



VIRTUAL REALITY: A MARKETING APPROACH FOR TOURISM DESTINATIONS

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Abstract

Innovation in Information and Communication Technologies (ICT) not only provide tourists a platform for interactions but offer the abundant potential for Destination Marketing Companies (DMCs). These present the positive image of the destination and promote the intangible attributes and aspects of the services by providing visual imagination to users. Virtual Tourism is an effective tool which provides the feel of real tourism involvement. It offers deep sensation, reduces the perceived risk of purchase intention and helps in informed decision-making. The objective of this paper is to explore the usefulness of virtual reality technology in tourism industry and investigate the implications of virtual reality in destination marketing and promotion. It is found that the efficacy of Virtual Reality and 3D technology is promising. It's being adopted by marketing companies recurrently for attracting new customers and transforming the potential customers in actual customers while ensuring satisfactory experience of users. A number of new-generation technologies and applications such as Head-mounted Display (HMDs smartwatches, body-warm cameras, Oculus Rift, Samsung Gear) etc. are being developed and used effectively in tourism for marketing and promoting the destination.

Keywords: Virtual Tourism, Virtual Reality Technology, Tourism Marketing, Destination Promotion, Virtual World, Second Life

Introduction

Use of Information and Communication Technology and e-marketing in travel industry are studied by various researchers to understand the persuasiveness of online marketing efforts and bring influential changes in potential customers for visiting a destination (Cho, Wang and Fesenmaier, 2003; Kah, Lee and Chung, 2010; Hernández-Méndez, Muñoz-Leiva and Sánchez-Fernández, 2013). Innovation in Information and Communication Technologies (ICT) not only provide tourists a platform for interactions but offer numerous possibilities for Tourism Destination Companies (DMC) and Destination Marketing Companies (DMC). These utilize theses to present the positive image of the destination (Baker and Cameron, 2008) and promote the intangible attribute and aspects of the services by providing visual imagination (MacKay and Smith, 2006; Aziz and Zainol, 2011).

When it comes about tourism, then the visual imaginary plays a noteworthy role in destination promotion and influence customers (Mackay and Smith, 2006; Aziz and Zainol, 2011). Virtual Reality technology enables the customers to have experience integrating their perception, brand loyalty, consumption and meaning (Williams 2006). Users can enjoy the every aspect of travelling, consuming services, shopping, learning about new destinations, attractions, interact with others etc and create the perception about the destination and the brand. Customers are more defiant to conventional mediums of promotion and advertisement such as television, banners, websites, and brochures etc for information retrieval (Fransen et al., 2015) and the efficacy of Virtual Reality (VR) and 3D technology for the same is promising and it's being adopted by marketing companies recurrently. VR technology works as a medium for the service providers and potential customers and can be used for communication and interactions among various stakeholders and actual customers (Han, S., Ghinea, G., & Groenli, T. M. 2017). The utility of virtual technology for destination promotion and tourism marketing bring numerous benefits for the users, potential customers, and the marketing companies themselves in terms of awareness, advertisement, market research etc. The objective of this paper is to explore the usefulness of virtual reality technology in the tourism industry and investigate the implications of virtual reality in tourism destination marketing and promotion.

Virtual Reality Technology in Tourism

Virtual Tourism is an effective tool to provide the feel of real tourism involvement offering deep sensation and reducing the perceived risk of services purchase intentions and helping in informed decision-making (Klein, 2003). Virtual Tourism (VR) can be defined as “use of a computer-generated 3D environment that one can navigate and possibly interact with, resulting in a real-time simulation of one or more of the user's five senses” (Guttentag, 2010, p. 638). VR is a form of marketing that makes customers feel like being at the destination, consuming various services and participating in activities as they could have done while actually visiting the place through a virtual world. Virtual worlds have been referred to “persistent virtual environments in which people experience others as being there with them and where they can interact with them” (Schroeder, 2008, p. 2).

