
Volume 8
Issue 1 2023 Competition Winners Edition

June 2023

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Recommended Citation

Slevitch, Lisa; Chandrasekera, Tilanka; and Mejia Puig, Luis (2023) "Virtual Reality images as a tool in hotel promotions: is it effective and worth investment?," *ICHRIE Research Reports*: Vol. 8: Iss. 1, Article 3. Available at: https://via.library.depaul.edu/ichrie_rr/vol8/iss1/3

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Virtual Reality images as a tool in hotel promotions: is it effective and worth investment?

Cover Page Footnote

This is a submission for 2023 ICHRIE Research Reports Competition

Virtual reality images as a tool in hotel promotions: Are they effective and worth investment?

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Executive Summary: This report examines how traditional photos compare to two different types of virtual reality (VR) images (static and 360°) when used as promotional tools for hotels. An experimental study conducted by Slevitch et al. (2022) served as the foundation for the report. The results showed that static VR images performed the same way as traditional photos; however, the 360° VR images had a more positive impact on participants' emotional responses and were more engaging than other images. This suggests that 360° VR images are better for hotel promotions in terms of initial impressions, such as interest and excitement associated with engagement and positive affect. The study also showed that using physiological measurements (i.e., fNIR, skin conductivity, and eye tracking devices) can give a more accurate picture of how people feel about something than just asking them in a survey.

KEYWORDS: *Virtual Reality (VR), promotion visuals, psycho-physiological measurements, self-reported measurements, hotels*

VR as a Promotional Tool in Hotels

Virtual Reality (VR) has become a popular tool in the hospitality and tourism industries over the past decade, transforming the way customers experience travel and hospitality-related products and services (De Gauquier et al., 2018). VR enhances the experiential component of decision-making by allowing

customers to examine and "try" the product in question in advance. In the hotel industry context, VR visuals can be particularly beneficial because they reduce uncertainty by allowing potential customers to "experience" the hotel servicescape in advance, thus prompting selection (Guttentag, 2010; Huang et al., 2013). Moreover, the immersive nature of VR images may offer a more engaging and emotional evaluation of the hotel product

from the customer's perspective (Gibson & O'Rawe, 2017).

In the realm of hotel promotions, VR can be used by hoteliers in several ways:

1. *Virtual Tours*: Potential guests can explore a particular hotel without physically visiting it and get a sense of space, décor, and ambiance, helping them to make more informed decisions.
2. *Virtual Experiences*: Hotels can offer virtual experiences to provide a taste of what potential guests can expect in terms of services and facilities during their stay, thus encouraging bookings and enhancing the overall promotional experience. These interactive experiences may include cooking classes, spa treatments, fitness sessions, or guided tours of local attractions.
3. *Personalized Room Customization*: With VR, hotels can enhance personalization and allow potential guests to virtually customize their rooms by selecting different room layouts, color schemes, and amenities, giving them a visual representation of their preferences.
4. *Gamified Promotions*: VR can be used in to create a more interactive and entertaining experience. For example, hotels can offer virtual games such as treasure hunts or challenges that guests can participate in remotely in exchange for rewards, discounts, or exclusive promotions for successful

participants, thus incentivizing engagement and bookings.

To utilize VR in hotel promotions, a hotel marketing team will need VR equipment, content creation tools, basic expertise in VR development, a platform to showcase VR content, budget and resources for VR initiatives, and a strategy and feedback loop for continuous improvement. Having these elements in place will require relatively substantial initial investments but can benefit bookings and enhance overall marketing strategy. Additionally, it is important to note that the adoption of VR in hotel promotions relies on technological progress, cost factors, and the marketing strategies employed by individual hotels. As technology advances and becomes more available, VR has the capacity to transform the methods by which hotels advertise their services, providing potential guests with more captivating and immersive experiences.

Background of the Study

Despite the known benefits, the current understanding of how VR can be used effectively in the hotel industry context is limited. Previous empirical evidence on whether VR images can outperform traditional images as a marketing tool was inconsistent and pointed to the need for further investigations (Bogicevic et al., 2017; Loureiro et al, 2020; Leung et al., 2020; Slevitch et al., 2020 & 2022; Xi et al., 2020). Additionally, the COVID-19 pandemic and travel restrictions have made VR visualizations increasingly common in hotel promotions without empirical verification of

effectiveness. Such major hotel companies as Hilton, Marriott International, Hyatt Hotel, Accor, etc. have been using VR in their promotions (Hotel Management Network, 2023). Therefore, it was crucial to examine the effectiveness of different traditional and VR images as promotional tools to determine if they are worth further investment. Hotel businesses operate in conditions of extreme competition and limited resources, so understanding how their investments in VR promotional tools would produce desired outcomes can help them make prudent decisions.

This report is based on the experimental study that compared traditional photos with two types of VR images, 360° and static (Slevitch et al., 2022). Static VR images were bi-dimensional, similar to a digital flat screen. However, 360° VR images permitted respondents to be immersed in the centre of the image so they could look around at a 360° radius. The study used Cognitive Load Theory (Sweller, 1988) and Pleasure-Arousal-Dominance (PAD) Model (Mehrabian & Russel, 1974) as theoretical frameworks. Cognitive, emotional, attitudinal, and behavioral intention responses were evaluated using both self-reported methods (questionnaires) and psycho-physiological tools (skin conductivity, eye-tracking, and Functional Near-Infrared Spectroscopy (fNIR) devices). Psycho-physiological measures were employed because those are more accurate at capturing immediate affective responses, while self-reported methods tend to capture only high-order emotions and are subject to a variety of biases, i.e., social expectations, a person's feelings, etc. (Li et

al., 2015). Low-level emotional responses, which are more representative of individuals' initial emotional reactions, are better captured when combining both self-reported and psycho-physiological measures. Therefore, both types of measurements were used to achieve a more comprehensive and accurate evaluation of responses to VR stimuli.

Is VR effective in Hotel Promotions?

The results showed that traditional photos and static VR images had similar effects and, therefore additional investments into VR imagery might not be justified in such cases. However, 360° VR images provided a more immersive experience and showed higher physiological stimulation levels than traditional photos or static VR images. Specifically, 360° VR images elicited more arousal and excitement associated with interest and joy, which in turn can positively impact behavioral intentions and attitudes towards the hotel, turning viewers into actual customers. Therefore, it is better to use 360° VR images instead of static VR images or traditional photos to prompt immediate attention and excitement. However, it's important to note that the investment in VR imagery to create those affective responses may not necessarily translate into a booking. The power of 360 VR visuals alone may be limited in terms of influencing customer attitudes and behaviors as other factors may be at play (i.e., price, convenience, location, etc.). Therefore, hotel practitioners should not solely rely on the use of VR visuals to improve these metrics, but instead consider

a comprehensive marketing strategy that includes other elements as well. Using 360° VR images can be an effective tool for creating the initial positive impression that combined with other hotel features may turn potential customers into actual ones.

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Editors' Note: This Research Report was selected as the third-place winner in the 2023 *ICHRIE Research Reports* competition.