

The Role of Shopping Orientations and Intrinsic Experiential Value in Consumers' Willingness to Follow Embodied-AI's Advice in Fashion Shoe Stores

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Introduction and Theoretical Background: The pivotal technologies of Artificial Intelligence (AI) that have exerted a significant impact on the fashion retail industry are Natural Language Processing (NLP), computer vision, machine learning, speech recognition, and robotics (Christensen & Hooker, 2000). In fashion retail stores, these core technologies of AI have enabled companies to develop and employ an embodied tangible agent that can speak, move, and interact in real space, referred to as embodied-AI (EAI). In the past, humans served as the primary source of fashion advice, but at present, EAI advisers have become prevalent in both research and business practice. Although EAIs lack any rapport and personal stake in interactions, and may not always provide optimal solutions, they are increasingly augmenting human decision-making, as they are less prone to act with self-interest and distorted moral judgment (Cui, van Esch, & Jain, 2022). Therefore, it is critical to understand the way that the introduction of EAIs in fashion stores influences or changes consumers' perception of their intrinsic experiential value and willingness to follow an algorithmic recommendation. Further, this study employs a synthesis of Ryan and Deci's (2000) Intrinsic Motivation Theory with Darden and Reynolds's (1971) conceptualization of three shopping orientations, namely "adventure," "idea," and "personalized" shopping, in order to examine their potential influence on individuals' motivation towards shopping (Y.-K. Kim, Lee, & Park, 2014). Notwithstanding, the distinctive preferences and perceptions of individual consumers concerning shopping can be molded by their pronounced sense of fashion leadership, thereby exerting a significant influence on their respective social networks (H.-S. Kim & Hong, 2011). Furthermore, divergent shopping orientations may give rise to varying assessments of intrinsic experiential value, specifically the degree of pleasure derived from utilizing EAIs (Song & Kim, 2020). Intrinsic motivation often leads consumers to participate actively in an activity, and their satisfaction is likely to be heightened as a result (Ryan & Deci, 2000). Guided by these tenets, we proposed that consumers' experiential value of intrinsic enjoyment is an indispensable mediator that affects their willingness to follow EAI's advice in fashion shoe stores. To test these assumptions, this study proposed the conceptual framework for EAIs in fashion shoe stores shown in Figure 1.

Methods and Analytic Strategies: The study utilized the following five methodological approaches to assess the hypotheses: (1) 14 personal interviews; (2) NLP text analysis of the interview data; (3) a video-based stimulus; (4) content analyses and a pretest, and (5) Structural Equation Model (SEM) analysis of the empirical data. An online survey was conducted, which was distributed to consumer panelists maintained by a market research agency, and a total of 455

responses were retained for the main SEM analysis. The respondents were distributed evenly between genders (47.3% female), and their median age was 39. They were distributed widely along the income spectrum, with a median annual household income of \$60,000-\$79,999. All scale items were modified from existing scales and measured on a 5-point Likert-type scale.

Results: We conducted a confirmatory factor analysis (CFA) to validate the measurement model and evaluated the construct validities using *r* v. 4.2.3. and verified them with Mplus v. 7.31. All factor loadings were greater than .50 (range from .69 to .92). Further, the construct validities were evaluated with both convergent and discriminant validity. A SEM analysis was conducted to test H1a - H3, and its goodness-of-fit statistics were satisfactory: $\chi^2(128) = 320.75, p < .001$; CFI = .97; TLI = .97; RMSEA = .06. All path coefficients were significant ($p < .001$), and thus supported all hypothesized relations in the structural model (H1a - H3): $\beta = .74$ (H1a); $\beta = .90$ (H1b); $\beta = .63$ (H1c); $\beta = .23$ (H2a); $\beta = .18$ (H2b); $\beta = .28$ (H2c); $\beta = .88$ (H3) (Figure 1). In addition, the NPL text analysis extracted the following insights from the data collected in the unstructured interviews: (1) the highest relevance percentage of “emotion” in the concept extraction (.98), and (2) the highest relevance percentage of “joy” in the classification of emotion from the hypothetical experience with a video-based stimulus. Figure 2 illustrates the percentage ratios of the classified emotions identified in the interviews.

Full Interview Data Emotion %	Video Stimulus Emotion %
Sadness 22.5%	10.01%
Joy 53.72%	61.67%
Fear 6.52%	5.22%
Disgust 3.19%	8.31%
Anger 9.39%	10.95%

Figure 2. Natural Language Processing Text Analytics: Emotion Percentages

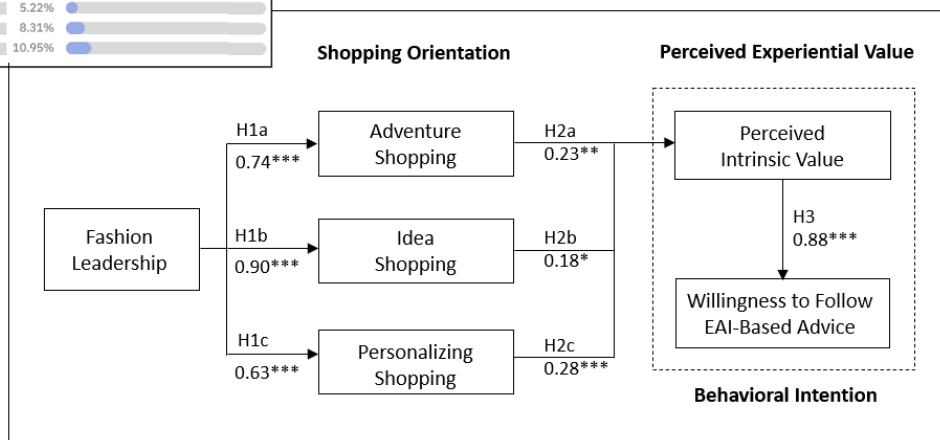


Figure 1. Research Model

Conclusion/Implications: The study offers novel insights into the way that consumers’ characteristics of influencing others’ clothing consumption affect their shopping motivations to find adventure and stimulation, keep up with new fashion trends and products information, and their preference to patronize stores and interact with store staff on a personal level. Second, as EAIs in retail stores are intended to aid and enhance consumers' shopping experience, it is crucial

to gauge the impact of shopping orientations on their intrinsic enjoyment to accurately evaluate users' responses to a video-based EAI stimulus. Hence, we proposed the intrinsic value as a key mediator in our research model (Figure 1) and found that the three orientations of “adventure,” “idea,” and “personalizing” shopping affected consumers’ intrinsic enjoyment significantly. Third, although human staff, friends, and family have traditionally offered shopping guidance, the employment of AI-based advisors has become increasingly common in fashion retail operations. Specifically, our study establishes that a heightened perception of intrinsic enjoyment facilitates greater compliance with EAIs’ advice in the context of fashion shoe stores. Finally, the results of NPL text analysis demonstrated the pivotal function of the underlying enjoyment that shapes consumers' perceptions of EAIs. Discerning the mechanisms that regulate consumers' willingness to follow EAI-generated recommendations will enable fashion retailers to gain a more comprehensive understanding of the strategies they should implement when integrating in-store AI technology into their operations.

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