Immersive Technology: Marketing in Tourism Sector

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1. Introduction

We are living through one of the most transformative eras in human history. What was once science fiction has become realized and is now a science fact. The development of technical concepts such as AR (Virtual Reality) and AR (Augmented Reality) in Immersive Technology had led some companies in the tourism industry to focus the intensive use of these technologies to explore innovations in advertising and marketing, services and infrastructure offered.

According to the research, there are different types of customer experience (Pinner, 2014) in terms of experiential marketing: feelings, thoughts, actions, relationships, and sensations. There will be greater effectiveness in marketing by focusing on the satisfaction of customer experience which is the key factor to influence their decision and relationship with a brand, service, or product.

It is also important to get the concepts of these technologies before exploring the impacts they have on marketing. Nowadays, people hear the terms virtual reality and augmented reality a lot, they sound very similar but in fact, they are very different things in very different ways.

VR replaces reality, it is the experience of a world that is made up of computers that allows people to interact with a 3D world, by putting on a VR headset such as PlayStation VR and the Oculus Rift (Pocket-lint, 2019). When the headset is turned on, your vision is filled with whatever is being displayed, it can be a game, a virtual platform, or a video. The display is normally split between your eyes with a stereoscopic 3D effect and stereo sound. This will lead you to a believable experience and allow you to explore more in this virtual world.

Compare to virtual reality which will replace your vision, augmented reality adds to the reality. It lets you see everything in front of you. The technology gives you completely free of movement while displaying images over whatever you look at (Laria and Pantano, 2011). While virtual reality covers your vision completely, virtual reality can project images on your smartphone or tablet screen on top of whatever the camera is looking at [6]. There are also other devices such as Magic Leap One and HoloLens that can let you virtually place 3D decorations around you.

2. Immersive Technology and Marketing

The information systems improve the business processes, especially with the VR and Immersion technological concepts (Laria and Pantano, 2011). For example, the tourism sector takes the advantages to explore better marketing and advertising actions of the services and infrastructures they offer.

From the result of the research (Pinner, 2014) of where the concepts of immersive marketing in the tourism sector, we can indicate that there are different types of technological solutions for different immersion of VR. The solution can be non-immersive, semi-immersive, and

immersive. Hence, technological devices and virtual content can be more complex and complicated if a more immersive solution is applied. The research found that the HMS – Head Mounted Display is mostly used for cost-benefit and immersion capacity. The lower cost you pay, the lower the immersion HMDs you get. The use of VR lenses to show a service or scenery landscape, whose image is connected to actuators and sensors to enrich the sensory experience. The information on consumer preferences and interests is a sum of technologies and concepts that are trends in marketing of the hotel industries with a direct impact on the tourism sector.

In the concept of customer decision journey in marketing, the stages of a tourist's travel experience consider that travellers use technology in planning, booking, preparing to travel, arriving at the destination, and enjoying the trip (Fuggle, 2016). It is necessary to develop the technological solutions that can be applied in each of these stages. To satisfy customers from different backgrounds, some factors need to be considered, for example, age ranges, cultural characteristics, and social conditions of travellers during the planning stage.

The combination of the concepts of experiential marketing and sensory marketing is aiming to influence customer's decisions and relationships with the services, events, and products. Considering the context and the location of services, events, and products, it also requires other hardware technologies that allow this information to be provided. It is important to focus on five types of consumer experiences in the specific case of experiential marketing. These five types of consumer experiences are Sensation, Feelings, Thoughts, Actions, and Relationships.

Sensations: The aim of creating good sensory experiences through different senses such as hearing, touch, sight, and smell. This can be generated with natural user interfaces and display devices.

Feelings: The emotions and the innermost feelings of consumers, aiming to create affective experiences from a slightly positive mood to strong emotion of pride and happiness. This can be experienced through the use of metaphors that awaken emotions and feelings based of visual devices and natural user interfaces.

