A study on the potential benefits of applying Virtual Reality in Travel and Tourism for better destination Image

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Abstract—Virtual Reality and tourism has become popular nowadays and there are efforts to merge both VR and tourism for real time experience for the people who are travel lovers. The purpose of this paper is to throw light on the potential benefits of incorporating VR in travel and tourism for better destination image. The use of VR in travel and tourism has a significant role in creating destination image in the mind of the tourist. A person’s desire of going to the viewed place would actually be higher after viewing a 360 degree video which is indeed due to the fact that VR creates a virtual experience or in the other way a realistic experience of the actual destination. VR acts a solution to destination accessibility for elderly people, people with mobility and panic disorders. It entails the gap between what tourist expects out of a destination and what actually they experience.

Keywords—Virtual Reality, Destination experience, Destination Attribute quality.

I. INTRODUCTION

Years ago we had airplanes to take us to wherever destination we wanted to go and that’s when we people realized that travel and tourism was never as impossible as we expected. Still then tourist never had any insight on the destination they were planning to go unless and until they listened to prior experiences of the other tourists or probably people or relatives staying at those destinations.

Now it is time that technological improvements are on a fast phase and that tourist gets an experience on the destination just at their homes. This was made possible by Virtual Reality mechanism which made use of a computer to create a 3 dimensional world for better experiences to tourist.

Reinforcing the entire tourism sector could be achieved, but it is of a challenging task with criticality element in it. The present economic scenario of most countries has been a challenge with respect to transformation and further development of the entire tourism sector. Tourism is one of the highest revenue yielding sector a country could ever have. But still there are destinations that are actually inaccessible to tourists, may be due to the fact that it is endangered or due to many other factors.

Inaccessibility of these potential destinations for tourists will act as a hindrance for the growth of the country with respect to its tourism sector thereby causing the development of sustainability stagnant. In order to resolve these, Virtual Reality practices shall be made into proper use in the tourism sector. Scientists, theorists and engineers have designed dozens of devices and applications to achieve this goal.

VR is a platform that plays a great role in the storytelling of places. The dilemma is that the quality of the practice of inculcating VR into tourism relies on the outcome it delivers for the tourist in terms of destination images and experiences. Gartner (1994) an early scholar outlined the concept of destination image formation. Lai & Lai (2015) recently defined destination image as:

“A voluntary, multisensory, primarily picture-like, qualia-arousing, conscious, and quasi-perceptual mental (i.e., private, non-spatial and intentional) experience held by tourist about a destination. This experience overlaps and/or parallels the other mental experiences of tourists, including their sensation,
perception, mental representation, cognitive map, consciousness, memory and attitude of the destination.”
In fact the image of the destination formed by a person is not just subjective but is also influenced by its accessibility, attractiveness and the amenities it possess.

Virtual Reality Application

Virtual Reality is purely a technological invention developed for smartphones and motion sensors by tracking a person’s head, body positions and hand. Basically it functions with VR cameras which has the ability to record in all directions. VR when incorporated into tourism, generally delivers impressive results. This in fact helps to attain a mixed reality which is the merger of physical reality and virtual reality whereby people could even touch or speak to each other through virtual mechanisms. Applications and equipment designed to embrace tourist by addressing their wants and needs is definitely the success of the entire tourism sector.

Virtual Reality is a simulation to an imaginary world, and when it is applied in touristic experiments, it considers the sense of sight, as lot of experiences rely on visual stimuli. A new approach to the entire VR mechanism would be a threshold to the multiple advantages that the entire tourism, the tourist, country and the application developers could gain. It is in real terms a multidimensional gain that has been earned. Usually VR application is applied to give an experience on the destination. As a progression to this a VR enabled application shall be developed which can be accessed through smartphones of both android and IOS denomination. This application shall be developed in such a way that the tourist gets a chance to experience each place on their journey to the destination just with a touch.

The working of the application goes this way.

This application is a route tracker enabled application that has a map and direction tracker with VR enabled service. As the tourist travels, this applications navigates them to their destination with a virtual reality image of the places they pass by and the weather conditions. This application can be accessed anywhere. As the navigator crosses each place, pop ups appear on the screen for the tourist to figure out the location and the features. This application concentrates on tele-presence that adjoins all the 5 senses. This medium would actually provide tourist a chance to share dinner together with a friend located at a different region. This apparatus has a tele-robotic programming done to enable tele-presence facility. It also assist the tourist with the accommodation through pop ups on accommodation and can also have a glance through the rooms and other amenities at the hotel.

