

The Influence of LOHAS Consumption Tendency and Perceived Consumer Effectiveness on Trust and Purchase Intention Regarding Upcycling Fashion Goods

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Abstract

The purpose of this study is to examine the effects of LOHAS consumption tendency and of the perceived consumer effectiveness of young consumers on trust and purchase intentions regarding upcycling fashion goods. Data were collected from a questionnaire survey of 201 university students living in Daegu City, South Korea. The data were analyzed to investigate a structural model and test the research hypotheses, using the AMOS 20.0 statistical package. The results can be summarized as follows. First, LOHAS consumption tendency had a positive impact on trust in upcycling fashion goods. Second, LOHAS consumption tendency did not impact purchase intention with regard to upcycling fashion goods. Third, perceived consumer effectiveness had a positive effect on trust in upcycling fashion goods. Fourth, perceived consumer effectiveness had a positive impact on purchase intention with regard to upcycling fashion goods. Fifth, trust had a positive influence on purchase intention regarding upcycling fashion goods. The results of this study provide guidance for marketers and retailers who are interested in upcycling fashion goods.

Keywords

Upcycling fashion, LOHAS consumption tendency, Perceived consumer effectiveness, Trust, Purchase intention

Introduction

Today, more textiles and apparel are produced around the world than can be used. Many of the large clothing chains produce as many as a half a billion garments a year (Son & Yoon, 2014). What happens to these clothes after they have fulfilled their “useful” lives? According to the Environmental Protection Agency, roughly 14.3 million tons of textiles were sent to landfills in 2012, making up roughly 5.7% of the total municipal solid waste generated in USA (3p contributor, 2014).

If unwanted fashion items are not thrown away as trash, they are donated to thrift shops. Although this seems like a good step toward avoiding an increase in landfill, its effects are not as beneficial as people think, because only about 20-30% of donated clothing is actually resold. In addition, a rapid increase in the volume of secondhand clothing over the past 15 years has driven down its value. This means that charity stores are now filled with cheap fashion apparel and junky basics, instead of vintage gems (3p contributor, 2014).

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In the face of these increased concerns about unwanted fashion item disposal, upcycling has become a growing trend, and is one of the most sustainable approaches that people can take with regard to fashion goods. Upcycling is the process of converting waste materials or useless products into new materials or products that are of better quality or have more environmental value (Wikipedia, 2015). As upcycling makes use of already existing pieces, it typically utilizes few resources in the process of creation and actually keeps “unwanted” items out of the waste stream.

Although many previous studies of upcycling fashion have been carried out, they have thus far focused on identifying design characteristics (Kim, 2012; Kwan, 2012; Yim, 2014) and performing case studies of business models (Ha & Lee, 2013; Kim, 2014). There has been little research into the psychological factors influencing trust or purchase intentions in the upcycling of fashion goods.

This study considered the LOHAS consumption tendency and perceived consumer effectiveness (hereafter PCE) as social psychological variables impacting on trust and purchase intention of upcycling fashion goods. The consumers who had high LOHAS consumption tendency have shown greater attention to the health and environmental sustainability (Ray & Anderson, 2001; Pesek *et al.*, 2006). Thus, the consumers who have high LOHAS consumption tendency will show higher trust and purchase intention for upcycling fashion goods based on sustainability. Also, previous studies have showed that PCE positively affected the interest of environment (Allen, 1982; Ellen *et al.*, 1991; Kinnear *et al.*, 1974; Sparks & Shepherd, 1992). In this context, PCE will be a significant variable influencing on trust and purchase intention of upcycling fashion goods reflecting the interest of environment. In addition, upcycling fashion goods have innovative features that differentiate general fashion goods and they are in the early stage of diffusion. Thus, when a consumer purchase upcycling fashion goods, the perceived risk will be great. Therefore, trust of them will be an important role in the formation of purchase intention.

