

Feasibility Study of Using Artificial Intelligence in Tourism Agencies and Its Impact on Human Resource Performance

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Submitted: 2026, Jun 15; **Accepted:** 2026, Aug 07; **Published:** 2026, Aug 18

Citation: Mohammadi, P. (2026). Feasibility Study of Using Artificial Intelligence in Tourism Agencies and Its Impact on Human Resource Performance. *World J Tourism Mgm*, 2(2), 01-06.

Abstract

Artificial intelligence (AI) has now penetrated all aspects of human life and various industries. Technology has always played a key role in tourism and hospitality (T&H). Although various aspects of AI application in the tourism industry have been studied so far, its impact on human resources (HR) and the workforce has not been well explored. The purpose of this research is to investigate the feasibility of using AI in tourism and travel agencies and its effects on HR performance. At first, interviews were conducted with people working in three tourism agencies located in two tourist-friendly provinces of Iran. Twelve semi-structured interviews were conducted with directors, managers, and employees. The findings were then qualitatively analyzed and categorized. The results showed that all employees had embraced the digitalization of tourism and were aware of its benefits, including 24/7 service and data analysis. There were many different opinions and sometimes concerns about job security and organizational roles. Despite the serious challenges of implementing AI in agencies, such as cost, infrastructure, and workforce training; most people welcomed it. We suggest an AI-human combined system to improve the performance of HR in tourism agencies.

Keywords: Artificial Intelligence (AI), Tourism and Hospitality (T&H), Human Resource (HR), Feasibility Study, Qualitative Analysis

1. Introduction

Back in the early 19th century, as railways began to take off, the system of post-coaches was already playing a vital role in sharing news, transporting people, and moving goods. The revolution in communications is still unfolding [1]. With the introduction of technologies like telephones and fax machines, travel agencies were able to connect with their clients and suppliers much more efficiently, marking a significant leap in industrial operational efficiency [2]. In the late 1990s, the advent of the Internet and the World Wide Web transformed communication, enabling organizations to present their products and services on a global scale through multimedia interfaces [3]. As the internet evolved swiftly, along with advancements in mobile technology, cloud computing, and artificial intelligence, the service models and operational procedures within the tourism sector underwent significant transformations.

The tourism industry and consumer behavior changed a lot at the start of the 21st century with the arrival of Booking.com, Expedia, and Airbnb [4]. Websites with higher quality travel content make users feel more satisfied and useful, so more satisfied customers [5]. Information and communication technologies have quickly

entered consumers' daily life, making both positive and negative spillover impacts [6]. Innovations diminished reaction times, encouraged reservations, and fortified universal communication, in this manner moving forward operational productivity and benefit conveyance within the T&H industry [7]. The 2010s was the decade of smartphones and social media, where travelers could plan and share their trips instantly [8]. With technology advancing virtual communication, many people found out that online was not only more effective but also more comfortable than meeting in person [9].

In travel and tourism, solution-based or platform-based apparatuses such as recommender frameworks and chatbots have been created to supply personalized, location-based, contextaware data administrations and client back administrations. AI and mechanical autonomy are quickly changing the way businesses work and lock in with their clients, whereas they too show numerous openings and challenges in esteem creation, industry structure, and operations [10]. We're diving into the fascinating world of AI, big data, and the incredible applications they bring to the table. Lately, there's been a lot of buzz in the media about these advancements, especially when it comes to privacy and ethical

concerns [11]. It's important to recognize that there's a significant group of "technophobes" out there—people who are uneasy about robots, AI, and technology they don't fully understand. These individuals often report higher levels of anxiety and worry about job security and financial instability. As we see advancements in robotics and AI, the fear of job loss due to automation is becoming a serious topic of discussion [12,13].

Technological advancements have profoundly altered the dynamics of the workforce and the nature of job roles [14]. Numerous routine functions within human resources have been automated through artificial intelligence, resulting in possible reductions in workforce size [15]. A study examining employees' views on robots in the hospitality sector revealed that the integration of service robots (such as chatbots and automated systems) has notably influenced employees' feelings regarding job security and has led to changes in job responsibilities, suggesting a transformation in required skills and job frameworks [16]. Since, realizing innovations require human oversight the sort of abilities required has changed, requiring persistent upskilling and computerized adjustment [17,18]. HR is required to supply a combination of advanced promoting aptitudes, social media responsiveness, and client benefit at a much higher level [19].