The net result of incorporating Virtual Reality in Tourism is, it provides a better destination image, which is articulated as the belief in the mind of the tourist about the capabilities of a destination that ultimately leads to better experience, as a result of which there would be a positive word of mouth about the destination to other tourist which in other ways help the country have a sustainable growth by a growth in the tourism sector as well as it benefits the tour operators of that region as well.

II. LITERATURE REVIEW

Enrico Gobbetti and Riccardo Scateni in their report Virtual reality Past Present and Future provides the reader with an understanding of virtual reality, high lighting application domains, technological requirements, and currently available solutions through a survey report. The report also describes on the various applications wherein the use of virtual reality has benefitted in a very straightforward manner. David Vekony and Simen Korneliussen in their master thesis on immersive virtual reality in destination marketing provides a worms eye view on the potential of virtual reality in influencing consumer behavior through researches. The thesis delivers an insight on how VR can be made use in destination marketing by investigating its likely effect on the consumer behavior. For the study they undertook 2 studies, one being lab experiment and the other being field experiment. Initially it was found that VR technology does not have a significant total effect on the consumer’s behavior however a different approach of analysis was done (mediation analysis) which showed that there are indirect effects through enjoyment, predicted actions, mental imagery. The study also concludes that VR when used with high quality equipment can impact on destination marketing.

Iis P Tussiyadiyah, Dan Wang and Chenge (Helen) Jia in the research paper on virtual reality and attitude towards tourism destination depicts how VR can influence to make travel decisions through an investigation about the spatial presence in VR environments and its impact on attitudes towards tourism destinations. The research was carried out by conducting studies on a VR walkthrough with 202 participants which further identified two dimensions of spatial presence. The analysis also revealed that spatial presence affects attitude changes towards tourism destinations post VR.

A very recent study traverse on the potential of Virtual Reality in enhancing and enriching innovation in commercialization, R&D. The author argues that virtual world provides a powerful context for innovation. The paper concludes that there is a great scope for the use of 3D digital ecosystem in information technology and such development will keep pace with the digital culture of next generation. Digital Ecosystem, 3D Virtual world are all set to lead and guide our modern culture for better innovations.
There are 4 main attributes identified, that can give better destination image. The attributes being accommodation, amenities, accessibility and attractiveness. These attributes can lead to a destination attribute quality that further leads to a destination image. These attributes also acts as the pull and push factors which have a prominent role in destination image. All the 4 A’s that are the attributes of destination image acts as a pull factor for the customers to decide upon a destination. Similarly the push factors constitutes of personality and demographic factors. The demographic factors also acts a pull factor.

VR when incorporated within the above said framework can actually lead to better destination image. Accommodation is a place to live, stay or perhaps work. Accommodation is one of the mostly sought attribute with respect to travel. It could be a hotel, or any other place. VR can bring about a solution for accommodation fixing by the tourist through the VR application that guides the tourist for accommodation decision through a virtual watch over of the entire place of accommodation and other amenities at the place of stay.

Amenities are the basic facility, service or resources subject to a place or building or substance like that. VR application acts as a mean for a glance on the amenities pertaining to a particular place or building for the tourist. The application created acts as a source for accommodation decision through a feature to check on the amenities as well. Accessibility is also attained by the VR application designed. It navigates to the location and its attributes and comments on its accessibility.

Attraction is yet another important attribute for destination image. VR enabled attraction shall be made possible by the VR enabled application that depicts on the destination beauty and its attributes that acts as a force for attraction. In order to enhance the beauty the VR is also designed with a sound effect.

All these factors do pull the tourist to a particular destination. The demographic factors that act as a means to push the customers to a specific destination is as a result of the VR enabled mechanics. The push factors are generally those factors that actually forces a person to migrate. As the quality of the attributes of a destination has a positive upward shift there happens to be a positive shift in the destination image.

Hence the above described attributes do play a significant role in creating a better destination attribute quality which in turn formulates a better destination image in the minds of the tourists. Incorporating VR into tourism also creates a momentum impact on addressing the gap between the tourist expectation and the experience of a destination.

IV. CONCLUSION

Here we have discussed about the perceived benefits associated with the incorporation of Virtual Reality in travel and tourism for better destination image. We can conclude that incorporating virtual reality into the travel and tourism sector can bring about a momentum change in the decision pertaining to destinations, its accessibility, can be a productive means to remove the gap between what the tourist expects and what exactly the experiences would be, would be a prior medium for better ecosystem development and revenues for the countries.

V. REFERENCES

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