Products produced with a view to preserving the environment should be targeted at young consumers, to maximize the benefits of sustainable product consumption, as these individuals are still developing beliefs and attitudes that can last for life (Vermeir & Verbeke, 2008). Young consumers can express these beliefs and

attitudes through their product choices on a daily basis. For these reasons, this study has investigated the influence of psychological variables such as LOHAS consumption tendency and PCE on trust and purchase intentions with regard to upcycling fashion goods. The results of this study will provide helpful information for marketers and managers of upcycling fashion companies and retailers.

Literature Review and Hypothesis Development

Defining Upcycling Fashion and Market Conditions

Upcycling is a means of recycling textile waste, such as fabric swatches, production off-cuts, and end-of-roll leftovers, to create products of higher quality. It can be contrasted with “recycling” or “down-cycling,” in which textiles are refashioned into products of diminished quality (Dean, 2012).

Upcycling prevents the addition of new products to a world that is already overwhelmed with material things. It also reuses materials that may otherwise have ended up in landfill, and does so in creative and innovative ways. It allows for the production of original and often unique items from what many consider to be waste. It is also a way for companies and designers to be more efficient with leftover materials such as upholstery scraps or vintage textiles, and to give new life to worn-out jeans and tattered T-shirts (3p contributor, 2014).

According to a report by the International Institute for Trade of Korea International Trade Association, the current size of the Korean upcycling market is not yet significant. The upcycling market worldwide is worth 150 million dollars, while the domestic upcycling market is worth 2.5 million dollars. The market is gradually expanding, since consumer interest and demand for upcycling products is increasing. However, the upcycling market in Korea is still in its initial stages, and is not easily expanding. The report found that the unstable provision of reusable waste for upcycling and shortage of professionals who can run such businesses are reasons why it is difficult to expand the market. In addition, the report states that low awareness of upcycling and the low accessibility for consumers, resulting from the lack of offline stores, play negative roles in expanding the market. Unlike

in the case of recycling, it is difficult to gain optimal support, because there is no legal or institutional foundation for upcycling. Thus, it is suggested that materials be secured through a building material collection system, that publicity be increased to improve awareness, and that offline distribution channels be expanded to industrialize the upcycling sector. Moreover, the legal system must be improved to enable upcycling-specific policy support, for example by overhauling upcycling-related laws and regulations and developing a certification system for upcycling products (KITA.org, 2014).

LOHAS Consumption Tendency

LOHAS is an acronym for lifestyles of health and sustainability (Ray & Anderson, 2001). LOHAS consumers are defined as those who value holistic health, the environment, conservation, global social justice, personal growth, and sustainable living (Pesek *et al.*, 2006). LOHAS consumers set trends that later become important cultural shifts. Big businesses have taken notice. For example, companies like Coca-Cola, Office Depot, Starbucks, and GM are racing to go “green” and to set up new corporate social responsibility (CSR) departments. LOHAS organizations are considered to be bridge builders, as they set the stage and create forums for information sharing and exchange about LOHAS. Information about LOHAS is gaining traction and attention from large international organizations. LOHAS consumers first become aware of products such as green dry cleaning, organic foods, and alternative health therapies, and then try the products, adopt them into their lifestyles, become loyal customers, and influence their families and friends. They lead the way in fields such as sustainable economics, personal development, ecological lifestyles, healthy lifestyles, and alternative health care (Howard, 2007).

LOHAS consumers are significantly affected by their concern for the health of their families and the sustainability of the planet (Bilharz & Schmitt, 2011; Chou *et al.*, 2012; Rogers, 2005). Joo *et al.* (2008) have found that LOHAS consumers’ emphasis on health and the environment has affected LOHAS-oriented behavior in the context of hotel restaurants. Kwon *et al.* (2007) confirm the influence of LOHAS on consumers’ propensity for healthy dining in restaurants, as well as on green indices (Kwon & Song, 2006). Kong *et al.* (2014) identified the causal relationships

among the perceived value of LOHAS by the consumers, who have experience of LOHAS consumption, trust, satisfaction, and repurchase intention. The dimension of perceived environmental friendliness and perceived health positively affected to trust and satisfaction. Consumers’ trust and satisfaction for LOHAS products had positive impacts on repurchase intention. And consumers’ trust was positively associated with consumers’ satisfaction for LOHAS products (Kong *et al.*, 2014). Im (201) also showed that the LOHAS consumption tendency had a moderated role partially in the relationship of satisfaction and repurchase intention of environment-friendly agricultural products.

