

[Original Article]

The effects of young consumers' perceptions of environment-friendly shopping bags and environmental consciousness on attitudes and purchase intentions

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Abstract

As consumers' interest in social responsibility (SR) has greatly increased in the last two decades, a growing body of academic research has examined the influence of consumers' environmental consciousness on their attitudes and purchase intentions toward environment-friendly apparel products. Use of environment-friendly shopping bags (EFSB; recycled and reusable bags) is an example of how apparel retailers engage in SR. However, little research has examined consumers' perceptions and their responses to the use of EFSB. To fill this research gap, this study examined the impact of young consumers' perceptions of EFSB and environmental consciousness on their attitudes and purchase intentions toward apparel retailers using EFSB. An online survey was conducted for data collection. A convenience sample of 212 college students was obtained from a large mid-Southern university in the U.S. A simple linear regression analysis was conducted to test all hypotheses. Results showed that young consumers' perceptions of EFSB positively influenced their environmental consciousness and their attitudes toward apparel retailers that use EFSB, which led to purchase intentions toward the retailers. Findings confirmed that young consumers placed a great degree of importance on EFSB and, therefore, would purchase apparel from retailers that use recycled or reusable shopping bags. These findings imply that providing EFSB is important in enhancing positive attitudes and purchase intentions toward apparel retailers.

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I. Introduction

As consumer interest in socially responsible products has greatly increased in recent years (Ha-Brookshire & Norum, 2011; Hamilton & Zilberman, 2006), social responsibility (SR) has become a popular topic across disciplines including apparel and textiles. SR is a multidimensional concept encompassing a wide range of issues related to production, merchandising/retailing and product consumption/disposal processes (Dickson & Eckman, 2006).

A comprehensive definition of SR in apparel and textile businesses refers to:

An *orientation* encompassing the environment and its' people, a philosophy balancing ethics/morality with profit, and an emphasis on the business actions and strategies resulting in positive outcomes for people and the environment; a *philosophy* that balances ethics/morality with profitability, which is achieved through accountability-based business decisions and strategies; and a *desire* for outcomes that positively affect, or do very little harm to the world and its people (Dickson & Eckman, 2006, p.188).

Companies' SR practices have become essential marketing strategies in promoting consumers' environment-friendly consumption of apparel products (Gam, 2011; Hiller Connell, 2011). Researchers indicated that consumers who are concerned about the environment are likely to purchase environment-friendly products (Gam, 2011; Kim, Lee, & Hur, 2012; Lee, Choi, Youn, & Lee, 2012). A recent global consumer survey, conducted by Cone Communications Market Research Company, revealed that almost ninety percent of global consumers consider the environmental impact of manufacturing, consuming, and disposing of a product when they make a purchase decision (Cahan, 2013). Two recent industry reports have consistently found that two-thirds of global consumers are likely to purchase products and services offered by firms engaging in SR business practices (Cahan, 2013; Nielsen Company, 2012). As consumers' demand for environment-friendly products increases, a number of apparel retailers are offering consumers with environment-friendly products (e.g. fair trade, organic, recycled products), whereas environment-friendly shopping bags (EFSB) have gained much less attention from the retailers. For instance, a few apparel retailers (i.e., Nike, Lululemon, Urban Outfitters) are providing consumers with EFSB (i.e., recycled and reusable shopping bags) at the cash wrap. However, a majority of apparel retailers still provide shoppers with plastic shopping bags.

Empirical studies in the context of the apparel

industry mainly focused on the influence of consumer knowledge of the environmental effects of apparel production and environmental concerns on purchase intentions of environment-friendly apparel products (e.g., Gam, 2011; Hiller Connell, 2011; Hill & Lee, 2012; Morgan & Birtwistle, 2009). However, little research has investigated consumers' responses to plastic shopping bag regulations. Consumers who are concerned with the environment may also pay attention to packaging whether it is made from recycled materials or it is reusable shopping bags. Thus, it is important to understand how consumers view packaging (i.e., shopping bags) and what the effect is on attitudes and purchase intentions toward apparel retailers.

The purpose of this study was to investigate how young consumers' perceptions of EFSB influence their environmental consciousness and how their perceptions of EFSB and environmental consciousness influence their attitudes and purchase intentions toward apparel retailers that use EFSB instead of plastic shopping bags. This study contributes to the body of existing sustainability-related literature by providing empirically proven SR initiatives (i.e., EFSB) that enhance young consumers' positive attitudes and purchase intentions toward apparel retailers.