HR management systems have to be more computerized, and forms such as enlistment, preparing, and execution assessment have to be more data- and software-based [20]. AI applications have taken off in research since 2015, but they're still pretty new in the world of tourism and hospitality research [21]. There are some big hurdles to overcome, like needing better tech support, addressing privacy issues, and managing high costs, all of which are crucial for advancing smart tourism [22]. As we move through the 2020s, AI is making a huge impact on the tourism industry, changing the way businesses operate, market themselves, and connect with customers [23]. This research was designed to study the feasibility of using AI systems or AI-based platforms in travel and tourism agencies. It also investigated the probable effects of AI on the performance of HR; and the tendency of managers and staff to use AI in their work.

2. Methodology

This research was done practically with a qualitative approach. The research community included specialists and employees working in three different tourism agencies in Isfahan and Mazandaran provinces. These two provinces are among the most tourist-friendly provinces in Iran. The Sampling was targeted and conducted among people with relevant experience and knowledge in T&H. In total, 12 in-depth interviews were conducted through a semi-structured method. The interview questions were formulated in alignment with the research objectives, and their validity was corroborated by multiple experts in the domains of tourism and information technology. Thematic analysis was employed to identify key concepts and organize the findings. To enhance the accuracy and validity of the findings, the participant reviewed method (member check) and simultaneous data review were done by two researchers.

At all stages of the research, the principles of research ethics were observed, counting the informed consent of the participants, the secrecy of data, and the plausibility of withdrawal at each stage. Question generation could be an idea one might investigate within the theory of inquiry and effective inquiry produces new knowledge [24]. AI applications have not been adequately inspected in all subjects such as tourism. In designing the following questions for the interview, we were influenced by articles on topics related to AI, tourism, and HR [25-27].

Questions of interviews:

- i. What are the main activities currently being carried out in your agency? (Such as ticket booking, travel planning, customer support, etc.)
- ii. Are you familiar with the concept of AI and its applications in tourism? Please explain.
- iii. What problems or challenges do you have in your work processes that you think AI can be useful for?
- iv. Do you use certain digital tools or software in your daily work? If the answer is yes, what role do these tools play in improving your performance?
- v. Have you ever used AI-based tools such as chatbots, travel suggestion systems, or data analysis tools? If so, how has your experience of using them been?
- vi. How do you think the use of AI will affect the roles and responsibilities of agency employees?
- vii. How do you think AI can help employees perform their duties? (Such as reducing workload, increasing accuracy, improving customer experience, etc.)
- viii. Do you believe that employees need to learn new skills to work with AI? What skills do you think are most important?
- ix. Do you think AI can do some human tasks? If the answer is yes, which tasks are included?
- x. Do you have concerns about the impact of AI on employee job security?
- xi. What challenges may be on the path of implementing AI in your agency?
- xii. What are the most important benefits of using AI in tourism agencies? (Such as increased speed, reduction in costs, improved customer experience, etc.)
- xiii. What are the obstacles to implementing AI in tourism agencies? (Such as initial costs, employee resistance, staff training, etc.)
- xiv. Do you think using AI can reduce human interaction with customers?
- xv. If AI is going to be implemented in your agency, what are your suggestions to improve the processes?
- xvi. What changes AI will bring to the tourism industry soon?
- xvii. How do you predict the future of AI in tourism agencies? Do you think this technology can be considered as a competitive advantage?

3. Findings

There was a proximity in many of the interviewee's responses. The data analysis revealed that AI is emerging as an inevitable transformation within the tourism industry. The different opinions and the repeated statements are presented in two separate parts,

respectively.