As shown in previous studies, LOHAS consumers’ consumption behaviors are mainly demonstrated in health-related areas. Thus, this study has paid attention to the relationship of LOHAS consumption tendency with trust and purchase intention in the context of upcycling fashion.

H1: LOHAS consumption tendency is positively associated with trust in upcycling fashion goods.

H2: LOHAS consumption tendency is positively associated with purchase intentions regarding upcycling fashion goods.

Perceived Consumer Effectiveness

Environmental concern does not always result in a desired behavior, such as environmentally sustainable product purchases (Vermeir & Verbeke, 2008). According to a study by Butler and Francis (1997), consumers believe that the environment should be considered when buying fashion goods, but do not consider this in actual purchasing situations. The discrepancy between concern for the environment and buying behavior has been shown in many studies of environmentally and socially responsible consumers, both within the context of textile and apparel consumption and within other product categories (Butler & Francis, 1997; Domina & Koch, 1998; Kim & Damhorst, 1998; Kim & Rha, 2014; Ritch & Schröder, 2012; Roberts, 1996; Vermeir & Verbeke, 2006, 2008).

In a study aiming to fill the gap between environmental concern and environmentally sustainable behavior, Roberts (1996) found that PCE is one of the most crucial factors in explaining environmentally conscious consumer behavior. Furthermore, many scholars have shown that PCE influences consumers’ intentions to

engage in sustainable consumption (Ellen *et al.*, 1991; Kang *et al.*, 2013).

PCE represents the extent to believe that the person's behavior can give effects or differences in problem solving (Ellen *et al.*, 1991). That is, PCE is a measure of subjects' judgment of the ability of individual consumers to affect environmental resource problems (Roberts, 1996). The more consumers feel that they can do about reducing pollution, the more they consider the social impact of their purchases (Roberts, 1996). A high level of PCE motivates consumers to reveal their positive attitudes towards sustainable products through actual consumption behaviors (Vermeir & Verbeke, 2008). PCE captures stable beliefs about the effectiveness of consumer choices in general. Influencing this variable can therefore lead to behavioral changes across different domains.

In fact, PCE has been found to directly affect environmentally and socially sustainable consumption (Kim & Choi, 2005; Vermeir & Verbeke, 2008; Webb *et al.*, 2008). Vermeir and Verbeke (2008) have found that PCE is positively associated with consumers' willingness to purchase organic food. Kim and Choi (2005) have determined that PCE directly affects energy-saving and recycling behaviors. In a study by Webb *et al.* (2008), PCE was also found to be a significant variable related to socially responsible behavior.

On the other hand, Teisl *et al.* (2008) verified the influence of belief in others and PCE as a psychological characteristic which could influence the level of the individual to think about the environment information was important. That is, as consumers perceived their PCE higher, and as consumers believed that others behaved more eco-friendly than themselves, they accepted product environment information of the product was more important. Also, Moon and Lee (2012) suggested that the consumers with high PCE purchased green products easily when their trust toward green products was high. Based on past research, this study hypothesizes that there is a relationship between PCE and trust and purchase intention with regard to upcycling fashion goods.

H3: PCE is positively associated with trust in upcycling fashion goods.

H4: PCE is positively associated with purchase intentions regarding upcycling fashion goods.

Trust and Purchase Intention

Consumer trust has been shown to have a powerful influence on marketplace attitudes and behaviors, with a long tradition of scholarly work demonstrating that persuasion depends on trust (Boush *et al.* 1993; Hovland & Janis 1959; McGuire, 1968). When consumers do not trust the content of marketing claims, they are much less likely to purchase a product or adopt a favorable attitude toward it (Kangun *et al.*, 1991).

