

**XXI SIM Conference, Università IULM, Milano, 17 -18 Ottobre 2024**

**Brands and Purpose in a changing era**

**AI-Driven Travel Planning: Factors Shaping Traveler's Adoption of Chatbot  
Technology**

**Attia Abdelkader Ali**

University of Alicante, Spain

[Aaaa16@alu.ua.es](mailto:Aaaa16@alu.ua.es)

**Luigi Zingone**

Università degli Studi e Campus, Italy

[luigi.zingone@uniecampus.it](mailto:luigi.zingone@uniecampus.it)

**Abstract:**

Technology has a transformative impact on the travel and tourism business. Emerging technologies like chatbots, artificial intelligence (AI), and robotics are transforming the operations of the tourism business. As a result, AI-driven solutions are being used for direct customer contact in a variety of frontline services in addition to starting service and process automation. Hence, AI chatbots have become so seamlessly connected to online experiences that users are unable to discern whether they are interacting with a chatbot or a human. Travel chatbots provide advantages for both travelers and service providers. Therefore, customers can utilize chatbots for trips planning, booking, and travel assistance, while companies can profit from enhanced engagement, income opportunities, and competitive edge.

The study's objective is to determine the elements that influence the adoption of AI chatbots and their role in enhancing consumer engagement and experiences in planning trips. The study is based on the S-O-R theory, which examines the impact of several components of the Unified Theory of Technology Acceptance and Use (UTAUT) and its extension, UTAUT2, on travelers. The study seeks to determine how four factors - perceived ease of use, perceived intelligence, anthropomorphism, and facilitating conditions - influence AI intentions.

These factors also impact attitudes towards AI-chatbots, which in turn affect adoption intentions and actual usage of AI-chatbots. A total of 120 participants were surveyed via an online questionnaire, from which data was gathered by the researchers. The conceptual model underwent empirical testing by the utilization of the structural equation modelling technique, namely smart PLS4. Based on the findings, the S-O-R theoretical framework is appropriate for assessing the objectives of adopting chatbots. Furthermore, the structural model provided support for the study hypotheses, confirming the identified directions of significant influences. Based on the results, the predictors of chatbot adoption intention are perceived ease of use, perceived intelligence, anthropomorphism, and facilitating conditions. Furthermore, the attitude toward AI chatbots has a favorable impact on travelers' intentions to adopt AI chatbots. Moreover, the adoption intents of AI chatbots directly influence their actual usage.

The study will contribute multiple significant enhancements to the existing body of knowledge. The study seeks to address a notable gap in research by examining the extent to which travelers are motivated to adopt and utilize AI chatbots, as well as the factors that influence their willingness to accept and use them. The resolution of this study inquiry is vital for chatbots designed for tourism planning, which include features such as efficient and effective travel plan search, recommendations, travel assistance, and real-time bookings for transportation, hotel accommodations, and other travel packages tailored to individual customer preferences. Furthermore, this study establishes a solid theoretical foundation by integrating the S-O-R theory with models that explain the adoption of technologies, particularly by incorporating elements from the UTAUT and UTAUT2 frameworks. Therefore, this novel approach allows for a comprehensive assessment of the factors that impact consumers' acceptance of AI.

**Keywords:** Perceived ease of use, perceived intelligence, AI-chatbots, Adoption intentions, Facilitating conditions, tourism and travel.