The overall worth of VR is expected to be 30-70 billion US\$ by 2020 (TrendForce, 2015). At the present, use of VR in various businesses is promising and beside the Smartphone manufacturers the Information and Communication Technology (ICT) like Google, Facebook, and websites etc are setting up diverse VR platforms (Han, S., Ghinea, G., and Groenli, T. M. 2017). At the same time, in real-estate VR is used to show and present their developing sites to customers and help in marketing and promotion (Kaleja, p. and Kozlovská, P.2016)). For various training in healthcare and medical services Virtual Reality technology is used worldwide (Cates, C., Lönn, L., and Gallagher, A. 2015). The HMD devices and 3D displays generate realistic virtual environment and enable free movements in and around the sites (Fineschi & Pozzebon, 2015) and these devices can be used for marketing of historical and cultural sites (Leue et al., 2015). A variety of applications of social media, internet and virtual reality etc. are utilized by DMOs for promotion and marketing of tourism destination and have played crucial role in dissemination of portable electronic devices like Smartphone and tablets etc. to experience the destination prior to physical visit (Tussyadiah, 2013; Wang & Fesenmaier, 2013; Wang, Xiang, & Fesenmaier,2014). Besides these, the smartwatches, body-warm cameras, Head-mounted Display (HMDs) have transformed the experience and behavior of potential tourists principally (Atembe, 2015; Jung, tom Dieck, Moorhouse, & tom Dieck, 2017; tom Dieck, Fountoulaki, & Jung, 2018). Thus, a number of new-generation technologies and applications are being developed and used effectively in various industries for a variety of proposes. The industry players by undertaking a field research to identify the needs and requirements of the industry and market can plan the efficacy of virtual technology in the area.

The Utility of Virtual Reality in Tourism Management

Use of VR by tourism professionals and researchers provide insights into various fields of tourism i.e. attractions, planning, presentation, and marketing etc (Guttentag 2010). A number of benefits of VR have been identified in tourism domain which communicate the tourists' planning, experiences and actions at a destination i.e. entertainment opportunities (Healy, van Riper and Boyd, 2016), planning of tour, enhanced accessibility to isolated areas, preservation and conservation of insubstantial place, learning and education of tourists (Guttentag, 2010) and provide options to expanded interactions among travellers worldwide (Huang, Backman, Backman and Moore 2013). A number of people before undertaking a trip get an experience of 'Visual Traveling' and the plan accordingly (Tussyadiah, I., Wang, D. and Jia, C. 2016).

Y. C. Huang et al. (2016) investigated the factors that influence various experiences and Behavioral Intentions (BI) experiencing 3D Virtual Tourism Destination by using Technology Acceptance Model (TAM), and Self-Determination Theory (SDT). It was concluded that autonomy and relatedness are influential in customer experiences and BI and perceived ease of use have a positive relationship with enjoyment. VR can significantly influence the expectations of travelers and destination image by providing them real life experiences and interactions. It can build up the expectations prior to purchase or consumption of services (Jung and Han, 2014) and are further liable to influence purchase decisions (Mascho and Singh (2014). Music, graphics, pictures, videos, and storytelling etc. content components of 3D tourism site usefulness create a sense of place and help in travel planning process (Y. C. Huang et al., 2016). In a study, Grifn et al. (2017)

stated the acceptance of the new technology higher with 28 participants of the study in the sample of 40 had previously had some kind of VR HRD. It was interesting to note that VR doesn't statistically inform about the intention to visit the place shown in the virtual world in near future and it was silence regarding the cognitive image attributes (Grifn et al. 2017). Virtual tourism is used on a large scale worldwide by diverse DMOs for attracting new customers and transforming the potential customers in actual customers while ensuring satisfactory experience of users.

Tourism Destination Marketing through Virtual Reality

The objective of marketing is to engross the image of product or service to the potential customer. Use of VR convey emotional reactions and thus provide them real experience, additionally influencing their behavioral intentions (Han, S., Ghinea, G., and Groenli, T. M. 2017). In the context of research in VR in tourism, there is a scarcity of knowledge about adoption and utility of VR technology for tourism destination marketing and promotion. The visual effects and vibrant images presented by VR comprise of 70% of human emotions and counted as an effective marketing tool in different fields (Few, S. 2013). Han, S., Ghinea, G., and Groenli, T. M. (2017) in the study provide 17 Critical Success Factors (CSFs) of Virtual Reality-based marketing for considering its utility in marketing. Timing, objectives, budget, the message reflecting presence and empathy, market positioning strategy, communication strategic direction, innovations, understanding niche, curiousness and awareness management, customers needs, desire to use VR and finding team members etc are major factors to be think about before planning the marketing and promotional strategies for the business. These success factors can be exercised for making decisions regarding the use of innovative technology like VR. Cho et al. (2002), highlighted the usefulness of VR technology in determining destination image, corresponding perceived satisfaction and expectations from the destination with actual experience depending on visual information search and search criteria. In the study of virtual world Second Life (SL) Huang et al, (2013) explored the merits of tourism marketing describing it as a platform for communication and interactions, sources for information search and medium of providing hedonic benefit to users.

