Promoting Sustainable Consumption: The Roles of Consumers' Domain-specific Environmental Knowledge and Personality Traits

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Introduction and Literature Review. The textile and apparel (T&A) industry faces various environmental challenges such as water scarcity, carbon footprint emissions, waste management, and microplastic pollution (Li and Leonas, 2022). These adverse environmental outcomes underscore the urgent need for the T&A industry to seek a path toward environmentally sustainable development. However, the shift towards sustainability leads to significant changes in consumers' lifestyles and cultural practices (Capgemini, 2023). Consumer behaviors in the pro-environmental context have become increasingly uncertain (Soyer and Dittrich, 2021). In past studies of consumer environmental behaviors, the predictive power of environmental knowledge, particularly domain-specific environmental knowledge, is often underestimated or ignored (Geiger et al., 2019). Furthermore, the roles of general environmental beliefs (Corral-Verdugo et al., 2003), personal environmental responsibility (PER) (Patwary et al., 2021), and environmental locus of control (Pratiwi and Pratomo, 2018) have been identified as influential factors in fostering pro-environmental intentions. Therefore, this study, within the T&A context, aims to investigate the impact of consumers' subjective and objective domain-specific environmental knowledge (SUEK and OBEK) and personality traits - including PER, eco-centric and anthropocentric environmental beliefs (EEB and AEB), as well as internal and external environmental locus of control (IN-ELOC and EX-ELOC) - on their sustainable consumption intention (SCI) of T&A products. Figure 1 depicts the developed research framework with the proposed hypotheses.
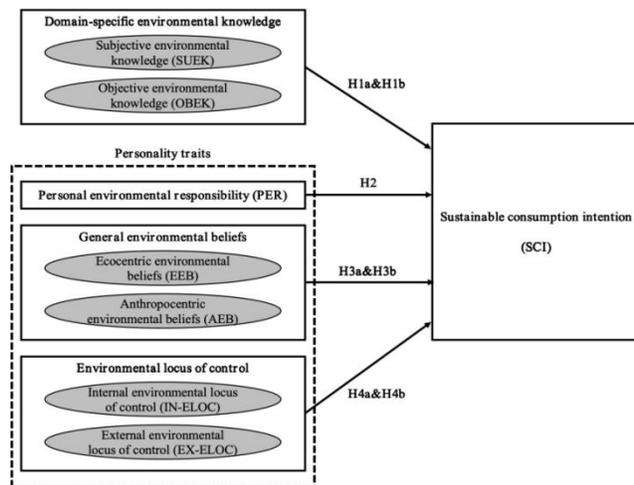

Figure 1. Theoretical Framework with Proposed Hypotheses

Methodology. This research employed the Environmentally Responsible Behavior (ERB) model, a widely utilized framework for predicting individual ERB, particularly in domains such as tourism and education (e.g., Cheng and Wu, 2015; Gao *et al*., 2021; Mobley *et al*., 2010). Data for this study were collected through an online survey tool. College students aged 18 years or older from a large southeastern university were recruited as a convenience sample to participate in the survey. This sampling frame represents the future-dominant buying behavior segment, likely exposed to university sustainability

initiatives, and more homogeneous than non-students in terms of lifestyles and life stages. Existing scales were either adopted or modified to measure the following variables: SUEK, OBEK, PER, EEB, AEB, IN-ELOC, EX-ELOC, and SCI. Each construct was assessed using a 7-point Likert scale. A two-stage partial least squares structural equation modeling (PLS-SEM) approach was used to analyze the measurement model and the structural relationships among constructs (Anderson and Gerbing, 1988).

Results. A total 212 completed questionnaires were retained for data analysis. A final model (H3b: AEB->SCI was removed) with good reliability and validity was generated based on the results of reliability and validity analyses in PLS-SEM modeling approach. Evaluations of overall predictive power and relevance support reasonable model structure (R^2 = .324, Q^2 = .245). The results of hypothesis test (see Table I) revealed that SUEK (β = .215; t = 3.609; p = .000 < .001), PER (β = .224; t = 3.282; p = .001 < .01), and EEB (β = .229; t = 2.482; p = .013 < .05) had a significant positive influence on consumers' sustainable consumption intention for T&A products (H1a, H2, H3a were supported respectively). While OBEK, IN-ELOC, and EX-ELOC had a non-significant influence on consumers' sustainable consumption intention for T&A products (H1b, H4a, H4b were rejected respectively).

Table I. PLS-SEM Results of Final Structural Model

Path	Standardized Estimate (β)	T Statistic	P Value	Decision
SUEK->SCI (H1a)	.215***	3.609	.000	Supported
OBEK->SCI (H1b)	-.033	.463	.644	Not Supported
PER->SCI (H2)	.224**	3.282	.001	Supported
EEB->SCI (H3a)	.229*	2.482	.013	Supported
IN-ELOC->SCI (H4a)	.068	0.885	.376	Not Supported
EX-ELOC->SCI (H4b)	.103	1.263	.207	Not Supported

Note: *P < .05,**P < .01,***P < .001

Conclusion. In summary, individuals with a higher level of confidence in their knowledge of environmental aspects in the T&A industry show a greater inclination towards engaging in sustainable consumption within the T&A context. Additionally, those who hold a profound sense of personal responsibility toward environmental protection demonstrate a stronger intention to embrace sustainable consumption of T&A products. Furthermore, consumers with eco-centric values or beliefs tend to exhibit a heightened inclination towards sustainable consumption of T&A products. This study enhances the understanding of consumers' SCI in the T&A industry and addresses a gap in the literature. It adds value to the existing Environmentally Responsible Behavior (ERB) model by extending it into the T&A industry context. Additionally, this study provides implications for T&A brands and retailers, educators, policy makers, and additional stakeholders in pursuit of a more sustainable T&A industry.

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