Chapter 21
The Impact of Augmented Reality Experiential Marketing on Tourist Experience Satisfaction

Andrijana Kos Kavran
https://orcid.org/0000-0002-1441-0321
Polytechnic of Medjimurje in Cakovec, Croatia

Bruno Trstenjak
https://orcid.org/0000-0003-3114-9484
Polytechnics of Medjimurje in Cakovec, Croatia

ABSTRACT

The purpose of this chapter is to investigate the impact of augmented reality experiential marketing (AREM) on tourist experience satisfaction. The chapter adds to the existing body of literature in the area of tourist experience satisfaction and its attributes and the use of augmented reality in the scope of experiential marketing. An experiment using an augmented reality system was conducted, which included a sample of 432 tourists who visited a tourist destination in Croatia. The data were tested using machine learning methods, namely information gain (IG) technique, K-means method, weighted K nearest neighbor (WKNN) method, and linear regression (LR) method. Findings indicate that augmented reality experiential marketing has a positive impact on tourist experience satisfaction.

INTRODUCTION

Research has shown that an increasing number of tourists are looking for reliable, relevant and interesting information that will enhance their experience and entertainment (Fritz et al., 2005), which destinations should provide, as a new tourism offer, to be competitive on the global market, in order to continue a positive trend in the growth of international tourist arrivals for the seventh consecutive year

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(2018 saw growth in international arrivals of 4% over 2017) (UNWTO, 2019). The competitiveness of tourist destinations has led to the situation that they must identify themselves the factors that will create and enhance the tourist experience in the best possible way. One way to create the additional content in tourism is the inclusion of technology, namely augmented reality, which is positioned at the highest level of tourist experience hierarchy (Neuhofer et al., 2013). Augmented reality helps to create the virtual tourism products and their implementation into the current reality of tourists. Tourism is suitable for the application of augmented reality in terms of enhancing the tourist experience that will affect experience satisfaction in a destination. Augmented reality is used as an experience provider in experiential marketing. One of the basic principles underlying experiential marketing is that value is not only in the subject of the purchase (products and services) and their utilitarian and functional benefits, but also in the hedonistic and experiential elements that surround products and services, and the experience of consumption itself (Zarantonello & Schmitt, 2013). This chapter contributes to the limited research papers on augmented reality experiential marketing and its use in enhancing the experience satisfaction in a destination and represents an example how different research areas could be merged and give significant research results. It also shows how machine learning methods and techniques can be used for analysis of tourism and marketing data. The purpose of this chapter is to use a different data analysis approach that is not common in social sciences.

The first objective of this chapter is to predict which of the destination attributes induce higher experience satisfaction in a destination. There are two aspect of how to measure the experience satisfaction in a destination. The first aspect includes measuring experience satisfaction with a single destination attribute (Yuan et al., 2007), and the second aspect includes measuring the overall experience satisfaction (Chi & Qu, 2008). Former research has shown that overall dis/satisfaction is a function of single or multiple destination attribute dis/satisfaction (Huh, 2002). The second objective of this chapter is to explore the relationship among augmented reality experiential marketing and tourist experience satisfaction, in the phase of tourist stay in a destination, using machine learning techniques. Augmented reality is a technology that can be used as an experience provider and create different experiences, especially in tourism. Machine learning methods and algorithms can be applied in various research domains, as in the field of marketing and tourism, and they were used, in this chapter, to process the data gathered in the research. The hybrid machine learning model, that gathers several data processing methods was used. It combines Information Gain method (Beniwal & Arora, 2012), K-means method (Trstenjak & Donko, 2014), Weighted K Nearest Neighbour (WKNN) method (Asma et. al, 2016) and Linear Regression (LR) (Lunt, 2015). More about the structure of the hybrid model and the role of each embedded methods is explained in the research methodology section.

BACKGROUND

Tourist Experience Satisfaction

Experiences are a complex phenomenon that can be considered as events that drive individuals on a personal level (Pine & Gilmore, 1998). Schmitt (2010) states that experiences are present states - perceptions, emotions and thoughts that consumers form in contact with products and brands on the market at the moment of consumption, as well as memories of those experiences.