

Chapter 18

Artificial Intelligence's Potential to Improve Operational Efficiency and Customer Experience in the Hospitality and Tourism Sectors


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ABSTRACT

This study examines the incorporation of artificial intelligence (AI) technologies in the sectors of tourism and hospitality with the goal of understanding how they influence customer satisfaction and operational effectiveness. To lay the groundwork for a thorough examination of AI-driven developments, the introduction provides an overview of AI technologies and their possible uses in the hospital and tourist industries. The sections that follow focus on particular fields in which artificial intelligence is significantly advancing. Stakeholders in the hospitals and tourist industries may fully utilize AI to produce experiences that are unmatched and have

DOI: 10.4018/979-8-3693-6755-1.ch018

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a good social impact by committing to ethical AI deployment, collaborating with partners, and making strategic investments. Achieving remarkable experiences, encouraging sustainability, and propelling industrial expansion are all possible with AI if stakeholders in the hospital and tourist sectors embrace its ethical use, collaborate, and make calculated investments.

INTRODUCTION

Big data, computing power, and algorithms are the foundation of artificial intelligence (AI). As a consequence of several trends that have coincided, each of these three components has recently undergone significant improvement: First, artificial intelligence (AI) algorithms are being developed and improved; second, processing power is being increased; and third, in the context of big data, new and more powerful information sources and architectures are being created that allow for the storing and processing of massive amounts of data. AI is particularly significant to travel and tourism for a variety of reasons. For their next trip, travellers need to make decisions about a lot of things, such as activities, accommodations, modes of transportation, and destinations (J. Bulchand-Gidumal, 2020). AI is revolutionizing the travel and hospitality industries. AI has generated creative ideas in the service sector that have revolutionized the market in terms of higher service quality and better organizational performance (Yashwant Singh Rawal et al., 2022). A revolutionary shift in the travel and hospitality sectors has been brought about by the confluence of advances in AI algorithms, computer capacity, and big data. The market environment has changed as a result of these developments, which have also increased organizational performance and service quality. Travelers have a lot of decisions to make about their trips, from activities and accommodations to transportation and destinations, and artificial intelligence plays a crucial part in making these selections easier. We'll look more closely at how AI is changing consumer experiences, improving operational efficiency, and driving innovation in the ever-evolving travel and tourism industries.

Background and Context

Artificial intelligence (AI) has proven revolutionary in a number of industries, including tourism and hospitality. Businesses are operating, optimizing operations, and interacting with customers in a whole new way, thanks to the incorporation of AI technologies. Just a few of the numerous applications include data analytics, robotics, machine learning, and natural language processing for artificial intelligence (AI), a technology that can simulate human intelligence. Significant interest and investment

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