


# Chapter 21

## A Review on Marketing Tourism in the Era of AI: Future Scope for Sustainable Tourism in India

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### ABSTRACT

*The chapter aims to review the extant literature of AI and AR in marketing tourism using bibliometric methods to understand the research's status, development, and growth from 2012 to 2023. The methods adopted include keyword occurrence analysis, factorial analysis using multi correspondence analysis (MCA), thematic map, and multiple collaboration networks. The use of location-based AR technology in various fields of sustainable tourism have been examined in this chapter. It also aims to review the policy initiatives of Government of India in the pandemic phase towards the attainment of sustainable tourism development in the country. It reveals that academicians in countries such as China, Spain, USA, and India have conducted substantial studies on the technical side of artificial intelligence and augmented reality in tourism. It is found that tourism sector is far behind in the use of AI and AR technology in India. Therefore, the author proposes a novel strategy based on artificial intelligence to explore the opportunities of marketing techniques in the tourism sector.*

### 1 INTRODUCTION

One of the industries in India that is expanding the fastest is tourism, which also provides employment for locals and significantly boosts the country's GDP (Bhardwaj et al., 2023). India ranked sixth in terms of the GDP contribution of travel and tourism in 2021, according to the World Travel and Tourism Council (2022). It reports that travel and tourism contribute 5.8 percent of share in GDP. Tourism industry in the country has marked an annual growth rate of 9.4 percent in 2019 and is expected to support for about

DOI: 10.4018/979-8-3693-0418-1.ch021

46 million employment opportunities by 2025. According to India Tourism Statistics (2022), India's share in international tourist arrivals was, 1.64% in 2021. India's ranking in terms of international tourist arrivals was 19th rank in 2020. Therefore, it is understood that the tourist industry has a tremendous potential to create a sizable number of career possibilities for both qualified and untrained individuals (Bhardwaj and Kalia, 2021).

The Indian government identified tourism as a priority industry in its National Tourism Policy of 2002 because it can sustainably increase the productivity of India's natural, human, cultural, and technological resources. Additionally, it has been noted that the level of tourism development has a cap above which the environment deteriorates and people's enjoyment is reduced. As a result, the nation has started a number of sustainable tourism-related initiatives that can be used as a tool to achieve high-quality tourism that causes little harm to the ecological, social, and cultural environment. Along with ensuring that the socioeconomic advantages of tourism are fairly distributed to the local population at the destination, it also attempts to maintain the environment continuously. The idea of sustainable tourism has arisen as a framework for making the most efficient utilisation of environmental resources while taking into account the long-term viability of economic activity.

Since 2020, the COVID-19 pandemic has had an undesirable effect on the various industries (Sharma et al, 2022) and tourism industry one of the most affected. Due to the lockdown effect, earnings from travel and tourism industry fell sharply. Huge employment loss coupled with income loss had been reported during this period. According to the Economic Survey 2022, as many as 14.5 million jobs were taken away as a result of the pandemic and subsequent government shutdown in the initial three months of 2020-21, consisting of a calculated 34.8 million productive positions in the pre-pandemic phase of 2019. It not only highlighted the vulnerabilities of tourism sector but also reminded to think about the capacity to respond to such a crisis with the adaptation of technological advancement in the long term. It is viewed that a continuous innovation strategy in structured tourism products and rich experiences are required to revive the sector in the post-pandemic phase. Therefore, the Draft National Tourism Policy for 2022 has been created to modernise the nation's tourism industry. Furthermore, the Draft National Tourism Policy emphasizes that marketing and promotion are critical components in increasing earnings from tourism products. Promotion, internet marketing, focusing on foreign tour operators, and media management are some of the main strategies for marketing tourism that have been considered. The goal of the policy is to increase the assistance given to the tourist sector in the digital transformation of its business models and operational procedures, which in turn results in the electronic transformation of activities connected to the growth of the tourism market.

As is well known, the global corporate landscape has been altered by the digital age. Studies show that information systems and technologies are essential to the tourism sector (Law & Buhalis, 2014). The development of the tourism sector is regarded to have been greatly influenced by both artificial intelligence and augmented reality (Liang, L., & Elliot, S., 2021; Stroumpoulis, Kopanaki, & Varelas, 2022). AI is associated with innovations and is significant to the tourism sector (Tou, 2021; Xiang, 2022). Personal travel assistants, robots, prediction and forecasting systems, language translation software, voice recognition, and natural language processing systems are just a few of the artificial intelligence (AI) applications currently being developed and tested in all facets of the travel and tourism industry (Gidumal, 2020). However, scholars and industry leaders began to acknowledge the expanding body of academic literature on the potential application of Augmented Reality (AR) in tourism as early as 2000 (Liang, L., & Elliot, S. 2021). Augmented reality (AR), according to Azuma and associates (1997), is a system that combines real and virtual components and enables users to make contact with both the

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