Role of Consumer Traits on Intention to Use Virtual Wardrobe

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Introduction

Over-consumption by consumers is a significant challenge to sustainability. Consumers, already overwhelmed by overflowing wardrobes, are encouraged to purchase new clothing without considering what they have, what they wear, and what they need. Technology, such as virtual wardrobes, can suggest options and may reduce consumption. A virtual wardrobe is a web-based service that allows users to register and create wardrobes by searching, organizing, and adding clothing from a digitized personal collection of clothing that are available from their actual physical closets (Al-Omar et al., 2013). It recommends outfits based on factors such as the weather, season, colors, styles, events, and user emotions. Moreover, it recommends purchases that suit users' wardrobes and personal styles (Perry, 2016). By gaining insight into their wardrobe, consumers can be more strategic about clothing consumption, use, and disposal (Shaw & Duffy, 2019). This research investigates what motivates consumers to use virtual wardrobes and proposes marketing strategies to address these behaviors.

Literature Review

This research focuses on the following fashion-related consumer traits: Shopping Value is critical to understanding consumer behavior. It is perceived emotional and psychological value acquired from engaging in a purchasing experience and has two aspects – hedonic and utilitarian (Babin, Darden, & Griffin, 1994). Batra and Ahtola (1991) argued that "consumers purchase goods and services and perform consumption behaviours for two basic reasons: (1) consummatory affective (hedonic) gratification (from sensory attributes), and (2) instrumental, utilitarian reasons concerned with expectations of consequences" (p. 159). Fashion Involvement refers to the extent to which consumers consider fashion consumption to be central to their lives and a meaningful, engaging activity (O'Cass, 2004; Ogle et al., 2014). Socially Responsible Consumer Behavior was defined by Mohr et al. (2001) as "a person basing his or her acquisition, usage, and disposition of products on a desire to minimize or eliminate any harmful effects and maximize the long-run beneficial impact on society" (p. 47). Ha-Brookshire and Hodges (2009) argued that the whole consumption process, from pre-purchase to post-disposal, should be included and evaluated. Agarwal & Prasad (1998) defined Personal Innovativeness in Information Technology (PIIT) as the willingness of an individual to try new information technology. They hypothesized that individuals with high levels of PIIT have positive perceptions of innovation in terms of advantage, ease of use, compatibility, etc., and tend to have positive intentions toward use of new information technology (Lu et al., 2005).

This research utilizes the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975) as a theoretical framework. This theory indicates a causal flow among three cognitive variables: beliefs, evaluations or attitudes, and intentions; attitude is a function of a person's salient beliefs at a given time. This research proposes that consumers' shopping values, fashion involvement, socially responsible consumer behavior, and personal innovativeness in information technology impact their attitudes toward virtual wardrobes and their intentions to use them. Figure 1 illustrates the research framework and its five hypotheses.

Research Method
This research utilized a structured questionnaire to collect data from college students in the United States. It was designed based on a review of pertinent literature and created using Qualtrics. A snowball sampling method was used to recruit participants. After Internal Review Board (IRB) approval, an invitation was sent to professors at three different universities in the U.S., and the survey was distributed to their students. Items were measured using a seven-point Likert-type scale (1 = "strongly disagree" to 7 = "strongly agree"). The items for Shopping Value (SV), Fashion Involvement (FI), Socially Responsible Consumer Behavior (SRCB), and Personal Innovativeness in Information Technology (PIIT) were adopted from Babin et al. (1994), O'Cass (2000), Stephens (1985), and Lu et al. (2005) respectively.
    The study collected 265 valid responses. Most participants (85%) were between 18 and 25 years old, 14% were between 26 and 37 years old; 91% were female. The respondents were 48% Caucasian, 27 % African American, and 17% Asian. Most were single (92%) and the average monthly spending on clothing and accessories, in 2020, was between $100 and $200 for 31% of respondents; 49% spent less than $100 per month.

Results and Discussion
Data was analyzed using structural equation modeling. Evaluation of the measurement model was conducted using confirmatory factor analysis. Multiple fit indexes were used to examine the model fit. A satisfactory fit is achieved for the measurement model (see Table 1). Analysis of the structural equation model (Figure 1) shows that Socially Responsible Consumer Behavior and Personal Innovativeness in Information Technology positively affect Attitude toward Virtual Wardrobe, which in turn increases Intention to Use Virtual Wardrobe. However, Shopping Value and Fashion Involvement do not impact consumer attitudes toward virtual wardrobes. This study provides evidence that personal innovativeness in information technology and socially responsible consumer behavior are the main drivers of positive attitudes toward virtual wardrobes. Marketers of virtual wardrobes should highlight social responsibility and technological innovation in product and service promotions. Also, they should target young consumers, like millennials and Generation Z, who are interested in new technologies and sustainable lifestyles.

Figure 1 *Research Model & Hypothesis Testing Results*
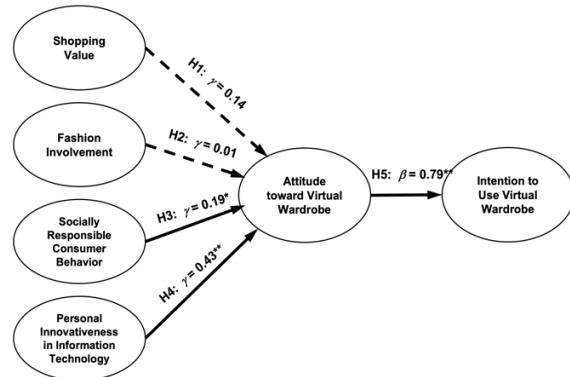
Notes. The path coefficients in the figure are standardized parameter estimates. * *p* < 0.05; ** *p* < 0.01. The dashed lines represent non-significant paths.

Table 1 *Measurement Model*

Fit Indices	Value
Chi-square / degrees of freedom	1.82
Root Mean Squared Error of Approximation	0.056
Normed Fit Index	0.93
Nonnormed Fit Index	0.96
Goodness of Fit Index	0.92
Comparative Fit Index	0.96

	CR	AVE	SV	FI	SRCB	PIIT	ATT	INT
SV	0.81	0.59	**0.77**					
FI	0.80	0.57	0.68	**0.75**				
SRCB	0.80	0.58	0.49	0.55	**0.76**			
PIIT	0.83	0.63	0.14	0.18	0.08	**0.79**		
ATT	0.89	0.73	0.31	0.29	0.32	0.44	**0.85**	
INT	0.93	0.82	0.21	0.24	0.17	0.49	0.78	**0.91**

Notes: 1) CR=composite reliability; AVE= average variance extracted. 2) SV=Shopping Values; FI=Fashion Involvement; SRCB=Socially Responsible Consumer Behavior; PIIT=Personal Innovativeness in Information Technology; ATT=Attitude toward Virtual Wardrobe; and INT=Intention to Use Virtual Wardrobe.
3) The square roots of the AVEs are reported on the diagonal in bold, and the values below the diagonal correspond to the factor correlations.

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