II. Literature Review

1. Theoretical framework: The theory of reasoned action

The theory of reasoned action (TRA) (Ajzen & Fishbein, 1980), one of the most widely known theories for predicting consumer behavior, was adopted as a theoretical framework for this study. According to the TRA, an individual's attitudes toward certain behaviors and subjective norms influence his or her intentions when performing the behaviors. Attitudes are formed by the beliefs that an individual has about performing the particular behavior. Subjective norms refer to social pressures that an individual perceives from referents when performing the behavior. This theory

has been applied to many studies that investigated consumers' purchase behaviors regarding environment-friendly apparel products (e.g., Han & Chung, 2014; Hwang, Lee, & Diddi, 2015; Hyllegard, Yan, Ogle, & Lee, 2012; Kim et al., 2012; Lee et al., 2012; Ma, Littrell, & Niehm, 2012). These studies have found that attitudes were a significant predictor of intentions to purchase environment-friendly apparel products. However, there were consistent findings that indicate deficient influence of subjective norms on consumers' purchase intentions for environment-friendly products (Ma et al., 2012; Marcketti & Shelley, 2009). Based on these previous findings, it was determined to include attitudes and purchase intentions, excluding subjective norms in this research model to predict young consumers' purchase intentions toward apparel retailers that use EFSB.

2. Influence of young consumers' perceptions of EFSB on environmental consciousness and attitudes toward apparel retailer that use EFSB

The elaboration likelihood model (ELM) (Petty & Cacioppo, 1986) explains that a level of elaboration occurs when an individual perceives information. According to the ELM, such information persuades an individual through either the central or peripheral route, depending on the individual's motivation and ability to interpret the information (Petty & Cacioppo, 1986). A high level of elaboration motivates the individual to take the route of central processing, which yields favorable thoughts and attitudes in response to persuasive communication. Based on the ELM, Lee et al. (2012) have suggested that green campaign activities persuade consumers via central route processing. Accordingly, consumers' perceptions of green campaign activities cause changes in their environmental consciousness, which, in turn, influence their green attitudes and behaviors. This positive relationship between consumers' perceptions of retailers' green campaign activities and their consciousness was found in Lee et al.'s (2012) study. As noted above, TRA explains that an individual's

beliefs about a behavior influence his or her attitudes toward the particular behavior (Ajzen & Fishbein, 1980). Therefore, it is plausible to expect that consumers' perceptions of EFSB may influence changes in their environmental consciousness as well as in their attitudes toward apparel retailers that use EFSB. Drawing upon the ELM and TRA, the following two hypotheses were developed for this study:

Hypothesis 1: Young consumers who more highly perceive EFSB (Environment-friendly Shopping Bags) will have greater environmental consciousness than do others.

Hypothesis 2: Young consumers who more highly perceive EFSB will have more favorable attitudes toward apparel retailers that use EFSB than do others.

3. Influence of young consumers' environmental consciousness on attitudes and purchase intentions toward apparel retailers that use EFSB

Environmental consciousness is described as one's concern for the safety and long-term condition of the environment (Kim & Damhorst, 1998). Many studies have indicated that consumers who are concerned about the environment tend to practice environment-friendly behaviors—such as recycling—and exhibit intentions to purchase environment-friendly products (Birgelen, Semeijn, & Keicher, 2009; Gam, 2011; Minton & Rose, 1997; Ohtomo & Hirose, 2007). For example, Birgelen et al. (2009) revealed that German consumers tend to have positive attitudes toward beverages with environment-friendly packaging when there is a high level of environmental awareness.

