

## Chapter 5

# Exploring the Role of Graphic Design–Driven Virtual Reality in Sustainable Tourism

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### **ABSTRACT**

*Since the COVID-19 pandemic, tourism has declined precipitously as a result of lockdown procedures that have prohibited the majority of international travel and ultimately increased people's online activity at home. Virtual reality (VR) is an example of an online activity that simulates and infiltrates the real world through games and interactive media. This chapter aims to determine whether using newer generation wearable devices to create virtual reality experiences via immersive graphic design has an effect on people's intentions to visit virtual destinations and tourist attractions in lieu of physical travel. The chapter also determines the effect of perceived visual appeal (PVA) and emotional involvement (EI) on behavioural intentions toward visiting a cultural heritage site in a virtual destination. Using the Saudi Arabian holy pilgrimage of Hajj as a case study, the chapter hypothesises that delivering the PVA of the virtual experience via virtual reality via immersive graphic design will result in a significant increase in intentions to visit a virtual destination.*

### **INTRODUCTION**

Since March 2020, when the Covid-19 pandemic was officially declared, many public services and retailers have been severely limited, and business operations have been suspended (MacKenzie, 2020). This has altered the employment landscape in general, with many people taking their jobs home or, in the case of the less fortunate, jobs ceasing or being lost entirely. As a result, businesses with a strong online presence have dominated the market, most notably Amazon, which is expected to earn its highest profit ever in 2020, estimated at around \$11.5 billion (Owen, 2020). As a result, individuals have established online businesses in which they sell goods and services.

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For instance, destination marketing has recently gained traction in the online realm, with the emergence of virtual tour services (Marasco et al., 2018). These services are based on Virtual Reality (VR) technology, which simulates and infiltrates the real world through games and interactive media. Due to the fact that virtual reality is a relatively new consumer technology and a relatively new marketing tool in the tourism industry, it is still considered a niche service in destination marketing (Jung & tom Dieck, 2019). However, there has been a lot of buzz recently about virtual reality, and it will eventually become more mainstream, particularly in light of recent events, such as the covid-19 pandemic, which has isolated people in their homes while increasing their access to online services. As a result, the tourism industry has been crippled to the point where virtual tours are being used to reintroduce it to the public (Kwok & Koh, 2020).

Sustainable virtual reality experiences can be used to augment traditional television commercials as destination marketing tools. Destinations and tourism boards can create virtual reality content by incorporating immersive graphic designs of well-known tourist landmarks and attractions, as well as virtual experiences of communities and the environment in a simulated environment (Novotney, 2020). People already have access to potential in-home virtual tour services, as ownership of VR-capable devices, such as the latest iPhones and virtual reality headsets, is increasing. These devices are also powered by Artificial Intelligence (AI) technology via simulation.

As a result, this chapter delves into sustainable tourism and the role of virtual reality in achieving this goal through the provision of online tour services in an attempt to revitalise the industry's decline and make it a viable future business venture.

## **POTENTIALS OF VIRTUAL TOURISM DESTINATIONS**

The evolution of technology has had an effect on the inventions of products, services, processes, and management (Schwab, 2017; Zhong et al., 2017). New technologies have altered how tourism businesses design and deliver tourism experiences, as well as how visitors perceive destinations (Huang et al., 2016). In particular, new technologies have the potential to connect tourists and destinations, to extend the experience in time and space, and to increase the value generated by the process of involving all stakeholders (Chen et al., 2017). Tourists can take advantage of both virtual and physical experiences while travelling, courtesy of mobile technologies. Three stages comprise the travel process: pre-visit, during the trip, and post-visit (Rahman et al., 2014). During the pre-visit phase, tourists begin to form expectations for the visit and activate their decision-making process. To a large extent, new technologies are critical during this preparatory stage, as businesses and destinations can leverage new technologies to promote their products and destinations in more innovative and effective ways. While websites and social media are frequently used to promote tourism destinations and products, there are only a few of the widely used technological tools, which are employed to collect data and facilitate social interactions with other tourists (Liu et al., 2020).

Tourism organisations can leverage augmented reality (AR) to increase visitor traffic and thus improve their own destinations. Academics have long been intrigued by the potential of augmented reality to enhance destination information provision and to create engaging and interactive tourist experiences (Chen et al., 2017; Han et al., 2018; Jung & tom Dieck, 2019; Lourenção et al., 2020)

With the advent of virtual reality, it has developed into a powerful marketing tool for destinations. They suggested that VR had far-reaching implications for the promotion and sale of tourism products, as

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