Exploring Antecedents of Online Flow in Shopping for Apparel Products

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Online flow has been regarded as the optimal experience that consumers can undergo on a shopping Website. Recent studies have demonstrated that consumers reaching the state of online flow on a brand's Website have a positive impression on the brand, buy the brand's products, and further establish a long-term, strong relationship with the brand (Hsu, Wu, & Chen, 2013; Shim, Forsythe, & Kwon, 2015). As compared with the consequences, antecedents of online flow have been less identified in the context of apparel shopping. Theoretically, an individual's skills in performing a task and perceived challenge of the task have been known as the antecedents of a flow state. According to flow theory (Csikszentmihalyi, 1991), the flow can be reached when a task has a considerable level of difficulty, but an individual has the ability to manage the task. The positive, direct effects of skills and challenge on flow have been verified in a few studies about online system usage (e.g., Hoffman & Novak, 2009). However, if skills enable an individual to manage a challenging task, skills probably have an inverse relationship with perceived challenge, increasing uncertainty of how skills and challenge separately would lead to flow. A prior finding suggests that skills interact with perceived challenge, helping apparel shoppers experience the state of flow on an apparel brand's Website (Shim et al., 2015). However, in the context of online shopping of apparel products, more diverse dimensions of skills and challenge may exist because online shopping includes multiple tasks (e.g., zoom-in/out of product images, use of shopping cart, payment) in addition to online search. Thus, we postulate that skills and perceived challenge generally have positive effects on online flow in the context of online shopping for apparel products, but in a dimensional level, the relationships may show a more complex pattern. Thus, the purpose of this study was to explore the role of various dimensions of skills and challenges as antecedents to flow in online apparel shopping.

An online survey was conducted with a national sample of 500 female online shoppers in the U.S. Participants conducted a shopping task on the Website of an apparel brand, randomly assigned among top private-label apparel brands targeting female adults. After finishing the shopping task, the participants completed 11 items measuring three factors (Online Shopping Skill, Clothing Shopping Skill, General Shopping Skill,) of apparel shopping skills (Shim et al., 2015), 16 items for three factors (Ecommerce Challenge, Retailer Challenge, Product Challenge) of apparel shopping challenge (Shim, 2016), and 23 items for three factors of online flow (Telepresence, Autotelic Experience, Control) (Shim et al., 2015). Confirmatory factor analysis (CFA) with maximum likelihood was conducted to verify the validity of the scales, which revealed no validity issues (i.e., all Cronbach's αs and composite reliability values > .70, all average variance extracted (AVE) values > .50, and all square root of AVEs > inter-construct correlations for each latent variable). Another CFA was conducted to explore the relationships among three dimensions of skills and three dimensions of challenges. The result verified the inverse relationships between the skill dimensions and the challenge dimensions (χ^2_{309} = 980.25, p < .001; TLI = .93; CFI = .94; RMSEA = .07). A series of structural equation modeling was subsequently conducted. The results showed that Online Shopping Skill and Clothing Shopping

Skill generally had positive effects on flow dimensions, but General Shopping Skill did not (χ^2_{515} = 1447.07, p < .001; TLI = .92; CFI = .93; RMSEA = .06). Online Shopping Skill positively influenced Autotelic Experience (β = .18, p < .01) and Control (β = .41, p < .001), whereas Clothing Shopping Skill positively influenced all the three dimensions of online flow (Telepresence: β = .42, p < .001; Autotelic Experience: β = .50, p < .001; Control: β = .33, p < .001). It is notable that General Shopping Skill had a negative effect on Autotelic Experience (β = -.18, p < .01), opposite to the flow theory. The effects of challenge dimensions on flow dimensions showed a more complex pattern (χ^2_{690} = 2293.96, p < .001; TLI = .90; CFI = .91; RMSEA = .07). Ecommerce Challenge had a positive effect on Telepresence (β = .33, p < .001) but a negative effect on Control (β = -.41, p < .001). Retailer Challenge had negative effects on Autotelic Experience (β = -.27, p < .05) and Control (β = -.19, p = .05), whereas Product Challenge had positive effects on Autotelic Experience (β = .19, p < .05) and Control (β = .22, p < .01).

The findings suggest that positive triggers of flow in online apparel shopping are Online Shopping Skill, Clothing Shopping Skill, and Product Challenge and demonstrate that skills and challenges do not always positively influence flow, extending the flow theory. Overabundant general shopping experiences and a lack of retailer services can make consumers' shopping experiences too boring and too challenging, respectively, for the consumers to reach a flow. These potentially negative skill and challenge effects have been seldom reported in prior studies. Further, this study reveals that difficulties in online shopping itself may evoke consumers' feeling of being present on a shopping Website but simultaneously being out of control. This finding highlights the necessity of convenient Website functions that provide consumers with better control over the shopping trip. This study may be limited in that only direct effects of skill and challenge separately on online flow were examined. Future studies examining the interaction effects of skill and challenge on online flow will further elaborate the flow theory in the context of online apparel shopping.

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