3.1. The Specific Comments of Each Interviewee

- Interviewee No.1 (employee): The role of manpower remains key and indelible, and AI is more likely to be an auxiliary tool. A positive attitude to this technology and readiness to learn new skills will be the key to success in this direction.
- Interviewee No.2 (employee): Involving employees in the process of implementing AI according to the remedy of their needs will be the key to success in exploiting this technology. Agencies that employ AI earlier will gain a significant competitive advantage.
- Interviewee No.3 (director): I believe that AI has not yet been introduced in the Iranian tourism industry practically. The future of this technology in Iran's tourism industry will depend on reducing costs, personalizing tools, and increasing employee skills.
- Interviewee No.4 (tour sales manager): There are some operational challenges in updating information and responding to customers due to my role in the domestic tour sales counter. I see AI as an efficient tool for 24-hour response, increasing response speed, and managing feedback. There are many concerns about reducing the role of manpower and job security, but overall, AI has a positive perspective on T&H; considering it an opportunity to increase customer satisfaction.
- Interviewee No.5 (director): AI implementation will be expensive for small and medium-sized agencies. The successful future of this technology will depend on cost reduction and the gradually targeted use of smart tools. Also, maintaining human contact with customers remains a priority and needs to be addressed alongside automation.
- Interviewee No.6 (employee): I consider AI as a transformative tool for the tourism industry that can play an important role in customer data analysis and targeted tour design. AI can replace some human tasks, but at the same time create new opportunities for employee growth and promotion and even new job creation.
- Interviewee No.7 (employee): The use of AI highlights a variety of applications, including travel package design, natural language processing, and customer behavior analysis. However, maintaining the role of manpower in decision-making and counseling is considered an important challenge. My overall attitude towards the future of AI is optimistic, but entering into this field needs preparation and consciousness.
- Interviewee No.8 (director): AI not only automates certain tasks but can also create new job opportunities and direct the role of employees to more valuable areas apart from communicating with customers and problem-solving. Therefore, a combination and gradual approach to the adoption and use of AI is recommended.
- Interviewee No.9 (public relations officer): AI can improve content creation in tourism agencies. Success in implementing this technology depends on the management of organizational change, maintaining a balance between automation and human communication, and the development of integrated systems.
- Interviewee No.10 (executive deputy): AI implementation

depends on enhancing the combined skills of employees. It also needs management sustainability to resolve or remove technical and human barriers. AI can eliminate or simplify certain tasks, but the role of manpower in areas such as customer engagement and solid ethical management remains as before.

- Interviewee No.11 (employee): AI has the ability for 24/7 responsiveness and increase customer satisfaction in tourism agencies.
- Interviewee No.12 (employee): AI is not a threat to job security, but provides opportunities to improve service quality and create competitive advantage.

3.2. The common statements of the interviewees

The common and repeated results of interviews were categorized into several key thematic areas. A similar result from other studies was mentioned for every category that validates the findings of this research.

- Benefits of AI: Participants highlighted increased speed and precision in service delivery, reduced operational costs, tailored customer experiences, and enhanced decision-making through data analysis. AI empowers agencies to offer high-quality services to their clients around the clock.
- As has said; an AI agent may be able to decrease company expenses, increase financial turnover, and provide services 24/7 [27]. It could also respond faster and handle larger data volumes than conventional customer services.
- Challenges and implementation barriers: The most significant challenges identified included high initial investment costs, the necessity for workforce training and organizational culture change, resistance to innovation among staff, and a decrease in human interaction. Concerns regarding job security were also raised by some participants [28].
- An experience in Indonesia showed implementing virtual reality (VR) and augmented reality (AR) technologies assists travel agencies promote tourist destinations more. Nevertheless, several challenges persist, such as the high cost of developing VR and AR content, regular content updates, and the limited personnel skills needed to operate these technologies [29].
- Changes in employee roles and responsibilities: AI has reduced the volume of monotonous assignments and expanded the request for unused ability procurement. In any case, workers proceed to play a crucial part in client meetings and bolster, recommending that the human figure remains basic within the tourism industry.
- AI can make alluring buyer characteristics counting discernment, belief, and inspiration through human-AI intuitive. Additionally, compare choices through in-depth item data, increment post-purchase interaction, productive customer-brand connections, etc. These all offer assistance to the client to make superior choices [30].
- Shared and divergent patterns: A prevalent theme among the responses was the acknowledgment of AI as an inevitable transformation, alongside the recognition that training and sustaining human interaction is crucial. The differences in

viewpoints mainly arose from disparities in access to AI tools and concerns regarding job security. Participants with more extensive practical experience recognized a greater number of opportunities for AI integration, whereas those with limited financial or educational resources reported reduced exposure.

- By possessing the capability to gather and analyze such real-time feedback, HR departments can more effectively assess employee sentiment and morale. Nevertheless, organizations must ensure that these technologies do not supplant the essential human interactions necessary for fostering a strong organizational culture [31].
- Interpretation of results and possible explanations: The similarities in reactions reflected a shared understanding of computerized change and the need to adjust to developing technologies. Varieties were to a great extent inferable to

person, organizational, and natural components such as asset accessibility, individual encounter, and job position.

- The integration of AI has driven expanded visitor encounters, less complex operations, and more compelling income administration procedures. Be that as it may, the challenges of appropriation remained, counting innovative obstructions and concerns approximately information protection [32].

3.3. Summary of the Analysis

Various aspects of using AI in tourism agencies based on the analyzed findings are listed in Table I. The interviewees had some similar responses and some different opinions. The findings aligned with previous studies in the areas of tourism and management, which emphasize the significance of training, cultural readiness, and financial support for the fruitful implementation of AI systems.