The TRA predicts that an individual is likely to undertake a particular behavior when he or she possesses a favorable attitude toward performing that behavior (Ajzen & Fishbein, 1980). A number of empirical studies have supported the positive relationship between consumers' attitudes and purchase intentions toward apparel retailers that are engaged in environment-friendly consumption (Butler & Francis, 1997; Han &

Chung, 2014; Hwang et al., 2015; Hyllegard et al., 2012; Kang & Kim, 2013; Kim & Chung, 2011; Yan, Hyllegard, & Blaesi, 2012). Hyllegard et al. (2012) found that green marketing claims on hang tags play an important role in shaping positive attitudes toward apparel brands, which influence purchase intentions toward apparel brands. Hwang et al. (2015) confirmed that young consumers' attitudes toward purchasing apparel made of organic, fair-trade, and recycled materials significantly influenced their purchase intentions for these products. Therefore, it is expected that consumer attitudes toward apparel retailers are positively correlated with purchase intentions toward the apparel retailers that use EFSB. Accordingly, the following two hypotheses were proposed for this study:

Hypothesis 3: Young consumers who have higher environmental consciousness will have more favorable attitudes toward apparel retailers that use EFSB than do others.

Hypothesis 4: Young consumers who have more favorable attitudes toward apparel retailers that use EFSB will have greater intentions to purchase apparel products from the retailer than do others.

III. Method

1. Sample and data collection

A convenience sample of college students was selected from a major mid-South university in the U.S. A web-based survey was administered after receiving the Institutional Review Board's approval for the use of human subjects. A list of e-mail addresses was obtained from the Registrar's Office to recruit students enrolled in one college within the university. As an incentive for their participation, all participants received an opportunity to win one of 40 gift cards valued at \$20 from a major discount retailer through a random drawing. Survey invitation emails were sent to the students that indicated the study's purpose, survey procedures, benefits, confidentiality, participant rights, and

a hyperlink to the web-based survey. Student samples were determined to be appropriate in this study, as previous empirical studies (e.g., Hwang et al., 2015; Ma et al., 2012) have successfully provided theoretical predictions by using similar convenience samples. A homogeneous pool of sample characteristics reduces the probability of a biased conclusion (Calder, Philips, & Tybout, 1981).

2. Survey instrument

In the beginning of the survey, a brief description and example of EFSB (see Appendix 1) was provided in order to help participants understand EFSB. The survey instrument contained multi-item measures of consumers' perceptions of EFSB, environmental consciousness, attitudes, and purchase intentions toward apparel retailers that use EFSB, as well as demographic information. Established measures from previous studies were adopted for all variables. Items were slightly modified to fit the focus of the present research topic. A 5-point Likert-type scale—comprising responses of 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree)—was used for all items. Four items measuring consumers' perceptions of EFSB were adopted from Lee et al. (2012). The reliability for the four items was .92. Six items measuring consumers' environmental consciousness were adopted from Gam (2011). The reliability for these six items was .88. Six attitude items were adopted from Lee, Kim, and Fiore (2010). The reliability for these six items was .98. Six purchase intentions items were adopted from Gam (2011). The reliability for these six items was .94.

IV. Results

1. Sample characteristics

A total of 242 students participated in the online survey. Of the 242 completed responses, 212 were used for data analysis due to missing data in 30 of the responses. As shown in <Table 1>, the majority

<Table 1> Demographic characteristics of sample
(*N* = 212)

Demographic characteristics		Fre- quency	Percent (%)
Age	18~24	193	91
	25~29	9	4.2
	30~34	5	2.4
	35 or older	5	2.4
Gender	Male	33	15.6
	Female	179	84.4
Ethnicity	Black or African American	6	2.9
	Asian American	6	2.9
	Hispanic or Latino	13	6.2
	White or European	175	83.7
	Two or more races	8	3.8
	Other	1	0.5
Education	Working on bachelor's degree	200	94.4
	Working on graduate's degree	12	5.6
Employed	Yes	133	62.7
	No	79	37.3
Household income (US \$)	0~19,999	50	23.9
	20,000~29,999	12	5.7
	30,000~39,999	12	5.7
	40,000~49,999	16	7.7
	50,000~74,999	33	15.8
	75,000~99,999	31	14.8
	100,000 or more	55	26.4

of respondents identified as female (84.4%), between the ages of 18 and 24 (91%), and white or European (83.7%). Most of the respondents identified as undergraduate students (94.4%), currently employed (62.7%), and with a household income of over \$50,000 (57%). The respondents also included graduate students (5.6%). Almost one-third of the respondents (30%) had shopped apparel brands engaged in SR activities and spent \$100-\$300 at least once a month on purchasing products from these brands.

