Consumer Adoption of Virtual Fitting Rooms (VFRs): A Perspective of Past Experience, Fashion Involvement, and Shopping Involvement

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Introduction In line with the growing popularity of e-commerce since the beginning of the Covid-19 pandemic, Virtual fitting rooms (VFRs) are increasingly used in online fashion stores to combat the key problem of online apparel shopping – lack of try-on experience (Dopson, 2021). While consumers are increasingly getting chances to and starting to try out VFRs, it is not yet widely adopted by consumers (Berthiaume, 2021). To uncover the reasons behind the slow adoption of VFRs, it is important to fully investigate the influential factors that explain consumers’ varying VFR perceptions and adoption intention. However, research fully investigating the influences of external factors, such as individual differences in experience/skills and personal traits, is limited despite its power to explain varying consumers’ perceptions and experiences (McKechnie et al., 2006). As VFRs are used for fashion shopping and currently in the process of consumer adoption, it is critical to take into account the users’ product category (fashion) involvement, intrinsic (shopping) involvement, and past experience with VFRs, which were found to play a profound role in consumers’ online fashion shopping and technology acceptance behaviors (Kim et al., 2007; McKechnie et al., 2006). Thus, this study aims to investigate the influences of consumers’ past experience, fashion involvement, and shopping involvement on their perceptions and subsequent adoption intention toward VFRs.

Literature Review According to the Technology Acceptance Model (TAM) (Davis, 1989; Davis et al., 1992), consumers’ decision to adopt a technology is predicted by their perceptions of values offered by a technology. With VFRs, consumers can have more product-related information in the pre-purchase stage (Merle et al., 2012). VFRs can also offer advanced interactive features (e.g., mix-and-match, social sharing), enabling consumers to have enjoyable and social experiences (Zhang et al., 2019). Consistently, several researchers identified functional, experiential, and social values, as important in understanding consumers’ adoption of VFRs (Lee et al., 2022; Zhang et al., 2019). Functional values encompass perceived usefulness, ease-of-use, and functional concerns, whereas experiential value refers to enjoyment, control, and curiosity (Lee et al., 2022; Lee et al., 2020). Social values refer to social benefits offered by VFRs through meeting the social/expressive needs (Lee, 2021). The TAM also suggests that consumers’ perceptions can be affected by external factors (Legris et al., 2003). Among several external factors, researchers found past experience and involvement to be particularly important to examine when a novel technology is used for online shopping/retailing purposes (McKechnie...
For example, consumers who exhibit higher levels of involvement with fashion or shopping are more interested in and likely to be knowledgeable about the category or shopping activities, hence, are in a better position to understand the nature of fashion shopping technology, perceiving less risks associated with it (Lee, 2021; McKechnie et al., 2006). Similarly, we expect to see differences in consumers’ VFR perceptions to be influenced by past experience, associated with individual’s levels of knowledges (McKechnie et al., 2006).

**Methodology** Data were collected via an online survey from a convenience sample of 480 consumers aged between 21 and 64, who have experienced online apparel shopping and at least heard of VFRs in the past. More than a third (35.8%) of the respondents indicated they have experienced VFRs in the past. The survey included 7-point Likert scales with items adapted from existing scales with acceptable reliabilities (α>.70). The analysis was based on 11 latent variables and two control variables (age and gender), and PLS-SEM in SmartPLS 3.0 was used for the analysis (Figure 1).

**Results** Both the measurement model and the structural model showed acceptable fit (Figure 1). The SEM results suggested positive influences of perceived usefulness (PU) (β=.186), ease-of-use (PEU) (β=.112), enjoyment (PE) (β=.288), curiosity (PCR) (β=.194), and social benefits (PSB) (β=.151) on adoption intention (AD) toward VFRs, whereas perceived functional concerns (PFC) and control (PCT) did not show significant influences. Past experience (PEX) showed significant influences on PEU (β=.083), PFC (β=.102), PSB (β=.090). Fashion involvement (FI) had significant influences on PU (β=.182), PEU (β=.178), PE (β=.161), PCR (β=.272), and PSB (β=.277). Shopping involvement (SI) showed significant influences on perceived functional values (β=.351; β=.365; β=.225 respectively), experiential values (β=.513; β=.390; β=.381 respectively), and social values (β=.313).
Conclusion The results of this study give empirical supports to the multifaceted and integrative nature of consumer experience, identifying functional, experiential, and social values as the key determinants of consumers’ VFR adoption. In this respect, VFR providers should further excel on the three values with enhanced VFR design. Further, the results suggest fashion retailers to consider consumers’ prior experience, fashion involvement, and shopping involvement as segmentation bases. It appears that the chances of consumer adoption can be higher when targeting those who have an intrinsic interest in fashion and shopping. Additionally, VFRs providers should continuously strive to enhance core functionality as experienced users perceived functional concerns despite the ease of use.

References