

## U.S. Millennials' Intention to Donate Used Clothing: A Study of the Determinants

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Keywords: Determinants, millennials, used clothing donation

*Introduction and literature review.* Today, Americans buy five times as much apparel as they did in the 1980s (Cline, 2014). As the need for the newest fashion trends heightens, consumers create more closet space by throwing away out-of-style apparel. Every year approximately 31 billion pounds of apparel ended up in landfills or incineration in the U.S. (Liu et al., 2019). If the used apparel was donated, rather than disposed of, 45 percent could be worn as second-hand clothing, 30 percent could be used as industrial rags, 20 percent could be reprocessed into insulation or carpeting, and only 5 percent would contribute to potential waste (Cline, 2014). To achieve the goal of waste reduction, consumers need to get on board with recycling old apparel. The cohort that dominates the apparel consumption in the U.S. are millennials (born 1981-1996) who account for 30 percent of apparel retail sales (Miller et al., 2017). Based on a recent survey of consumers of multiple age groups, Montgomery and Mitchell (2014) indicated that millennials could potentially generate the greatest amount of commerce in used clothing donation and thrift buying. While there is vast information on the spending power of millennials and potential for them to contribute to sustainable apparel movement, there is a lack of knowledge on the factors that motivate millennials to donate their used clothing. In order to address the gap in the literature, this study aimed to identify the key factors influencing the U.S. millennials' intention towards used clothing donation. In specific, the objectives of this research are fourfold. First, building on the Theory of Planned Behavior (TPB), a research model for understanding used clothing donation intention is proposed. Second, the psychometric properties of the proposed model are tested using the primary online survey data. Third, the effects of significant factors on U.S. millennials' intention to donate used clothing are determined. Finally, some marketing strategies are proposed for industrial practitioners. The figure 1 illustrates the developed model with the proposed hypotheses.

*Methodology.* The measures and scales for attitude, descriptive norms, injunctive norms, moral norms, perceived hedonic value, perceived utilitarian value, PBC, PCE, past environmentally friendly behavior, environmental knowledge, and donation intention were adapted from prior relevant studies (Babin et al., 1994; Barbarossa & Pelsmacker, 2014; Park & Smith, 2007; Rhodes et al., 2015; Zheng & Chi, 2015; Zsóka et al., 2013). The demographic variables including gender, age, ethnicity, and education were included as control factors. The survey instrument was pre-tested with 10 U.S. consumers regarding arrangement, wording accuracy and relevance and then finalized for main data collection in the U.S. via Amazon Mechanical Turk. 302 eligible responses were gathered for data analysis and hypothesis testing. Unidimensionality, reliability, and validity of the investigated constructs were first tested for proving model adequacy. The statistical assumptions including multivariate normality,

multicollinearity, and correlations were examined. Multiple regression method was applied for determining the proposed statistical relationships (hypotheses) using SPSS 24.

