

An Examination of Consumer Adoption of Digital-Only Fashion: A Functional Theory of Attitudes Perspective

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Keywords: Digital fashion, digital-only fashion, sustainability, Functional Theory of Attitudes

Research Rationale. Digital fashion has garnered significant attention from scholars and practitioners due to its fusion of sustainability and fashionability (Baek et al., 2022). By embracing dematerialization, digital fashion offers a sustainable alternative to traditional practices by minimizing resource-intensive processes (Colombi & D'Itria, 2023). This approach, particularly in product design and development, reduces material resource consumption, shortens time-to-market, and lowers costs and waste associated with physical sampling (Guandalini, 2022). Notably, digital-only fashion, existing solely in virtual realms, bypasses conventional production, paving the way for a promising nonphysical economy (Mogaji et al., 2023). Furthermore, digital-only fashion enables designers to unleash their creativity, resulting in visually stunning and imaginative designs (Särmäkari & Vänskä, 2021). Accordingly, digital-only fashion provides consumers with unparalleled freedom of expression, transcending constraints like material limitations, craftsmanship, size, and gender norms (Särmäkari & Vänskä, 2021). It can be used to dress avatars and realistic on-screen bodies, showcasing individuality effectively (Venturini & Columbano, 2023). Beyond aesthetics, digital-only fashion offers immersive experiences, enhancing hedonic enjoyment (Mogaji et al., 2023). However, empirical research on the consumer demand and motivations for digital-only fashion is lacking despite it could fully manifest both sustainability and fashionability.

The Functional Theory of Attitudes (FTA), widely applied in consumer studies, emphasizes that attitudes serve various functions beyond mere evaluation, including utilitarian, value-expressive, social-adjustive, and hedonic functions, to meet individuals' diverse needs, such as Katz

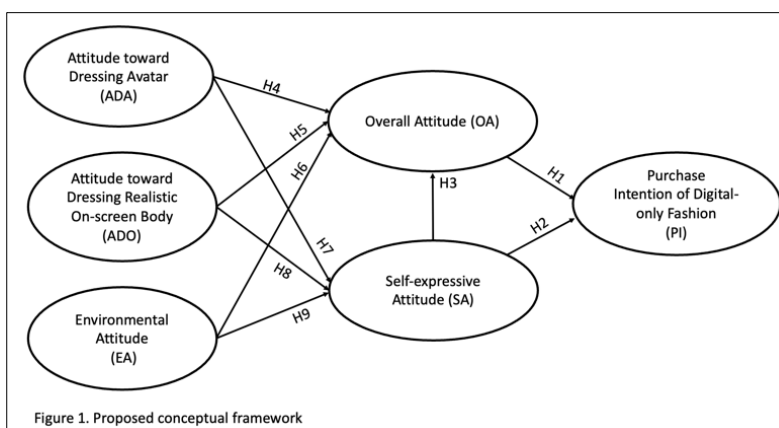


Figure 1. Proposed conceptual framework

(1960) and Quach et al. (2022). Consumers could utilize digital-only fashion for four main

purposes: enhancing avatars (Park & Kim, 2023), styling realistic on-screen bodies (Zhang et al., 2023), enabling self-expression (Venturini & Columbano, 2023), and protecting the environment by reducing physical consumption (Mogaji et al., 2023). Thus, we identified four functional attitudes toward digital-only fashion, each associated with a primary function derived from FTA. Self-expressive Attitude (SA) reflects consumers' use of digital-only fashion to convey self-images and core values, consistent with FTA's value-expressive function. Attitude toward Dressing Avatars (ADA) evaluates using digital fashion to enhance avatars distinct from users' physical appearances, allowing users to construct diverse identities and enjoy privacy and freedom, aligning with FTA's hedonic function (Venturini & Columbano, 2023). Attitude toward Dressing On-screen Body (ADO) assesses adorning realistic on-screen bodies, closely resembling physical appearances, driven primarily by social motives, corresponding to FTA's social-adjustive function (Quach et al., 2022). Environmental Attitude (EA) evaluates digital-only fashion's potential environmental benefits, in line with FTA's utilitarian function, emphasizing its dematerialized nature and environmental contributions. To fill the research gap, drawing on FTA, our study aims to examine consumers' overall evaluative attitudes and four functional attitudes toward digital-only fashion, and their subsequent purchase intentions. Based on the literature review, we developed a research model with multiple attitudes and corresponding hypotheses (see Figure 1). Previous research revealed the positive link between attitude and buying intention and the influence of self-expression on digital fashion consumption (Zhang et al., 2023). Thus, we proposed consumers' Overall Evaluative Attitude (OA, H1) and SA (H2) affect their purchase intention (PI). Based on the Functional Theory of Attitudes, we propositioned that OA is impacted by SA driven by value-expressive function (H3), ADA driven by hedonic function (H4), ADO driven by social-adjustive function (H5), and EA driven by utilitarian function (H6). Given that self-expression is the fundamental purpose of consumers in fashion consumption (Anand & Kaur, 2018), we proposed that SA is influenced by ADA (H7), ADO (H8), and EA (H9).

Research Design. An online survey was developed and administered via Qualtrics, featuring multi-item scales adapted from prior studies to gauge constructs related to PI, OA, ADA, ADO (Spears & Singh, 2004), SA (Anand & Kaur, 2018), and EA (Zaichkowsky, 1985). A U.S.-based research agency was hired to collect data, resulting in 247 completed surveys. Participants utilized seven-point semantic and Likert scales to evaluate all constructs. Data analysis, including exploratory factor analysis (EFA) and Partial Least Squares Structural Equation Modeling (PLS-SEM), was carried out using the R programming language and RStudio software. Compared to covariance-based SEM, PLS-SEM could provide enhanced predictive power without stringent assumptions of multivariate normality and well fit the small sample size (Hair Jr et al., 2021).