Thoughts: The intellect to create epistemic experiences that attract consumers creatively. This can be implemented using metaphors and even avatars, digital objects which can represent living things, or any objects that represent some sort of information.

Actions: The aim of creating a customer experience that is related to physical aspects, behavioral patterns, lifestyles, and experiences arise from the result of interacting with other living things and scenarios.

Relationships: The aim to bring the experiences that go beyond the feelings, sensations, and actions of the customer. By using simulation, navigation, and transduction, as well as other immersive technologies. It can create connections between the customers and other users of the brand, to generate a social relationship with real or characters in the virtual worlds.

3. Technologies and Tools for Immersive Experience in Museums

In the past decades, museums are becoming more aware that bored is their biggest enemy to attract visitors. Under the influence of VR and AR technologies, museums have become increasingly digital in recent years. It has an important shift from the idea of a collection-oriented museum to a user-oriented museum. This new approach is based on the use of the most recent devices and technologies to enhance the interaction and engagement of the visitors and give them an active role to play, as well as to get visitors absorbed into the storyline to reach the goal of the immersive museum (Romano, 2020). The following are two examples of the successful ways in which advanced technologies can be used to immerse visitors into the storyline and enhance their engagement.

3.1 Augmented Reality: Beacon Glass Museum

The Trajan's Markets – Museum of the Imperial Forums is located in the heart of Rome. It presents an overview of Ancient Roman architecture and sculptural decoration. The project "Beacon Glass Museum: the Museum of the Future" offered an extra virtual path with fourteen points of interest among the major attractions and uses AR viewers – Epson Moverio and Google Glass. Every point of interest had additional content such as audio, images, 3M animation, and texts that visitors can view with their eyes. Everyone was able to move freely to explore the attractions and the related multimedia content without the need for extra headphones as the AR viewers were equipped with their audio system.

In November 2015, 115 visitors with a high level of education were involved in this experiment, 15% used the Italian version and 85% used the English version (Pantile et al, 2016). Both groups declared a good level of satisfaction and commented positively with additional content and the innovative visit experience. The small amount of negative feedback is related to some overlaps between the content of the AR experience and other tools of the tour such as panels and guides.

3.2 Virtual Reality: Abissi VR Experience

The Acquario di Genova is Europe's largest Aquarium, built for Expo' 92 to celebrate the fifth centenary of the discovery of the New World by Christopher Columbus. Over a million people visit this place each year. During spring 2016, Acquario di Genova underwent a massive renovation for its 25th anniversary (Pantile et al, 2016), it then became one of the first permanent virtual reality installations in Italy and Europe, this allows visitors to get a close view of the sea species. The software app was developed using C# and Unity and Samsung Gear VR includes special audio-fitted chairs. The video is about 3 minutes long, it is a 3D computer graphics and rendered with a 360 degrees virtual camera.

Even though there is an extra charge over the standard ticket price, but it is very successful with the public. Over 60 thousand visitors enjoyed the experience in the period of April – October 2016.

4. Challenges

New technologies always come with challenges. As technology is constantly changing, it requires constant monitoring and testing of the latest technological solutions available on the market. To create robust products, the industry should also focus on communication trends in digital design and culture. The strengths and weaknesses must be correctly identified.

Industries must carry out a careful target analysis to identify potential audience profiles and to create content that will reach user expectations. It is also essential to have a correct assessment of skills and enough staff with clear and effective information on proper maintenance of exhibits, this will avoid problems for monitoring of the structures. After applying the new technology, it is important to gather feedback from visitors to identify the most appreciated content and exhibits (Pantile et al, 2016).

5. Conclusion

Applying immersive technology to the tourism industry can let people perceive the structure and surrounding environment of the place in advance and help the majority of the consumers to choose their favourite plan. This technology can provide users with real experience with a strong sense of immersion. With the continuous development of immersive technology and the hardware as well as the influence of the web, immersive technology will certainly bring convenience and go deep into every aspect of our lives, it is a gateway to those discoveries.

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