Chaudhuri and Holbrook (2001) report that brand trust and brand affect are significant drivers of purchase and attitudinal loyalty. Trust has also been found to have a positive effect on purchase intention with regard to smart clothing (Kim & Stoel, 2004; Noh *et al.*, 2011). Gefen and Straub (2004) show that the trust significantly affects consumers' decision making. Harris and Goode (2010) also insist that consumer purchase intention is influenced by their trust. Lee and Overby (2004)'s study show that trust is the basic factor influencing consumers' purchase behavior. In particular, recent studies have showed that building trust was the first thing to induce consumers' purchase intention in case of eco-friendly and/or well-being product. Chen (2010)'s study related to green product consumption identifies that trust had positive impact on the purchase behavior. Chen and Chang (2012) verify that perceived value and trust for green product strengthen the purchase intention of green product. When risk factors are large and uncertainties exist in a business relationship, trust is an important basis for determining purchase (Han & Sung, 2007). In this context, this study assumes that when consumers purchase innovative products such as upcycling fashion goods, trust will reduce cognitive risk and enhance purchase intention of upcycling fashion goods. Based on previous research, this study posits the following hypotheses:

H5: Trust is positively associated with purchase intentions regarding upcycling fashion goods.

Method

Sample and Data Collection

Participants were recruited from large universities in South Korea. Pencil-and-paper surveys were administered. After

incomplete responses were removed, a total of 201 effective survey responses were analyzed. It was difficult to find out real user of upcycling fashion goods around us since upcycling fashion products are not yet commercially pervasive. Thus, a survey which was using experiment method was conducted.

Previous survey was conducted for thirty university students who took fashion-related classes in order to select upcycling fashion brands with relatively high awareness. They were instructed to write down the upcycling fashion brand names that they knew. Most university students did not know about upcycling fashion brands and only few students wrote down the upcycling fashion brand names. Based on the frequency, ‘Re:code’ was selected as a domestic example brand and ‘Freitag’ was selected as a foreign example brand of upcycling fashion brand. Using these two brands, the two stimuli were developed. These stimuli were simply designed to include photos and product brand names (Freitag and Re:code), as well as product descriptions including functions, uses, and prices.

Respondents were first instructed to read a sentence about the concept of upcycling fashion goods. They were then exposed to two stimuli. After the respondents were exposed to the stimuli for three minutes, they were asked to answer a questionnaire.

Measures

A seven-point Likert scale (ranging from 1=strongly disagree to 7=strongly agree) was adopted to measure concepts, and

Cronbach’s α co-efficient scores for each concept met the acceptability criterion (Fornell & Larcker 1981). LOHAS consumption tendency was defined as the tendency to want to consume something considering sustainability as well as health. LOHAS consumption tendency was measured using five items adapted from Lee (2005) and Song (2007) (Cronbach’s $\alpha=0.863$). PCE was defined as the extent to believe that the person’s behavior can give effects or differences in problem solving (Ellen *et al.*, 1991). PCE was measured using three items adapted from Roberts (1996), Huh (2011), and Koh and Noh (2009) (Cronbach’s $\alpha=0.866$). Trust was defined as the degree of belief toward reliability, professionalism, and favorability for the upcycling fashion goods (Gefen & Straub, 2004). Trust was measured using three items adapted from Jarvenpaa *et al.* (2000) and Park and Noh (2012) (Cronbach’s $\alpha=0.903$). Purchase intention was defined as the degree that the respondents intended to buy upcycling fashion goods. Purchase intention regarding upcycling fashion goods was measured by using two items adapted from Davis (1989) and Park and Noh (2012) (Cronbach’s $\alpha=0.889$).

The pool of all measurements is shown in Table 1. The reliability and validity of all measurements were verified through an analysis that is reported on in the results section below.

