Is Virtual Store Experience an Actual Store Experience? The Role of Telepresence

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Background and Research Purpose With an increase in experiential marketing, virtual reality (VR) serves as an effective communication tool beyond advertising (Monllos, 2017). Companies can virtually project their store environments, enabling consumers to experience stores without physical visits. However, the literature on experiential marketing has mainly focused on physical or online store experiences, and little is known about whether VR can actually provide consumers adequate store experience. Telepresence, which is defined as "the compelling sense of being present in a mediated virtual environment" (Kim & Biocca, 1997), plays an important role of connecting virtual worlds and consumers' responses. We consider telepresence as an antecedent to explain how VR creates store experience for consumers. This study aimed to examine whether VR-driven telepresence leads consumers to have a store experience and whether such an experience consequently generates a desire in consumers to physically visit the store. Additionally, we analyzed consumers' VR store experience through text analytics.

Literature Review and Hypotheses Development Aroused by store-related stimuli, consumer responses related to store experience are as follows: "sensations, feelings, cognitions, and behavioral responses" (Brakus et al., 2009, p. 52). It consists of four dimensions: sensory, affective, behavioral, and intellectual store experience. Feeling present enables consumers to feel more attentive and immersive (Ettis, 2013). In a VR context, people tend to be more involved in the shopping experience under greater telepresence (Pizzi et al., 2019). Therefore, we posit that when consumers feel telepresence virtually, they feel a heightened sense of the store experience. Hence, *H1: Telepresence positively leads the (a) sensory, (b) affective, (c) behavioral, and (d) intellectual store experience.*

Telepresence mediates VR characteristics (e.g., vividness, interactivity) to consumers' responses (e.g., attitude, satisfaction) (Cowan & Ketron, 2019; Jang et al., 2019). Specifically, VR-evoked telepresence positively affects tourists' visit intention to a physical location (Wei et al., 2019). Thus, *H2: Telepresence positively leads willingness to visit the store.*

Consumers' experiences led their positive responses (Brakus et al., 2009; Klein et al., 2016). In the VR context, shopping experience increases patronage intention (Pizzi et al., 2019). Hence, we expect that all four dimensions of the VR-driven store experience evoke a desire in the consumers to visit the actual store. *H3: (a) Sensory, (b) affective, (c) behavioral, and (d) intellectual store experiences positively enhance consumers' willingness to visit the store.*

Experiencing a store is a process that goes from a multi-sensory perception to interpersonal brand participation (Schmitt, 2012), resulting in more elaborate information processing (Brakus et al., 2009; Keller, 1993; Klein et al., 2016). To add to the telepresence, consumers who feel greater store experience will, thus, desire a greater level of involvement in

the shopping. Hence, when people feel telepresence, they are more likely to visit the store physically for the store experiences, stating *H4: (a) Sensory, (b) affective, (c) behavioral, and (d) intellectual store experiences mediate the effect of telepresence on willingness to visit the store.*

Methods For the experiment, stimuli (VR store videos) were developed by authors from a local fashion boutique. A total data of 106 samples was collected from college students using convenience sampling. The participants visited VR facilities at the university library and explored the VR store video stimuli using VR headsets. They moved and walked around the store while experiencing the eight one-minute VR videos presenting different parts of the store. Then, they completed an electronic questionnaire. The survey questions were developed from previous studies. Each scale used a 7-point Likert scale (1= "strongly disagree" to 7= "strongly agree"). The previous VR experience, a control variable, was measured by Yes or No. Additionally, for semantic analysis that assesses respondents' opinions about the VR experience, the participants responded to an open-ended question, as follows: "How was this VR store experience?".
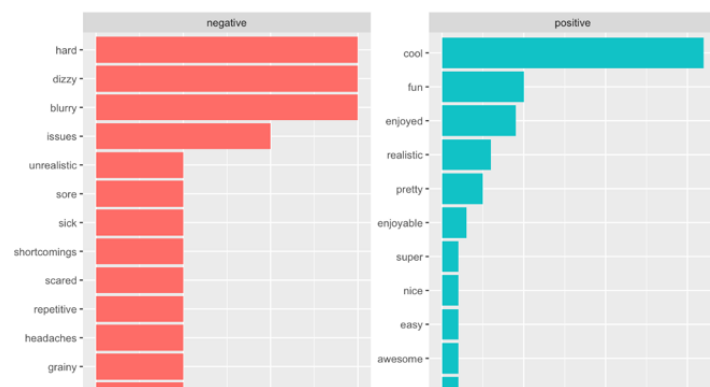

Figure 1. Sentiment analysis results: Commonly used negative vs. positive words

Results Regression analyses confirmed the acceptance of H1a (β = .43***), H1b (β = .25*), H1c (β = .33**), and H1d (β = .41**). H2 (β = .45***) as well as H3a (β = .44***), H3b (β = .28***), H3c (β = .26**), and H3d (β = .35***) were all supported. The PROCESS version 3.3 for SPSS (Hayes, 2014) was used to test the mediation analyses (H4). The analysis results supported H4a (β_{direct} = .31**, $\beta_{indirect}$ = .14*), H4c (β_{direct} = .39***, $\beta_{indirect}$ = .06*), and H4d (β_{direct} = .34**, $\beta_{indirect}$ = .10**), but H4b (β_{direct} = .39***, $\beta_{indirect}$ = .06) was not supported. As both the direct and indirect effects were discovered, H4a, H4c, and H4d revealed partial mediation effects.

Sentiment Analysis and Text Analytics of Participants' Opinions about VR Store Experience
The sentiment analysis and text analytics were conducted using the Tidytext package in R studio. The sentiment analysis (Figure 1) was used to gain emotional opinions (i.e., positive or negative) using the Bing lexicon (Liu, 2012). The results revealed 82.30% positive and 17.70% negative words. We further conducted a semantic network analysis to explore what two words were commonly reported together. We identified several pairs of representative positive topic words, which are as follows: "experience; store", "feel; store", "cool; store", "experience; cool", "actual; store", and "enjoyed; experience". The negative opinion was "bit; dizzy". Figure 2 presents how the words are related.

Discussion The findings indicate that VR telepresence can lead experiential responses and, consequently, the willingness to visit the actual store.

That is, consumers perceive experiencing a store through virtual environments if they feel they
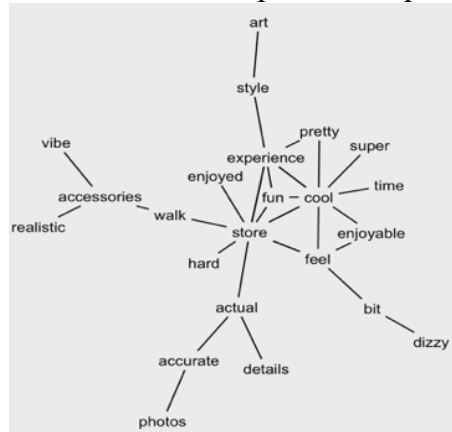

are in the store (i.e., telepresence). Although the affective store experience did not mediate the telepresence on visit intention (H4b), semantic analyses results revealed that consumers felt more positive emotion than negative toward the VR experience. As the VR store experience is connected to words such as "cool, feel, actual, and enjoyed", we confirmed that VR can lead experiential responses like actual store experiences. Theoretically, we extended the construct of the store experience to the VR context that was limited to physical or online stores. For retailers, we discovered how to boost store experience and induce customers to come to the store. Based on the text analytics results, we recommend that retailers create more realistic but less dizzy VR environments.

Figure 2. Semantic network analysis result

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