Aspect	Similarities	Differences
Understanding of AI application	Most considered AI useful for rapid response, data analysis, and destination recommendation.	Some had precise scientific definitions, others had only heard about it.
Benefits for agencies	All mentioned increased speed, accuracy, and customer satisfaction.	Managers had a deeper understanding of the benefits.
Implementation challenges	Cost, learning, and infrastructure were named as barriers in all responses.	Some saw only cost as a barrier; others saw training and awarenessbuilding.
The perspective of the future	Everyone anticipated AI would change tourism's future.	Some consider it as a threat, others as an opportunity.
Human role alongside AI	No one saw AI as a complete replacement for the human workforce.	Differences in level of trust in technology and job position.
Job security	There were concerns about layoffs.	Executive staff are more worried than managers.
Familiarity with AI	Most people had limited information about AI.	Experienced managers were more familiar than junior employees.
Level of use of tools	Only some individuals had practical experience with AI tools.	Employees who have used ChatGPT and Copilot had a better experience.
Attitude toward human interaction	Reduction in human interaction was seen as concerning but manageable.	Customer-facing individuals were more concerned.
Job responsibility	Both managers and employees would participate in work.	Views were dependent on experience, expertise, and position.

Table 1: Similarities and Differences in Attitude Towards Various Factors

4. Conclusion

Research findings from tourism agencies in Isfahan and Mazandaran indicated that AI represents an unavoidable transformation, offering advantages such as enhanced speed, improved accuracy, cost reduction, and personalized service. Nevertheless, challenges were identified, including infrastructure costs, the necessity for training, and the resilience of employees. The findings revealed that AI alleviates the repetitive tasks faced by employees and managers; however, the human factor in counseling and support remains crucial.

Common trends in the responses have accepted the digital transformation, highlighting the significance of education and maintaining human interaction. The variations in perspectives were primarily influenced by access to AI tools and concerns regarding job security. Our analysis showed that the best scenario is to implement a system consisting of humans and AI to create a good experience for customers. Overall, by addressing key issues

such as infrastructure and staff training, implementing AI in T&H is feasible and efficient.

References

1. Behringer, W. (2006). Communications revolutions: A historiographical concept. *German History*, 24(3), 333-374.
2. Rodrigues, V., Breda, Z., & Rodrigues, C. (2024). The implications of industry 4.0 for the tourism sector: *A systematic literature review. Heliyon*, 10(11).
3. Buhalis, D. (2000). Tourism and information technologies: Past, present and future. *Tourism recreation research*, 25(1), 41-58.
4. Pohuda, N. V. (2023). The influence of OTA channels on the tourism industry.
5. Kim, S. Y., & Lim, Y. J. (2001). Consumers' perceived importance of and satisfaction with internet shopping. *Electronic Markets*, 11(3), 148-154.

