

## Chapter 10

# Investigating the Implications of Virtual Reality and Augmented Reality in Tourism Marketing: A Systematic Literature Review of Publications From 2010 to 2023

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### ABSTRACT

*This literature review aims to investigate the developments of virtual reality (VR) and augmented reality (AR) research in tourism marketing. This chapter also highlights fruitful directions for tourism marketing research regarding VR and AR applications. A total of 31 full-length articles published between 2010 to 2023 were retrieved from the Web of Science database and reviewed. The theoretical backgrounds of the articles were thoroughly examined, and a detailed report on the research progress of the theories and research methodologies are presented. Finally, future research directions for the improvement of the existing literature are explained.*

### INTRODUCTION

The expansion of the internet and technological innovations have changed the form of the hospitality industry and influenced how consumers perceive and consume tourism destinations. Latest technological innovations (i.e., virtual reality, augmented reality, artificial intelligence) create opportunities for destination marketing companies to offer several options for their potential visitors to experience different destinations. Even though Virtual Reality (VR) and Augmented Reality (AR) provide numerous opportunities and challenges for companies to enrich consumer experience, practical applications have become prevalent in the last decade. The existing literature on the subject is unstructured. Therefore, this systematic literature review is conducted to synthesize the latest developments in the field and to propose avenues for future research.

DOI: 10.4018/978-1-6684-6985-9.ch010

AR and VR technologies establish various sources of value, such as creating entertainment value, supporting purchase decisions, and improving product usage (Kostin, 2018). AR differs from VR in that it enhances the perception of reality rather than replacing it. Whereas VR generates an artificial environment in which the user engages in a simulation of the real world or a totally fictitious world (Bretonès et al., 2010), AR applications allow users to merge computer-generated content and real-life and to communicate with virtual elements in the real world (Shabani et al., 2018). The approaches that AR and VR embrace inspired hospitality and tourism marketing researchers to further investigate the role of these technologies in promoting e-marketing (Shabani et al., 2018), generating impactful advertising strategies (Phua and Kim, 2018), and designing compelling customer experiences.

The COVID-19 pandemic put the tourism industry in an extremely difficult situation. According to the UN report, in January 2021, tourist arrivals worldwide decreased by 87% compared to January 2020 (UN, 2021). This fall forced the hospitality sector to change its business models to overcome the challenge. Thus, service providers in the tourism sector adopted new technologies such as virtual travel, virtual tours, and AR-enhanced options. Virtual travel helps tourists to explore the destinations before/without physically visiting there. For instance, the Patagonia VR experience presents a lively experience that allows users to explore Monte Fitzroy and Laguna Sucia, where accessing is difficult in real life. Also, virtual tours of hotels provide potential visitors an opportunity to experience the atmosphere before they book their rooms. Various upscale hotels are now adopting these tours as a tool to present their locations and facilities online that can be reached by simply using a smartphone. After visitors make their reservations with the help of VR and start their dream vacation, then AR will be there with different applications to enhance real-life experiences (Marr, 2021).

VR / AR applications have become a necessity for the hospitality sector. In 2023 the global AR and VR market is expected to grow to \$304.4 million (AR Report, 2020). Hence, this chapter mainly aims to investigate the recent advances in virtual reality (VR) and augmented reality (AR) research in tourism marketing. It also aims to identify fruitful directions for tourism and hospitality marketing research on VR and AR applications. A literature review of full-length articles published between 2010 to 2023 (including the post-pandemic period) is conducted. Since the Web of Science (WOS) is the database that includes the main body of VR and AR research in diverse scientific disciplines in peer-reviewed journals (Antons and Breidbach, 2018), it is examined with the keywords of the chapter.

The scope of this systematic literature review comprises both empirical and conceptual studies of VR and AR usage in tourism and hospitality marketing. First, a non-systematic literature search with the aim of extracting additional keywords (Boolean phrases based) is conducted. Then, a more cautious approach is adopted. Articles studying VR and AR in the hospitality marketing context across disciplines and related articles in fields that are core or adjacent to hospitality and tourism (i.e., business, management, or psychology) are included. Then, screening processes are executed. At the beginning of January 2023, the completeness of the dataset was validated by cross-checking it with existing reviews and the literature review sections of published articles on VR and AR. And the final dataset is adopted (n 31).

This paper represents one of the first attempts to extensively review research improvements on VR and AR in tourism and hospitality marketing from 2010 to 2023. This chapter summarizes the distribution of the published articles. Then, it synthesizes the motivations, dimensions, and consequences of AR- and VR-related experiences and develops a theoretical framework. This chapter also presents a report on the progress of theories and research methodologies, providing valuable background to indicate the gaps in the literature. Finally, it explains promising directions for improving the current knowledge about VR and AR utilization in hospitality and tourism management. By doing so, this chapter shows

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