

## Enhancement of self-evaluation through VR fashion shopping

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As the COVID-19 continues to spread, identity threats are also on the rise. The virus makes people anonymous in the digital network and even in the real world with facial masks. The identity crisis is continuously growing, particularly among young people at the start of making their identity as a student or professional (The Guardian, 2020). According to the uncertainty–identity theory (Hogg, 2007), uncertainty about the self makes people feel uncomfortable, and reducing subjective uncertainty is a fundamental and powerful human motivation. The social, economic, and job uncertainty are related to identity disturbance, which leads to a decrease in psychological well-being again (Godinic et al., 2020).

Meanwhile, shopping plays an important role in consumers' well-being (Hedhli et al., 2013). In the retail industry, consumers have been buying products crossing the boundary between real and virtual. Now, the pandemic is pressing consumers to switch their retail channels from offline to online. Under these circumstances, immersive technologies, such as virtual reality (VR), allowing users to experience objects and spaces as if they were real, are expected to contribute to coping with this changing retail market. At this point, the current study aims to explore the impact of this new retail channel on consumers' well-being.

*The impact of self-imagery through VR fashion shopping:* One of the most unique VR experiences is the feeling of “being there,” and advanced immersive technologies bring this “telepresence” experience to the next level. In relation to the consumer's information processing process, the sense of telepresence entails the elaboration of thinking through the reproduction of memories, predictive construction, or activation of imagination (Kim & Biocca, 1997). Empirical research showed that immersive retail environment such as VR store, that can provide high telepresence, could evoke vivid self-imagery of using products in the shopping context. Li et al. (2001) also confirmed that telepresence is the basis of the virtual shopping experience and discussed that virtual shopping environments makes consumers' mental images more realistic and sophisticated. This is the key mechanism of impact of immersive technology results in positive responses (Overmars & Poels, 2014).

*Strategies for the Self-Verification through Self-Imagery:* Here, notably, self-imagery is a proven effective method for restoring the self in clinical and non-clinical mental illness (Farrar et al., 2015; Harlowe et al., 2018). Self-imagery can improve one's self-evaluation through self-

concept clarity related to psychological well-being (Harlowe et al., 2018). Much research found that self-concept clarity enhances one's core self-evaluations (Bechtoldt et al., 2010), which are consist of self-esteem, generalized self-efficacy, internal locus of control, and emotional stability. In addition, for online shopping, fashion has been the most popular category to date (Statista, 2020). Regarding that fashion products have their importance as a means of communication that reveals and reinforces the identity of the wearer (Solomon, 1988; Goldsmith et al., 1999), VR fashion shopping is expected to have an important role to secure consumers' self-concept for elevating their self-evaluation by generating vivid self-images.

*Hypotheses development:* VR has been actively used in treating mental health for more than a decade and has been proven to be effective (Valmaggia et al., 2016). By applying this to the shopping context, the current research proposes the self-verification effect of fashion shopping in VR store. This research examines if VR fashion shopping experience can elevate consumers' self-esteem through vivid self-imagery and self-concept clarity. Based on the literature review, we proposed hypotheses as follows:

H1. Perceived telepresence in VR experience will positively influence a) self-imagery, b) self-concept clarity, and c) state self-esteem.

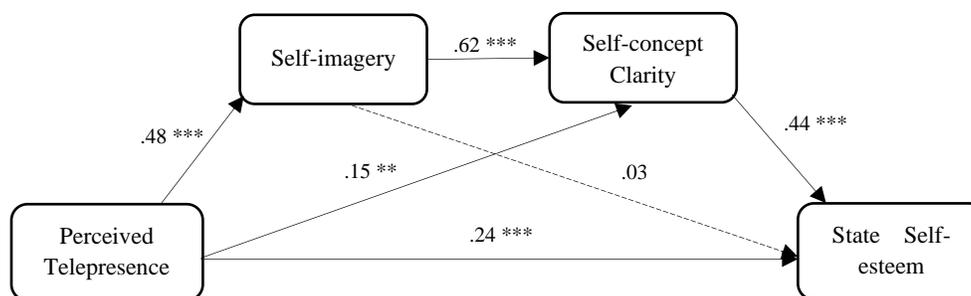
H2. The effect of telepresence on state self-esteem will be mediated by a) self-imagery and b) self-concept clarity, respectively.

H3. The effect of telepresence on state self-esteem will be mediated by self-imagery and self-concept clarity sequentially.

This study collected online panel data from Amazon M-turk platform. The subjects were asked to experience a fashion-brand VR store through a computer monitor and their responses were measured. Four VR fashion stores were used as the stimuli, and participants were randomly assigned to one of the four stores. A total of 573 responses were collected, and the data was analyzed by using SPSS 26. The sample consisted of female (n=228, 39.8%) and male (n=345, 60.2%) participants. The reliability coefficients confirmed the internal consistency of perceived telepresence, self-imagery, self-concept clarity, and state self-esteem, respectively (.83, .71, .82, .67) (Nunnally & Bernstein 1994).

To test the effect of perceived telepresence on self-imagery, self-concept clarity, and state self-esteem, a sequential mediation analysis was conducted by using model 6 in Process SPSS Macro (Hayes, 2013). The direct paths from the perceived telepresence to self-imagery ( $\beta = .48$ ,  $SE = .04$ , 95% CI = [.39, .56],  $p < .000$ ), self-concept clarity ( $\beta = .15$ ,  $SE = .04$ , 95% CI = [.07, .24],  $p < .001$ ), and state self-esteem ( $\beta = .24$ ,  $SE = .04$ , 95% CI = [.17, .31],  $p < .000$ ) were significant, respectively. The effect of perceived telepresence on state self-esteem was not

mediated by self-imagery ( $\beta = .02$ ,  $SE = .03$ ,  $95\% CI = [-.04, .07]$ ), however, was mediated by self-concept clarity ( $\beta = .07$ ,  $SE = .03$ ,  $95\% CI = [.02, .13]$ ). Further, the sequential mediation effect between perceived telepresence and state self-esteem via self-imagery and self-concept clarity was significant ( $\beta = .13$ ,  $SE = .03$ ,  $95\% CI = [.08, .18]$ ).



This study attempted to validate the effect of VR fashion store experience on consumers' self-evaluation by considering the self-verification mechanism. The results found that telepresence, the unique and core experience in the VR environment, positively impacted self-imagery, self-concept clarity, and state self-esteem. Also, the impact of telepresence on the state of self-esteem was sequentially mediated by self-imagery and self-concept clarity. Now, as VR technologies become more popular with the public, such technologies are changing the shape of our daily activities, providing new experiences. Our findings are meaningful in that empirically tested and proved the impact of VR fashion shopping on consumer well-being in part, by adopting practices from cognitive treatment and behavioral therapy. This research also suggests that further research is required to understand and find more broad impacts of immersive retail environments on consumers' well-being.

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