A Study of Key Factors Influencing the Attitude of Adaptive Clothing Consumers toward Purchase Online

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Introduction: Adaptive clothing is "a special clothing design made for people with impairment, who face dfficulties in dressing themselves" (Azher et al., 2012). It incorporates features such as magnetic fastening, and elastic waistband, which make it easy for people to put on/take off. Therefore, it promotes the independence and dignity for people with disabilities (Rutledge, 2017). And it improves the quality of life for those people by making it easier for them to participate in social activities (Kabel et al., 2016). However, consumers have limited shopping channels to access adaptive clothing. People with mobility disabilities and elderly persons may encounter difficulties in transportation, parking, and reaching items while visiting brick-mortar stores (Haines, 2021). Nowadays, more and more adaptive clothing consumers choose to shop online (Annett-Hitchcock & Xu, 2015). Many retailers also choose to launch adaptive clothing lines through e-commerce channels. The Internet has eliminated physical barriers and increased the inclusion of people living with disabilities in the virtual world (Annett-Hitchcock & Xu, 2015). Although research efforts have been taken to explore consumers' needs and wants in adaptive clothing online shopping experience (Li et al., 2023), there is few studies investigate the factors that influence consumers' attitude toward purchase adaptive clothing online. Therefore, this study aims to empirically analyze how the online adaptive clothing characteristics affects customer perceived value and their attitude toward adaptive clothing online shopping

Literature Review: Considering the unique characteristics of adaptive clothing, the FEA model proposed by Lamb and Kallal (1992), was utilized in this research. According to this model, clothing consumers' needs and wants can be evaluated from three perspectives (Lamb & Kallal, 1992). Functional considerations relate to the utility of clothing, including protection, fit, and comfort. Expressive considerations concern the communicative and symbolic aspects of clothing in social contexts. While aesthetic demands are related to customers' desire for beauty. When consumers search adaptive clothing online, the perceived characteristic of the clothing will influence customer perceived benefit/risk. Meanwhile, the Technology acceptance model (TAM) (Legris et al., 2003) was also brought in to help examine the factors that directly or indirectly affect consumers' attitudes to use online channel to purchase adaptive clothing. According to TAM, perceived usefulness and perceived ease of use are the antecedent variables of usage attitude, which also has been widely examined and supported. Previous research has found that perceived risk and perceived enjoyment is highly related to the perceived usefulness and perceived ease of use, thus indirectly influencing attitude and intention (Lee et al., 2019). In this

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research, the FEA theory and TAM theory was combined through perceived value, to empirically test how the display of adaptive clothing online could affect consumers' attitude.

Research methods: Through Amazon Mechanical Turk, survey data was collected from 434 consumers between ages 18 and 64, who have adaptive clothing purchase experience. The majority of the participants were male (56.5%), 25-45 years old (73.5%), Caucasian (74.6%), with annual income between $50,000~ $75,000 (31.8%). The survey included 7-point Likert scales with items adapted from existing scales with acceptable reliabilities ($\alpha > .70$). Then, structural equation modeling was conducted to examine the proposed relationships.

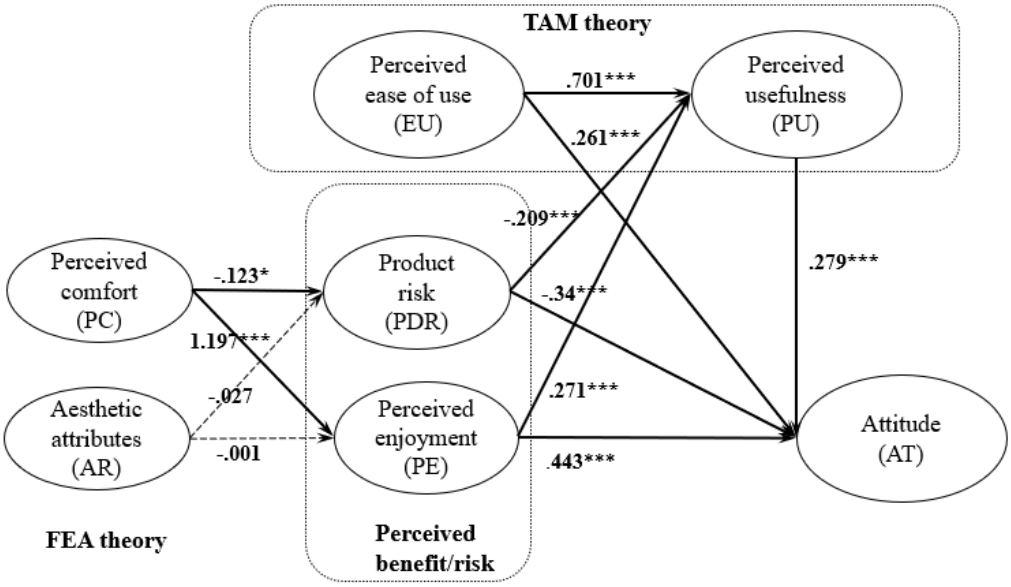

Figure 1. SEM result

Results: Both the measurement model ($\chi2$=382.907, df=204, p=.000, SRMR=.039, TLI=.946, CFI=.957) and the structural model ($\chi2$=404.414, df=211, p=.000, SRMR=.044, TLI=.944, CFI=.953) showed acceptable fit. The SEM result (Figure 1) suggests positive influence of perceived comfort (β=1.197, P<.001) on perceived enjoyment, and negative influence of perceived comfort (β=-.123, P=.011) on perceived online product risk (H1a, H1b, supported). It also suggested that there is significant effect of perceived ease-of-use (β=.701, P<.001) and perceived enjoyment (β=.271, P<.001) on perceived usefulness (H2c, H3a, supported). At last, ease-of-use (β=.261, P<.001), usefulness (β=.279, P<.001), enjoyment (β=.443, P<.001) all have significant influence on consumers' attitude of adaptive clothing online purchase (H2d, H3b, H4, supported). AR did not show significant influence on perceived enjoyment and perceived online product risk.

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Conclusion: This study combined FEA theory and TAM theory to reveal the key factors that influence the attitude of adaptive clothing consumers toward online purchase. Even though consumers mentioned that they desire more colors/patterns and fashion styles in adaptive clothing in their customer reviews (Li et al., 2023), the findings suggest that the perceived comfort of adaptive clothing plays a vital role in mitigating consumer perceived risk and enhancing perceived benefit in online shopping. And perceived enjoyment acts as a mediator between perceived comfort and attitude. This study also shed light on how to improve the online experience of adaptive clothing consumers. Online adaptive clothing retailers could provide virtual try-on, introductory videos, and high-resolution images to show the fabric texture and present the comfort features of the clothing. Future study would include the adaptive clothing customers' perception of web features/navigation to further understand the effect of web design on their online experience.

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