

U.S. Millennial Consumers and Their Purchase Intention of Sustainable Apparel: The Mediating Role of Consumer Concern

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Background, Purpose, and Theoretical Framework

The apparel industry is facing increasing ethical and environmental issues and apparel firms are often accused by consumers of unsustainable practices in the apparel manufacturing and retailing processes (Jia et al., 2020). The apparel industry has initiated a series of strategies to promote environmentally and ethically friendly consumption (Yang et al., 2017). As the millennial generation in the U.S. has been growing up in the pro-sustainability culture such as Earth Day or recycling, apparel companies that follow sustainable practices have a huge potential for success in this market. The population of millennials, who were born between 1980 to 2000, is over 90 million in the U.S. (Su et al., 2019; U.S. Census Bureau, 2021). Eastman et al. (2014) reported that millennials who live in the U.S. spend approximately \$600 billion in purchasing products and services each year. Pastore (2020, January 6) stated that millennials now represent the largest percentage of the workforce in the U.S., and their consumption power was expected to grow up to \$1.4 trillion in 2020. Thus, this specific consumer group warrants special attention in sustainable apparel consumer research.

Brach et al. (2018) explained that companies could increase sustainable consumption by providing sustainable knowledge to consumers through the use of environmental and social labels. Sustainability knowledge can be referred to attitudes and behavioral patterns that reflect social and environmental concerns (Kang et al., 2013). Previous literature demonstrated the role of apparel sustainability knowledge in affecting consumer attitude and behavior toward sustainable apparel (Kang et al., 2013; Su et al., 2019); however, it is not clear how consumer's sustainability knowledge impacts their concern about apparel production and whether their concern serves as a mediator in the relationships between sustainability knowledge and attitude and purchase intention toward sustainable apparel. Thus, this study aims to fill these gaps. Fishbein's attitude theory (Fishbein & Ajzen, 1975) provided the theoretical foundation for this study. The basic theoretical proposition of Fishbein's attitude theory proposes a causal flow among three cognitive variables: beliefs, evaluations or attitudes, and intentions. Knowledge shapes an individual's beliefs, and attitude is derived from a group of beliefs that one holds about the object of the behavior. An individual's attitudes turn into a function of intention toward performing the behavior (Fishbein & Ajzen, 1975). Based on the attitude theory, this study investigates the relationships between sustainability knowledge, concern, attitude and purchase intention in the context of sustainable apparel; specifically, it focuses on the mediating role of consumer's concern about apparel production in the relationships between apparel sustainability knowledge and attitude and purchase intention towards sustainable apparel. Figure 1 illustrates the research model and the six hypotheses.

Research Design and Method

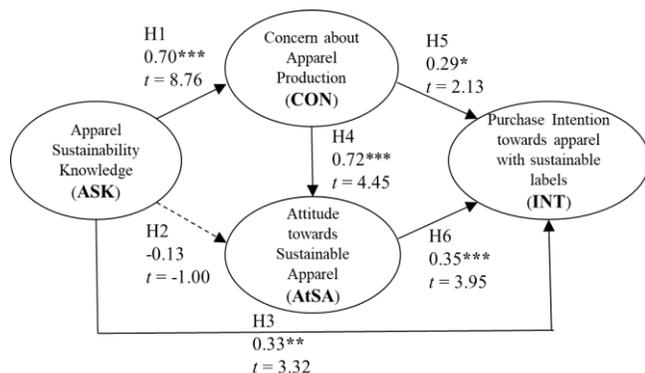
A national consumer survey was conducted in the U.S. to collect quantitative data from a random sample of U.S. millennial consumers. The survey created by Qualtrics consisted of a series of questions aiming to understand consumer apparel sustainability knowledge, their concern about apparel production,

and their attitude and intention towards apparel with environmental and ethical labels. Questions used for this survey were adapted from the previous research (Dickson, 2001; Hustvedt & Bernard, 2010; Hwang et al., 2015; Ma and Lee, 2012; Park and Kim, 2016) on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The questionnaire was distributed through MTurk. A total of 259 useable responses were collected from U.S. millennials aged 18 – 24 (21%) and 25 – 34 (79%). 58% of the respondents were male. Educational levels varied among the respondents, with 40% having a 4-year degree, 19% having a graduate degree, 15% having professional degree, and 19% having some college education.

Results and Discussion

Data were analyzed using a two-step approach of structural equation modeling. Firstly, evaluation of the measurement model was conducted using confirmatory factor analysis. Multiple fit indexes were used to examine the model fit. A satisfactory fit and an acceptable level of measurement reliability and validity were achieved for the measurement model (see Table 1). Secondly, the model's structural relationships were examined by structural equation modeling. The analysis of the structural equation model (see Figure 1, which includes the standardized parameter estimates and the *t*-values) shows that five out of six hypotheses are supported.

The SEM results revealed that apparel sustainability knowledge positively impacts concern about apparel production (H1), which impacts attitude toward sustainable apparel (H4) and purchase intention toward clothing with sustainable labels (H5). Furthermore, consumers' attitude toward sustainable apparel impacts purchase intention toward clothing with sustainable labels (H6). In addition, sustainability knowledge directly impacts consumer purchase intention (H3). However, the data did not support the direct link between apparel sustainability knowledge and attitude toward sustainable apparel (H2). Further analysis of direct and indirect effects indicates that concern about apparel production fully mediates the effect of sustainability knowledge on attitude toward sustainable apparel, and it partially mediates the effect of sustainability knowledge on purchase intention. This study provides new insights into the mechanism of how millennial consumer's apparel sustainability knowledge impacts their attitude and intention toward sustainable apparel. Besides the strong direct impact of apparel sustainability knowledge on purchase intention toward sustainable apparel, the study indicates that concern about apparel production is the key to transferring sustainability knowledge to a favorable attitude toward sustainable apparel. Marketers for sustainable apparel should recognize the importance of consumer's concern when they design and develop their marketing communications.



Note: 1) The path coefficients in the figure are standardized parameter estimates. 2) The dotted line represents the non-significant path. 3) **p*<0.05. ***p*<0.01. ****p*<0.001.

Figure 1. Conceptual Model

Fit Indices	Value
Chi-square / degrees of freedom (1.96
Root Mean Squared Error of Approximation	0.061
Normed Fit Index	0.92
Goodness of Fit Index	0.93
Comparative Fit Index	0.96

	CR	ASK	CON	AtSA	INT
ASK	0.87	0.53	0.80	0.50	0.77
CON	0.69	0.49	0.53	0.75	0.85
AtSA	0.80	0.14	0.40	0.68	0.76
INT	0.81	0.45	0.56	0.44	0.52

Note: 1) CR=composite reliability. 2) The elements on the diagonal (bold) are the average variance extracted (AVE). 3) The elements below the diagonal are squared inter-factor correlation estimates. 4) The elements above the diagonal are the upper bounds of the 95% confidence interval for the inter-factor correlations.

Table 1. Measurement Model Results

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