Results and Findings. The measurement model demonstrates satisfactory reliability and validity. The R^2 value for the ultimate endogenous variable (PI) is 0.424, indicating a moderate in-sample explanatory power (Hair Jr et al., 2021). Results showed that this structural model exhibits a medium-to-high out-of-sample predictive power as three out of four PI indicators in the PLS path model exhibited lower root-mean-square error (RMSE) values compared to the Linear Modeling (LM) model benchmark (Hair Jr et al., 2021). Results of hypotheses testing using the bootstrapping (10,000 bootstrap samples) procedure reveal eight out of nine proposed hypotheses were supported (see Table 1). Results of mediation analysis show SA robustly mediates the relationships between the other three functional attitudes (ADA, ADO, EA) and PI. Findings highlight that consumers' acceptance of digital-only fashion is influenced by both the evaluative attitude and functional attitudes. Self-expression is particularly pivotal in the digital-only fashion realm. Adorning avatars and dressing realistic on-screen bodies are distinct yet complementary aspects of digital-only fashion consumption.

Table 1. Results of hypotheses testing

	Hypotheses	Path coefficients	T-values	2.50% CI	97.50% CI	Result	
Consumers' positive environmental beliefs about digital-only fashion do not directly impact their purchasing behavior; instead, they focus on how well digital-only	H1	OA → PI	0.130	2.215*	0.017	0.247	Supported
	H2	SA → PI	0.581	10.681***	0.469	0.682	Supported
	H3	SA → OA	0.174	2.560*	0.043	0.306	Supported
	H4	ADA → OA	0.327	4.627***	0.182	0.459	Supported
	H5	ADO → OA	0.302	4.079***	0.159	0.449	Supported
	H6	EA → OA	0.021	0.387	-0.088	0.130	Not Supported
	H7	ADA → SA	0.169	2.298*	0.021	0.311	Supported
	H8	ADO → SA	0.346	4.555***	0.199	0.497	Supported
	H9	EA → SA	0.254	4.313***	0.140	0.371	Supported

Notes: CI, Confidence Interval; ***, p -value < 0.001; **, p -value < 0.01, *, p -value < 0.05

fashion allows them to express these beliefs. The research offers practical insights across the digital-only fashion value chain. In design and production, designers can partner with consumers to create highly personalized digital-only fashion items that reflect individual personalities, styles, and symbolic representations. Marketing strategies could involve leveraging influencer and user-generated content to attract like-minded consumers. Practitioners should provide a comprehensive product line including dressing both avatars and on-screen bodies, along with enhanced services during the consumption stage. Exploring the resale market of digital-only fashion could establish a pure digital circular economy. This study pioneers in applying the Functional Theory of Attitudes to the digital-only fashion domain, contributing to both attitude and fashion theories.

References:

- Anand, S., & Kaur, H. (2018). Fashion self-congruity: Scale development and validation. *Journal of Fashion Marketing & Management*, 22(2), 158-175.
- Baek, E., Haines, S., Fares, O. H., Huang, Z., Hong, Y., & Lee, S. H. M. (2022). Defining digital fashion: Reshaping the field via a systematic review. *Computers in Human Behavior*, 107407. <https://doi.org/10.1016/j.chb.2022.107407>
- Colombi, C., & D'Itria, E. (2023). Fashion digital transformation: Innovating business models toward circular economy and sustainability. *Sustainability*, 15(6), 4942.
- Guandalini, I. (2022). Sustainability through digital transformation: A systematic literature review for research guidance. *Journal of Business Research*, 148, 456-471. <https://doi.org/10.1016/j.jbusres.2022.05.003>
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer Nature. <https://doi.org/10.1007/978-3-030-80519-7>
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, 24(2), 163-204. <https://doi.org/10.1086/266945>
- Mogaji, E., Dwivedi, Y. K., & Raman, R. (2023). Fashion marketing in the metaverse. *Journal of Global Fashion Marketing*, 1-16. <https://doi.org/10.1080/20932685.2023.2249483>
- Park, J., & Kim, N. (2023). Examining self-congruence between user and avatar in purchasing behavior from the metaverse to the real world. *Journal of Global Fashion Marketing*, 1-16. <https://doi.org/10.1080/20932685.2023.2180768>
- Quach, S., Septianto, F., Thaichon, P., & Mao, W. (2022). Art infusion and functional theories of attitudes toward luxury brands: The mediating role of feelings of self-inauthenticity. *Journal of Business Research*, 150, 538-552. <https://doi.org/10.1016/j.jbusres.2022.06.046>
- Särmäkari, N., & Vänskä, A. (2021). 'Just hit a button!'—fashion 4.0 designers as cyborgs, experimenting and designing with generative algorithms. *International Journal of Fashion Design, Technology and Education*, 1-10. <https://doi.org/10.1080/17543266.2021.1991005>
- Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. *Journal of Current Issues & Research in Advertising*, 26(2), 53-66. <https://doi.org/10.1080/10641734.2004.10505164>
- Venturini, A., & Columbano, M. (2023). 'Fashioning' the metaverse: A qualitative study on consumers' value and perceptions of digital fashion in virtual worlds. *Journal of Global Fashion Marketing*, 1-17. <https://doi.org/10.1080/20932685.2023.2234918>
- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of Consumer Research*, 12(3), 341-352. <https://doi.org/10.1086/208520>
- Zhang, Y., Liu, C., & Lyu, Y. (2023). Examining consumers' perceptions of and attitudes toward digital fashion in general and purchase intention of luxury brands' digital fashion specifically. *Journal of Theoretical and Applied Electronic Commerce Research*, 18(4), 1971-1989. <https://doi.org/10.3390/jtaer18040099>