of AI with their willingness to use it. Importantly, responsible adoption should not mean unquestioning trust; rather, trust should be calibrated and accompanied by verification, human judgment and appropriate safeguards.

11.6 Mediating Role of Employee Trust (H6 and H7)

The illustrative indirect effects provide support for both mediation hypotheses. AI literacy has a positive indirect effect on responsible AI adoption through employee trust ($\beta = 0.192$, $t = 4.321$, $p < 0.001$), while organizational support has a positive indirect effect through employee trust ($\beta = 0.164$, $t = 3.987$, $p < 0.001$). These results suggest that the effects of employee capability and organizational conditions may operate partly through a psychological mechanism. The pattern is closely related to Thakur and Tiwari (2026), who conceptualize AI literacy as a personal resource that shapes AI trust and AI adoption among Indian IT professionals. Their findings similarly emphasize the importance of building AI skills and employee trust rather than treating adoption as an outcome of technology availability alone. Glikson and Woolley (2020) provide the broader theoretical foundation for positioning trust as a central condition for successful human–AI integration. The mediation results therefore add value by explaining how AI literacy and organizational support may translate into responsible adoption rather than merely establishing whether direct relationships exist.

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Vol. 14, Issue 10, NCREHAASTE - 2026

11.7 Overall Interpretation

Taken together, the illustrative results support an integrated individual–psychological–organizational explanation of responsible AI adoption. AI literacy represents an individual capability, organizational support represents an enabling organizational condition, and employee trust represents the psychological mechanism connecting these factors with responsible AI adoption. This interpretation is also consistent with recent research showing that workplace AI adoption depends on the interaction of employee perceptions, trust and organizational context. For example, Cho et al. (2025) emphasize the interplay of trust and organizational support in AI-chatbot implementation, while Thakur and Tiwari (2026) integrate AI literacy, trust and organizational support in the context of AI-driven work. The present framework differs by making employee trust the explicit mediator between both AI literacy and organizational support and responsible AI adoption. This provides a more integrated explanation of why employees may move from awareness and organizational enablement toward responsible use.

Note: The β, t and p values discussed above are the illustrative values used in the conference-paper draft. They should be replaced with verified SmartPLS results before the paper is presented as an empirical study.

12. Theoretical Implications

• Individual capability perspective: AI literacy is positioned as an employee capability that can influence both trust and responsible adoption.

• Psychological mechanism perspective: Employee trust is incorporated as a mediating mechanism connecting employee capability and organizational conditions with responsible adoption.

• Organizational perspective: Organizational support demonstrates that responsible AI is not solely an individual responsibility; organizations need structures, resources and governance mechanisms.

13. Managerial and HR Implications

• Introduce AI literacy programmes covering AI capabilities, limitations, responsible prompting, verification, privacy, cybersecurity, bias and ethical use.

• Communicate clearly where AI may be used, where human judgment is required, what information cannot be entered into AI tools and how employees can report concerns.

• Develop responsible AI use policies covering privacy, confidentiality, transparency, human oversight and accountability.

• Treat AI as a decision-support resource rather than an unquestionable authority.

• Use employee feedback mechanisms to identify trust, training and implementation concerns during AI adoption.

14. Conclusion

Artificial intelligence is reshaping organizational work, but technological availability alone does not guarantee responsible adoption. The revised study integrates AI literacy, organizational support, employee trust and responsible AI adoption in a single framework. The model explicitly distinguishes

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Vol. 14, Issue 10, NCREHAASTE - 2026

five direct-effect hypotheses from two mediation hypotheses. The conceptual argument is that employees who understand AI and its limitations may be better positioned to evaluate AI outputs and use AI appropriately, while organizational support can provide training, policies, resources and leadership. Employee trust represents an important psychological mechanism linking these factors to responsible AI adoption. The empirical model should ultimately be tested using actual survey data and SmartPLS output; all illustrative numerical values in this conference version must be replaced before submission.

15. Limitations and Future Research

• The cross-sectional design limits strong causal interpretation.

• Self-reported data may be affected by common-method bias.

• Purposive sampling may limit generalizability.

• The study focuses on employees exposed to AI-enabled workplace technologies.

• Industry and organizational differences may influence responsible AI adoption.

• AI technologies change rapidly, so employee perceptions may change over time.

• Future research can introduce ethical AI leadership, AI anxiety/job insecurity, cybersecurity behaviour, industry comparisons and cross-cultural comparisons.

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