Sample Characteristics

The sample characteristics were as follows. Of the respondents, 64.3% were female and 35.7% were male, while 36.23% were

Table 1. Measurement items

Variables	Items	Related studies
LOHAS consumption tendency	LCT1. I prefer the products of company which is sharing the value of LOHAS consumers	Lee (2005), Song (2007)
	LCT2. I am active in environmental protection	
	LCT3. I prefer the products manufactured by technique of sustainability	
	LCT4. I actively promote the benefits of eco-friendly product around	
	LCT5. The impact of the global dimension is an essential factor for consideration when purchasing	
PCE	PCE1. I could even lead upcycling fashion products consumption of others by purchasing upcycling fashion products	Roberts (1996), Huh (2011) Koh & Noh (2009)
	PCE2. My use of upcycling fashion goods will pull other consumers’ sympathy	
	PCE3. If I use upcycling fashion goods, it can have a positive effect on the environment and society	
Trust	TR1. The purchase of upcycling fashion goods is reliable	Jarvenpaa et al. (2000) Park & Noh (2012)
	TR2. I trust upcycling fashion goods	
	TR3. I trust upcycling fashion goods itself	
Purchase intention	PI1. I have an intention to purchase upcycling fashion goods	Davis (1989) Park & Noh (2012)
	PI2. I have a possibility to purchase upcycling fashion goods	

sophomores, 32.7% were juniors, 24% were seniors, 4.1% were freshmen, and 3.1% were university students at other levels. Of these respondents, 22.7% earned \$4,000 to \$6,000 for their monthly household income, 19.1% earned \$3,000 to \$4,000, 18.6% earned \$2,000 to \$3,000, 16.0% earned less than \$2,000, 13.9% earned \$6,000 to \$8,000, 6.2% earned more than \$8,000, and 3.6% did not know their monthly household income.

Data Analysis

Data were analyzed using confirmatory factor analysis (hereafter CFA) and structural equation modeling. A CFA with maximum likelihood was conducted on the 13 indicators of the four latent variables to further ensure measurements' reliability and validity. Given the successful levels of reliability and validity of the measurements, the fit of the structural model was estimated to test the proposed research model and hypotheses. Two latent variables (LOHAS consumption tendency and PCE) were specified as exogenous variables (i.e., independent variables), while the other two variables (trust and purchase intention) served as endogenous variables (i.e., dependent variables), based on the hypotheses.

Results

Measurement Reliability and Validity Test Results

A CFA suggested that the measurement model exhibited an excellent model fit ($\chi^2=101.717$, d.f.=59, $p=0.000$, GFI=0.929, CFI=0.973, NFI=0.938, RMSEA=0.060). Table 2 presents the descriptive properties of the measurement model.

The alpha estimates ranged from 0.863 to 0.903, which far exceeded the recommended 0.70 threshold (Fornell & Larcker, 1981), thereby showing the satisfactory reliability of all measurements. The excellent results for the fit indices supported the construct validity of each measurement in the model.

Furthermore, construct validity was confirmed by assessing convergent validity and discriminant validity. All CFA loadings ranged from 0.713 to 0.931, and all average variance-extracted (AVE) estimates ranged from 0.633 to 0.752, which exceeded the recommended 0.50 threshold (Fornell & Larcker, 1981). These coefficients provided evidence for convergent validity, suggesting that each construct is well represented by its own indicators.

Discriminant validity between constructs was subsequently assessed using a matrix to compare the AVE of each construct, as well as squared correlations between the constructs (Fornell & Larcker, 1981). As shown in Table 3, all AVEs exceeded squared correlations ranging from 0.146 to 0.286, indicating that all four constructs were distinct from each other.

Structural Model and Hypothesis Test Results

Overall, the structural model fit was excellent ($\chi^2=101.717$, d.f.=357, $p=0.000$, GFI=0.929, CFI=0.973, NFI=0.938, RMR=0.065, TLI=0.964, RMSEA=0.060). In addition, the modification indices showed no critical problems of misfit, and the individual relationships between constructs of interest were thus examined in the model.