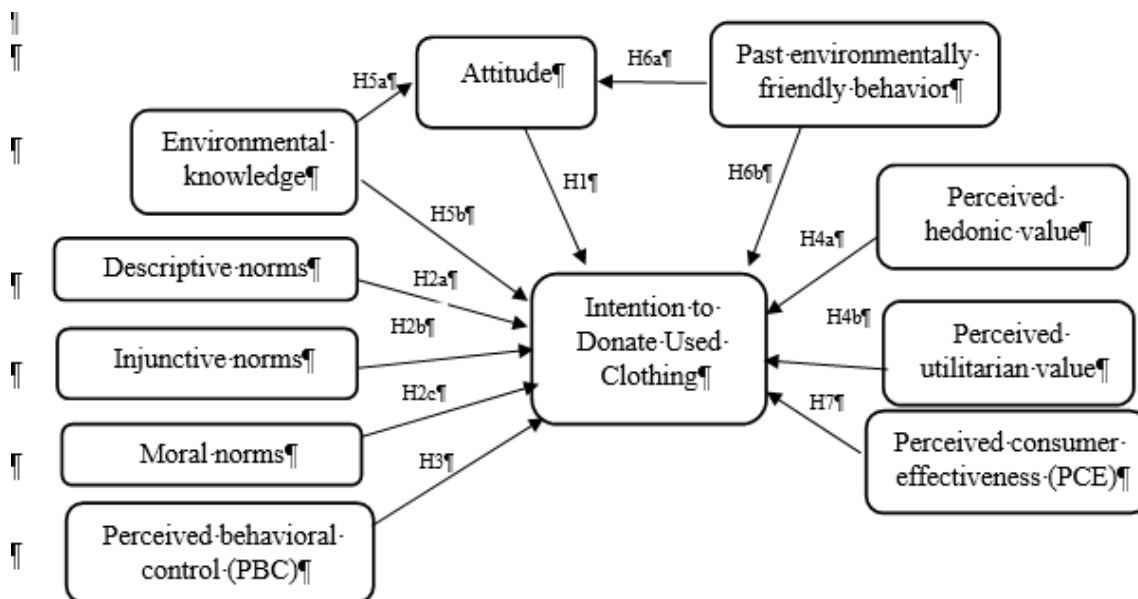


Figure 1. Proposed Research Model for Consumer Intention to Donate Used Clothing

*Findings and Discussion.* Table 1 presents the testing results of all the hypotheses. The U.S. millennials' intention to donate used clothing are significantly affected by consumers' attitude towards used clothing donation, injunctive norms, moral norms, perceived behavioral control, perceived hedonic value, perceived utilitarian value, perceived consumer effectiveness, and none of demographic variables impose directly significant impact on millennials' intention to donate used clothing. Therefore, H1, H2b, H2c, H3, H4a, H4b, and H7 are supported while H2a, H5b and H6b are rejected. The proposed model shows a good explanatory power, accounting for 58% of the variance of U.S. millennials' intention to donate used clothing. Past environmentally friendly behavior and environmental knowledge do not directly affect U.S. millennials' intention to donate used clothing but their attitude towards used clothing donation. Millennials with higher education level show more positive attitude towards used clothing donation. Clear messages must be sent to millennials that it is possible to alleviate the environmental deteriorations through individual's sustainable consumption behavior. Developing strategies around the identified determinants can more effectively engage millennials in participating in used clothing donation.

Table 1. Results of Hypothesis Testing

Hyp.	DV	IDV	Std. Coef. ( $\beta$ )	<i>t</i> -value	Sig. at $p < .05$	Total $R^2$	Sig. at $p < .05$
	DI	Constant	-	1.294	.197	.580	<.000
H1	Y	AT	.082	2.031	.008		$F = 32.764$
H2a	N	DN	-.091	-1.521	.129		(13/286)
H2b	Y	IN	-.156	-3.446	.001		
H2c	Y	MN	.247	4.740	.000		
H3	Y	PBC	.213	4.034	.000		
H4a	Y	HV	.161	3.052	.002		
H4b	Y	UV	.214	3.429	.001		
H5b	N	EK	.096	0.823	.411		
H6b	N	PB	.085	1.653	.099		
H7	Y	PCE	.235	4.578	.000		
	AT	Constant		4.027	.000	.283	<.000
H5a	Y	EK	.261	4.227	.000		$F = 23.208$
H6a	Y	PB	.280	4.537	.000		(5/294)

Note: Note: Y- Hypothesis supported; N- Hypothesis not supported; Std. Coef.=Standardized Coefficients, DV: Dependent variable. IDV: Independent variable; DI=Donation intention, AT=Attitude, DN= Descriptive norms, ID= Injunctive norms; MD= Moral norms; PBC=Perceived behavioral control; HV= Perceived hedonic value; PCE=Perceived consumer effectiveness, PB= Past environmentally friendly behavior; EK=Environmental knowledge.

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