

Science Mapping of Artificial Intelligence Adoption in the Hospitality and Tourism Industry

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ABSTRACT

Artificial intelligence (AI) technology has emerged as a promising solution across various service industries, including tourism and hospitality. It comprises the latest technology, including machine learning, robotics, data analysis and processing of natural languages, which are created and designed to replicate human-like intelligence and behaviour. (Li et al., 2021) emphasises its potential to enhance customer experience value and shape behaviour intentions. AI tools improve guest experiences, balance the business process, and boost profit at the end of the year. AI is used in multiple facets of the hospitality Industry, from chatbots handling customer inquiries to complex coding forecasting room demand. The adaptation of AI in tourism is directed by the ever-growing expectations of guests and the need for businesses to stay competitive in the fast-changing market. (Rather, 2024) highlighted how generative AI presents essential opportunities in e-tourism, offering innovative ways to engage travellers. In the hospitality realm, (Hussein Al-shami et al., 2022) identified key drivers like AI infrastructure flexibility, strategic alignment, management, and skills as crucial for enhancing performance. Moreover, he outlined four indicators—quality, cost, market share, and customer satisfaction—that reflect AI's influence on hotels. This multifaceted perspective underscores the complex interplay between AI technology and service industries, balancing opportunities for innovation with challenges in workforce management and adaptation.

Keywords: Artificial Intelligence; Robotics; Hospitality; Tourism; Science mapping.