A. Marasco et al., (2017) investigated the influence of Perceived Visual Appeal (PVA) of VR and users' emotional involvement on the behavioral intentions to visit a destination. The survey conducted for the study revealed the positive and significant effect on BI and additionally, PVA was found to be more effective on behavioral intentions. Mascho and Singh (2014) conducted the interviews of respondents from various virtual worlds and drew some findings. For measuring the growth and attracting supplementary sponsors for SL, software are used to follow the number of exclusive visitors and the time spent by them; but there is need to develop a system to measure the influence of SL visitation on actual traveling. In the study, the most of the respondents stated minimum requirement of staff in the virtual world while the companies get the return on investment in the form of benefits of promotion, increased awareness and branding (Mascho and Singh, 2014). These mobile technologies facilitate tourists' involvement in pre-visit, during the visit and post-trip phases (Neuhofer et al., 2012). Williams and Hobson (1995) first predicted the innovation in marketing field of tourism due to development of VR Technology. Mascho and Singh (2014) listed some examples of the application of virtual world by DMOs for marketing purpose. For instant, the largest Virtual World created by users which aids the 3D virtual

world is also recognized as Second Life (SL) facilitate the residents (users) to explore the real destination virtually, to socialize, communicate and exchange of product and services. Galveston, Texas developed a virtual world in 2007; provide guided tours, traveling to historical places, videos, applications of travel forums, travel advices etc; purchasing options provided to the users of Intoscana.; creation and extension of information centers, real-life shops offered by Dublin Virtual Live etc.

Implications for Virtual-Reality Based Tourism Marketing

For a high-quality experience in virtual environment, the users use visual output devices like the computer screen, glasses and HMD devices such as Oculus Rift, Samsung Gear etc facing eyes. The high-quality 3D images and visual elements give the feeling of physical immersion and psychological presence in the tourism destination (Guttentag, 2010). Various attributes of 3D images for instance shadows, lights, lucidity and texture should be adjusted well to provide positive experience to pre-visit stage (A. Marasco et al., 2017) which will further influence the interest and intention for the next stages of travel planning and actual travelling (Neuhofer et al., 2015). The Destination Marketing Organizations (DMO) should develop 3D virtual sites helpful for travel planning (Kim, Lee & Chung, 2013), effective, more reliable and credible platform for customers for ensuring their enjoyment and positive behavior (Y. C. Huang et al., 2016) considering target market's needs, perceived effectiveness in trip planning (Gretzel & Fesenmaier, 2009; Hays, Page & Buhalis, 2013) psychological needs of autonomy and relatedness (Wang, Yu & Fesenmaier, 2002). For encouraging virtual participation and interaction among users concerts, lectures and guided tours play a significant role (David, 2010). DMO can use these virtual worlds to the augmented presence of destination on the web (Devid, 2010). These new ways of marketing are proved to be less expensive and give more personalized experience in comparison of traditional marketing tools (Mascho and Singh, 2014). These virtual worlds need to keep an eye on the changing hi-tech environment and maintain the up gradation of technology and delivery strategies according to the needs and competition in the market to survive for a longer period and convert the virtual experience in actual visit experience.

Conclusion

In every service industry, there is always a risk for customers in terms of purchase intentions and for service providers and marketers to attract its customers towards the intangible products. Internet applications are being expanded regularly to eliminate such issues and problems in order to provide a platform for consumers and service providers to interact and communicate with each other and enjoy the services. In the tourism industry, the virtual reality is the technology used on a large scale by marketers to provide the opportunity for users to have a real-life experience of tourism destination and facilitate in tour planning, preservation and conservation of frail sites, learning, and education of tourists and offer accessibility to isolated areas. A number of virtual worlds are created by tourism marketers for this purpose globally which focus on providing reliable, credible and real experience for users and work to develop perceived positive image of the destination and influence the behavioral intentions to visit the actual destination in near future. The DMOs need to develop new marketing strategies according to the market needs and demands as well as the competitive approach and usefulness of virtual reality technology to persuade the users' intentions and involvement in the virtual environment.

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