

A Case Study of the Impact of 360 Virtual Reality on the Destination Image of the 1936 Berlin Olympic Stadium

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Aim

Baud-Bovy and Lawson (1977) define destination or brand image as the expression of all objective knowledge, prejudices, imagination and emotional thoughts about a particular location. Corporations and organizations such as the International Olympic Committee have invested heavily in developing and protecting a strong brand. Thus, the authors wish to address whether, after viewing a brief 6:39 minute, 360 Virtual Reality (VR) film of an international sport tourism destination there is a change of destination image. The sport tourism destination selected for this study was the 1936 Berlin Olympic Stadium.

Theoretical Background

The application of branding research to sport tourism destinations is a growing topic of research. Xing and Chalip (2006) stated: “Hosting a sport event does increase the degree to which a destination is perceived to be an active locale. This finding demonstrates that the mere association of a sport event with its host destination can engender some transfer of image, as theories of co-branding predict.” (p. 69).

When combining the above comments with the VR study done by Tussyadiah, Wang, Jung and tom Dieck (2018), it is possible that 360 VR content can impact the perception of a sport tourism destination. These authors wrote that “the heightened feeling of being there results in stronger liking and preference in the destination.” (p. 140). Further, they noted that their study provided “evidence to confirm the effectiveness of VR in shaping consumers’ attitude and behavior.” (p. 140).

Research Design and Data Analysis

The sport tourism destination selected was the 1936 Berlin Olympic Stadium. It was a sport tourism site made famous by the track and field performance of African-American athlete Jesse Owens whose 4 gold medals challenged Hitler’s claim of Aryan supremacy (Ockerman, 2016). The Berlin Olympic Stadium was recently renovated for the 2008 FIFA World Cup hosted by Germany. The authors participated in a paid tour of the Berlin Olympic Stadium and recorded 360 VR content of key aspects of the interior of the stadium in the fall of 2017. In the spring of 2018, a class of N=48 American college undergraduate students became the study’s participants. Students had an opportunity to self-select this section from three sections of a Foundations of Tourism class. While each section utilized the same textbook, faculties selected various pedagogical components to enhance student learning. This section focused on actively integrating the use of 360 VR content to assess a student’s image perception of select international tourism destinations.

Each student was asked to complete a Destination Image Pre-test with 12 items measured on a 7 point semantic differential scale developed by Hosany, Ekinici and Uysal (2006). This scale and its development were published in the *Journal of Business Research*. It was the number one most frequently cited destination brand scale article (N=745) as reported by Google Scholar. Thus, the authors felt no need to engage in further scale design. The 12 semantic measures were unpleasant-pleasant; distressing-relaxing; ugly-pretty; gloomy-exciting; noisy-

quiet; sinful-innocent; sleepy-arousing; overcrowded-sparse; stagnant-lively; cold-friendly; isolated-easily accessible; and boring-interesting

The students then viewed a 360 VR film based on the Berlin Olympic Stadium tour shot, edited and produced by the authors. Audio commentary was added, partially based upon the tour guide's comments. The students then used inexpensive, VR goggles and their smart phones to view the content via YouTube. After viewing the 6:39 minute, 360 VR film, each student was administered the same Destination Image 7 point semantic scale as a post-test.

Results

After viewing the 360 VR content, student perception on all of the 12 semantic differential scale measures of a destination changed. Some students noted that their destination image opinion improved especially those students that reported a 1/7 score on the boring-interesting measure. On the unpleasant-pleasant measure, the students combined mean score on the pre-test was 4.70 and it increased significantly to a more positive 5.39 score on the post-test. On the gloomy-exciting measure, mean scores actually decreased significantly from 5.34 to 4.80. Student demographic information such as home state, college major, student class, gender, sex, age and race were collected. A more detailed analysis will be presented at the conference.

Implications

This study reflected a change in destination image between a pre-and post-test and confirmed that "presence" can lead to attitude change further supporting the work of Tussyadiah, et.al. (2017). Agencies who are managing potential sport tourism attractions such as an Olympic legacy stadium, may wish to develop commercially prepared 360 VR content as one of many marketing strategies used to shape consumer's attitudes. For a minimal cost, feedback from targeted VR viewers can provide management with venue strengths to promote and weaknesses to address to improve brand imaging. Participants processing information in a brief VR environment also could shape a visitor's "Willingness to visit" the actual environment. This willingness to visit will be presented in future research.

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