6. MacKay, K., & Vogt, C. (2012). Information technology in everyday and vacation contexts. *Annals of Tourism Research*, 39(3), 1380-1401.
7. Prados-Castillo, J. F., Guaita Martinez, J. M., Zielińska, A., & Gorgues Comas, D. (2023). A review of blockchain technology adoption in the tourism industry from a sustainability perspective. *Journal of Theoretical and Applied Electronic Commerce Research*, 18(2), 814-830.
8. Anaya, G. J. (2020). Understanding Tourism Moments and the Impact of Smartphone Documentation (Doctoral dissertation, Purdue University).
9. Tarlow, P. (2023). Rethinking tourism: where is it going and how will it impact people and planet? A personal perspective. *Worldwide Hospitality and Tourism Themes*, 15(6), 617-624.
10. Koo, C., Xiang, Z., Gretzel, U., & Sigala, M. (2021). Artificial intelligence (AI) and robotics in travel, hospitality and leisure. *Electronic markets*, 31(3), 473-476.
11. Stahl, B. C., & Wright, D. (2018). Ethics and privacy in AI and big data: Implementing responsible research and innovation. *IEEE Security & Privacy*, 16(3), 26-33.
12. McClure, P. K. (2018). "You're fired," says the robot: The rise of automation in the workplace, technophobes, and fears of unemployment. *Social Science Computer Review*, 36(2), 139-156.
13. Babaee, A., & Shank, D. B. (2025). Trust and procedural justice mediate the effects of AI hiring on organizational attraction and intent to apply. *Discover Artificial Intelligence*, 5(1), 375.
14. Ercik, C., & Kardaş, K. (2024). Reflections of digital technologies on human resources management in the tourism sector. *Worldwide Hospitality and Tourism Themes*, 16(5), 646-663.
15. Sundari, S., Silalahi, V. A. J. M., Wardani, F. P., Siahaan, R. S., Sacha, S., Krismayanti, Y., & Anjarsari, N. (2024). Artificial intelligence (AI) and automation in human resources: Shifting the focus from routine tasks to strategic initiatives for improved employee engagement. *East Asian Journal of Multidisciplinary Research*, 3(10), 4983-4996.
16. Parvez, M. O., Öztüren, A., Cobanoglu, C., Arasli, H., & Eluwole, K. K. (2022). Employees' perception of robots and robot-induced unemployment in hospitality industry under COVID-19 pandemic. *International Journal of Hospitality Management*, 107, 103336.
17. Dwivedi, D. P. K., Radhakrishnan, D. V., Kumar, S., Jayalakshmi, R., & Marar, S. S. (2024). The role of artificial intelligence in improving human resource management practices in marketing companies. *Educational Administration: Theory and Practice*, 30(4).
18. Surbakti, A., & Sinurat, E. (2025). Strategies for employee competency development in the era of digital transformation: An innovative human resource management approach. *Journal of Information Systems Engineering and Management*, 10(49), 563-575.
19. Carlisle, S., Ivanov, S., & Dijkmans, C. (2023). The digital skills divide: evidence from the European tourism industry. *Journal of tourism futures*, 9(2), 240-266.
20. Ngene, G., Egwuagu, U., & Nnamani, D. (2024). Human resource management and digitalization in 21st century. *J Policy Dev Stud*, 17(2), 18-35.
21. Kong, H., Wang, K., Qiu, X., Cheung, C., & Bu, N. (2023). 30 years of artificial intelligence (AI) research relating to the hospitality and tourism industry. *International Journal of Contemporary Hospitality Management*, 35(6), 2157-2177.
22. Abdullah, O., Khan, M. S., Shalki, Tiwari, A., Shilpi, & Shikha. (2024). Smart Tourism Leveraging Technological Advancements in AI and Machine Learning for Enhanced Hospitality Services. 2024 4th International Conference on Technological Advancements in Computational Sciences (ICTACS), 1160-1166.
23. Kim, H., So, K. K. F., Shin, S., & Li, J. (2025). Artificial intelligence in hospitality and tourism: Insights from industry practices, research literature, and expert opinions. *Journal of Hospitality & Tourism Research*, 49(2), 366-385.
24. Kantar, N. (2023). on Artificial Intelligence Epistemology with Contemporary Epistemologist Robert Audi. *Felsefe Dünyası*, (78), 305-314.
25. Huang, A., Chao, Y., de la Mora Velasco, E., Bilgihan, A., & Wei, W. (2022). When artificial intelligence meets the hospitality and tourism industry: an assessment framework to inform theory and management. *Journal of Hospitality and Tourism Insights*, 5(5), 1080-1100.
26. Çolak, O. (2023). The impact of artificial intelligence on the employment structure of the tourism industry: An interview with ChatGPT. *İktisadi İdari ve Siyasal Araştırmalar Dergisi (İKTİSAD)*, 8(22), 919-939.
27. Edén, A. S., Sandlund, P., Faraon, M., & Rönkkö, K. (2024). VoiceBack: Design of Artificial Intelligence-Driven Voice-Based Feedback System for Customer-Agency Communication in Online Travel Services. *Information*, 15(8), 468.
28. Babaee, A., Shank, D. B., Canfield, C., Hall, J. G., Lentine, K. L., Randall, H., & Schnitzler, M. (2026). Five tensions of artificial intelligence adoption for organ allocation: Applying the technology-organization-environment framework. *Digital Health*, 12, 20552076261425344.
29. Rahmad, M. (2024, October). Analysis of the adoption level and impact of virtual reality (VR) and augmented reality (AR) technology implementation in travel agencies in Indonesia. In *International Proceeding Global Sustainable Tourism Conference*.
30. Seth, Nitin & John, Surej. (2024). The Role of AI in Enhancing Customer Experience: An Exploratory Analysis. Conference: *Australia New Zealand Marketing Academy (ANZMAC) Conference*.
31. Khurana, Poonam & Thakral, Shruti & Grover, Dhruv & Kapoor, Renuka. (2025). *Human Resource Management in the Era of AI*.
32. Bilal, K., Bhat, S. A., Raina, D. I., Abdulla, P., Hussain, Z., & Azizah, N. (2025). *The Transformation of Personalisation in Hospitality Through the Implementation of Artificial Intelligence (AI)*.

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