The hypothesis testing results are illustrated in Fig. 1.

H1 and H3 predicted that trust in upcycling fashion goods would be influenced by LOHAS consumption tendency (H1) and PCE (H3). As expected, trust in upcycling fashion goods was affected by LOHAS consumption tendency ($t=5.373$, $p<0.001$) and PCE ($t=3.632$, $p<0.001$). Thus, H1 and H3 were supported. Research results suggest that the greater the LOHAS consumption tendency and PCE of young consumers, the more likely they are to trust in upcycling fashion goods. These results support the results of previous studies shown that LOHAS consumption tendency had positive influence on trust (Kong *et al.* 2014) and PCE had positive impact on trust (Moon & Lee, 2012).

H2 and H4 predicted that the purchase intention for upcycling fashion goods would be influenced by LOHAS consumption tendency (H2) and PCE (H4). As expected, purchase intention for upcycling fashion goods was affected by PCE ($t=3.732$, $p<0.001$). Therefore, H4 was supported. This result supports the Vermeir and Verbeke (2008)'s research. However, the relationship between LOHAS consumption tendency and purchase intention for upcycling fashion goods was not supported ($t=1.357$, $p>0.05$). Therefore, H2 was not supported. From the results, it was inferred that LOHAS consumption tendency affected purchase intention of upcycling fashion goods by mediating trust.

Regarding the influence of PCE, the research findings indicate that if consumers believe they can actually affect the environment or society through their individual consumption behaviors

involving upcycling fashion goods, they tend to form trust in upcycling fashion consumption. Such trust also directly increases the likelihood of purchasing upcycling fashion goods, which is consistent with the argument of Roberts (1996) and the findings of previous studies (Kim & Choi, 2005; Vermeir & Verbeke, 2008;

Wesley *et al.*, 2012).

Lastly, H5 predicted that purchase intention regarding upcycling fashion goods would be influenced by trust in upcycling fashion goods. As expected, purchase intention regarding upcycling fashion goods was positively associated with trust in upcycling

Table 2. The result of confirmatory factor analysis and reliability analysis for measures

Variables	Items	Stand. Factor Loading	t	CR	AVE	Cronbach's α
LOHAS consumption tendency	LCT1	0.775	-	0.869	0.633	0.863
	LCT2	0.775	11.037			
	LCT3	0.761	10.819			
	LCT4	0.755	10.735			
	LCT5	0.714	10.081			
PCE	PCE1	0.889	14.600	0.868	0.642	0.866
	PCE2	0.879	-			
	PCE3	0.713	11.384			
Trust	TR1	0.931	15.750	0.904	0.752	0.903
	TR2	0.862	14.524			
	TR3	0.820	-			
Purchase intention	PI1	0.909	-	0.891	0.734	0.889
	PI2	0.884	13.066			

Table 3. The squared correlations and AVE of constructs

	LOHAS consumption tendency (1)	PCE (2)	Trust (3)	Purchase intention (4)
(1)	0.633			
(2)	0.146	0.642		
(3)	0.233	0.165	0.752	
(4)	0.162	0.207	0.286	0.734

Bold values in the diagonal are the AVE for each construct and values at lower diagonal cells are the squared correlations among constructs.

