



Acceptance of VR Shopping: Examining the Role of Technological Characteristics and Consumer Fashion Involvement

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Keywords: Virtual reality, Vividness, Interactivity, Technology acceptance

The recent emergence of new shopping trends that merge online and offline sales channels highlights the impact of cutting-edge technology on retail channels. In this respect, virtual reality (VR) has attracted attention as a key technology for future shopping platforms. The greater recognition of the importance of VR is driving retailers to incorporate it into their distribution channels. This trend warrants research regarding consumers' intention to embrace VR technology on the new fashion retail platform. The present study examined the effect of vividness and interactivity, the two technical characteristics of VR, and fashion involvement, a consumer characteristic, on consumer's intent to use VR stores under the framework of the Technology Acceptance Model (TAM). The study explained consumers' belief in a new technology and the process underlying their actual use behavior.

Two important technical characteristics that affect a virtual experience are vividness, which refers to the ability of a technology to create a sensorially rich environment in delivering information to users, and interactivity, which is the extent to which users can influence the form or content of the mediated environment (Steuer, 1992). The present study hypothesized that these characteristics would affect consumers' beliefs and usage intention when they use VR stores. Fashion involvement is defined as the individually perceived importance of and interest in fashion products, given the overall circumstances governing the purchase of fashion products (Choo et al., 2014). Greater fashion involvement induces more active researching before purchasing products, often leading to more innovative activities (Lee, 1984), and subsequently inducing shoppers to behave more proactively and voluntarily. Hence, the present study theorized that fashion involvement would affect consumers' acceptance of VR stores operated by fashion brands.

The present study sought to examine the influence of the technological characteristics of VR and fashion involvement on the perceived usefulness, ease of use, and playfulness during VR shopping and to verify their influence on usage intention. The subjects of the present study were asked to experience a commercially available fashion-brand VR store through a computer monitor and their responses were measured. The VR store used as the stimulus was the Nike VR Store managed by Hyundai Department Store. It recreates the actual offline store *as is* by using a 360-degree camera and thereby achieves a high degree of realism and immersion. This study collected panel data from an online research company. A total of 200 data sets were collected from consumers in their 20s and 30s, which are the age groups that demonstrate a relatively high degree of familiarity with the use of new technology for shopping. Structural equation model analysis was conducted on the collected data by using AMOS 20.0.

The results revealed the effects of the technological characteristics of the VR store on consumer beliefs. The higher the perceived vividness of the VR store, the greater the perception that it is easy to use and playful. A higher level of perceived interactivity meant a higher degree of perceived usefulness, ease of use, and playfulness. The results also showed that consumer fashion involvement had a significant impact on perceived playfulness but not on perceived usefulness and ease of use. In addition, a higher degree of perceived ease of use translated into a higher level of perceived usefulness. Regarding the effect of consumer beliefs on usage intention, the more the VR store was perceived as being useful and the greater the playfulness derived from the experience, the higher the consumer intention to adopt the shopping platform. However, the perceived ease of use had a significantly negative impact on consumer usage intention.

The present study examined the impact of vividness and interactivity and fashion involvement on the consumer intention to adopt VR shopping through the expanded TAM model, which incorporates playfulness as a belief variable. It was found that a greater level of interactivity perceived by the consumer through VR shopping had a positive impact on usefulness, ease of use, and playfulness, all of which have a crucial influence on technology acceptance. Moreover, among shoppers' beliefs, playfulness had the strongest impact on usage intention. Sensorial and emotional product experience is important for fashion consumers (Blázquez, 2014); it is therefore important to provide them with sufficient interactivity and playfulness to induce their acceptance of a new shopping platform. Meanwhile, ease of use negatively affected usage intention. This shows that, even if VR stores are perceived as easy to use, a lack of perceived benefits, such as usefulness or playfulness, will negate their positive impact on consumer usage intention.

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