Interconnected Worlds: Human-AI Collaboration in International Technology Transfer for Industry 5.0

Arezoo Zamany[1], Abbas Khamseh[2*], Sayedjavad Iranbanfard[3]

[1] Department of Technology Management, Faculty of Management and Economics, Science and Research Branch, Islamic Azad University, Tehran, Iran
[2] Department of Industrial Management, Karaj Branch, Islamic Azad University, Karaj, Iran
[3] Department of Management, Shiraz Branch, Islamic Azad University, Shiraz, Iran

* Corresponding author email address: abbas.khamseh@kiau.ac.ir

1.   Round 1

1.1   Reviewer 1

Reviewer:

In the Introduction (paragraph 2), the statement "Striking the right balance by integrating human factors like teamwork, communication, and decision-making..." would benefit from citing more empirical studies demonstrating the effectiveness of such integration in existing Industry 5.0 initiatives.

In the Introduction (paragraph 5), the sentence "However, there is a significant research gap in the field of international technology transfer..." could be strengthened by referencing recent systematic reviews that also highlight this gap, to situate your study within the broader literature.

In the Methods and Materials (paragraph 5), you mention that "weekly meetings were held to evaluate team member reports." It would be beneficial to elaborate on how disagreements were resolved among team members to strengthen the credibility of interpretive validity.

In discussing "technology transfer processes" (Discussion), the statement "Strategic planning, timely and optimal implementation..." could be supported by citing real-world case studies illustrating these stages.

In the paragraph on "socio-cultural context" (Discussion), you mention respecting cultural values and norms; it would be valuable to also address potential tensions or trade-offs between local adaptation and global standardization in technology transfer.

In the "Organizational factors" section (Discussion), the statement "Organizational factors... provide a conducive environment" (paragraph 6) would benefit from discussing how different organizational structures (e.g., centralized vs. decentralized) affect technology transfer outcomes.

In the "Performance and Impact" paragraph, the discussion of customer satisfaction could be expanded by suggesting methods for measuring satisfaction and linking them to technology transfer evaluation frameworks.

In the Recommendations (paragraph 2), you advise developing communication, problem-solving, and flexibility skills; this could be strengthened by proposing specific training approaches or examples from the literature.

Author revised the manuscript and uploaded the updated document.

1.2   *Reviewer 2*

Reviewer:

In the Introduction, while you describe the novelty of your integrated model (paragraph 6), it would be helpful to specify in more detail exactly how your framework operationalizes the interplay between AI and human factors compared to prior models.

The Methods and Materials section describes using "meta-synthesis" (paragraph 2), but the description lacks information about which coding framework or software (besides EndNote) was used for qualitative data analysis; adding this would improve transparency and replicability.

In the Methods and Materials (paragraph 3), you mention excluding 171 articles but do not provide a breakdown of exclusion reasons; including a summary table of these reasons would enhance methodological rigor.

In the Findings and Results section, Table 1 is introduced (paragraph 2) without clear criteria describing how "indicators" were distinguished from "components"; defining these terms explicitly would improve clarity.

The Discussion and Conclusion section (paragraph 3) discusses human expertise components. However, you might further clarify how exactly each identified component (e.g., problem-solving ability) relates to the successful stages of technology transfer.

In the paragraph on "AI capabilities" (Discussion), while you identify important components, it would strengthen your argument to also discuss known limitations or challenges of these capabilities in practice, with references.

The paragraph on "dynamics of human-AI collaboration" (Discussion) might benefit from referencing psychological or sociotechnical theories of trust-building, to ground the discussion more theoretically.

Author revised the manuscript and uploaded the updated document.

2.   **Revised**

Editor's decision after revisions: Accepted.
Editor in Chief's decision: Accepted.