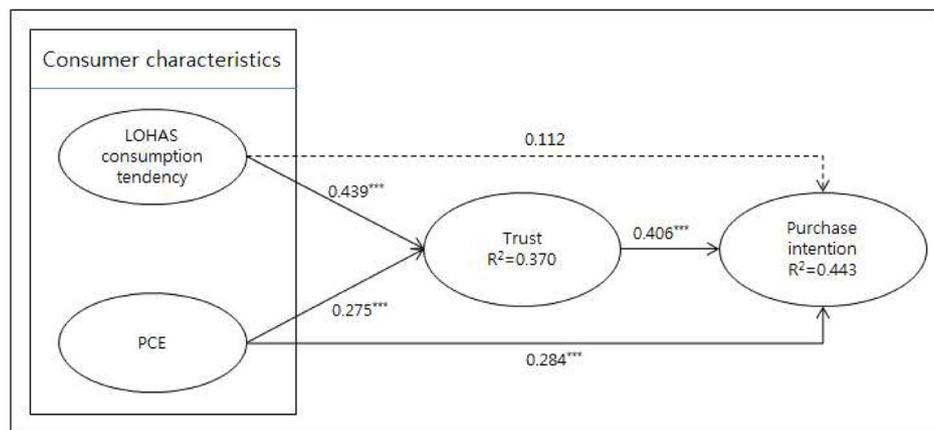


Fig. 1. Hypotheses testing result

Table 4. Model estimation

H	Path Between Variables	Path Coefficient		S.E.	t	Result
		Non Stand. Coeff.	Stand. Coeff.			
H1	LOHAS consumption tendency → Trust	0.494	0.439	0.092	5.373***	Accepted
H2	LOHAS consumption tendency → Purchase intention	0.173	0.112	0.128	1.357	Rejected
H3	PCE → Trust	0.247	0.275	0.068	3.632***	Accepted
H4	PCE → Purchase intention	0.351	0.284	0.094	3.732***	Accepted
H5	Trust → Purchase intention	0.557	0.406	0.117	4.767***	Accepted

*** $p < .001$

fashion goods ($t=4.767$, $p < 0.001$). Therefore, H5 was supported. This finding was consistent with the results of previous studies shown that trust was positively associated with purchase intentions in diverse contexts (Boush *et al.*, 1993; Harris & Goode, 2010; Noh *et al.*, 2011).

Conclusions

The aims of the current study are to contribute to the understanding of young consumers' trust in and acceptance of upcycling fashion, with an emphasis on the roles of LOHAS consumption tendency and PCE. This study constructed a conceptual model and empirically tested it using a sample of young consumers.

The theoretical implications of this study are as follows.

This is one of the few studies that empirically demonstrate the relationship of psychological variables in the context of upcycling fashion goods. Unlike a lot of previous studies in this area, which primarily investigated or profiled the characteristics of specific consumer groups who tend to purchase environmental goods, this study investigated what psychological variables influence young consumers' trust and purchase intentions regarding upcycling fashion goods.

The practical implications of this study are as follows.

Structural equation estimation proved that LOHAS consumption tendency and PCE play important roles in the development of consumer trust in upcycling fashion goods, thereby affecting young consumers' purchase intentions regarding upcycling fashion goods. Also, the result suggests that PCE is a psychological variable that directly influences purchase intention regarding upcycling fashion goods. Unlike PCE, LOHAS consumption tendency did not affect

the purchase intention directly.

The results generate useful insights into the development of effective communication strategies that influence young consumers to trust and purchase upcycling fashion products. Convincing young consumers that they can make a substantial difference in the environment is very important to increasing their level of purchase intention, as well as trust in upcycling fashion goods. Marketers and retailers can leverage the findings of this study by using two antecedent variables-LOHAS consumption tendency and PCE-in segmenting and targeting consumers for their upcycling products, as well as formulating communication messages for below-the-line channels such as websites, blogs, and social network sites. In particular, when marketers and/or retailers segment consumers and formulate communication strategy using LOHAS consumption tendency, they should focus on the way to induce consumers' trust for upcycling fashion goods.

The current study still has room for improvement. First, the empirical model needs to be further extended. More specific marketing variables such as brand preference should also be included in future research. In addition, other mediator and moderator variables might exist that explain some of the unexpected results of the current study. For example, fashion involvement, materialism, altruism could be suggested as a mediator and/or moderator. Increasing external validity by applying the current model to other upcycling fashion product categories could be another venue for future work. Another limitation of the current study is the field study design. Because of the single-study nature of this investigation, replication and extensions to other ages and areas are needed before any generalizations can be made. Lastly, this study has limitation in that there could be a difference in the brand awareness of stimuli when respondents are exposed to stimuli.

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