2. Exploratory factor analysis (EFA)

EFA was conducted to extract one factor dimension

for each variable. An eigenvalue measuring greater than 1.0 determined the number of factors extracted for each construct. Items with factor loadings of .50 or higher on one factor, or lower than .30 on the other factor, were retained on one factor. The presence of a Cronbach's alpha value greater than .70 was used as evidence of high internal consistency for each factor (Nunnally & Bernstein, 1994). As shown in <Table 2>, consumer's perceptions of EFSB factor had an eigenvalue of 2.70 and explained 67.47% of the variance for four items. Consumers' environmental consciousness factor had an eigenvalue of 4.25 and explained 70.83% of the variance for six items. Attitudes toward apparel retailers had an eigenvalue of 4.85 and explained 69.28% of the variance for seven items. Purchase intentions toward apparel retailers had an eigenvalue of 4.02 and explained 66.98% of the variance for six items. All the variables had a single dimension and factor loadings ranging from .52 to .90. The Cronbach's alpha coefficients were deemed acceptable for all variables, ranging from .83 to .92.

3. Regression analysis: Hypotheses testing

A simple linear regression analysis was conducted to test all hypotheses. As predicted, all hypothesized paths proved to be statistically significant (Fig. 1). The results indicated that young consumers' perceptions of EFSB yielded a significant positive impact on their environmental consciousness (H1: $\beta = .71$, $t = 14.53$, $p \leq .001$) and on their attitudes toward apparel retailers that use EFSB (H2: $\beta = .59$, $t = 10.60$, $p \leq .001$). Young consumers' environmental consciousness had a significant positive impact on their attitudes toward apparel retailers that use EFSB (H3: $\beta = .53$, $t = 8.92$, $p \leq .001$). Young consumers' attitudes yielded a significant positive impact on their purchase intentions toward the apparel retailers that use EFSB (H4: $\beta = .65$, $t = 12.16$, $p \leq .001$). <Table 3> shows a summary of these findings.

V. Discussion and Conclusion

<Table 2> Results of factor analysis and reliability for all variables

(N = 212)

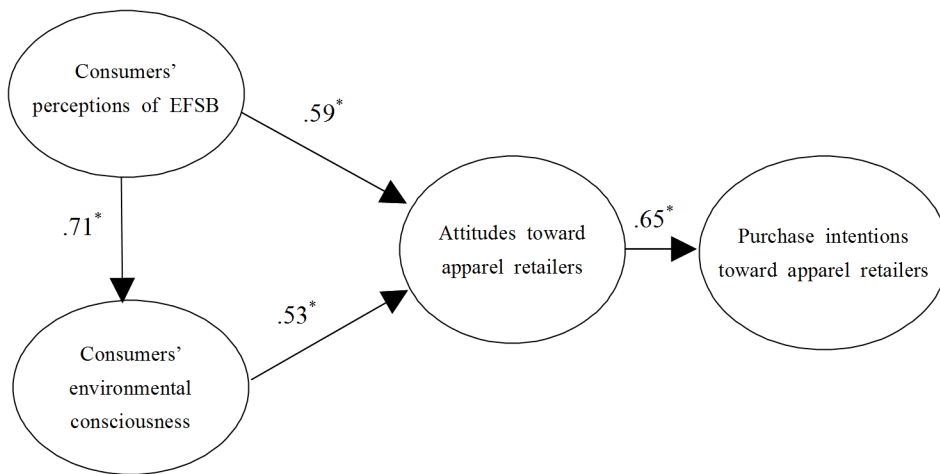
Construct and items	Factor loadings	Eigen-value	Percent of variance
Consumers' perceptions of EFSB ($\alpha = .83$) Regarding use of environment-friendly shopping bags such as recycled and reusable shopping bags, 1. I am satisfied with this activity. 2. This activity is one that I agree with. 3. Participating in this activity is well worth it. 4. I think an apparel retailer engaging in this activity is more valuable than other retailers.	.75 .86 .87 .52	2.7	67.47
Consumers' environmental consciousness ($\alpha = .83$) 1. We should devote some part of our national resources to environmental protection. 2. It is important to me that we try to protect our environment for our future generations. 3. The increasing destruction of the environment is a serious problem. 4. We are not doing enough in this country to protect our environment. 5. It would mean a lot to me if I could contribute to protecting the environment. 6. The environment is one of the most important issues facing the world today.	.75 .77 .90 .80 .83 .79	4.25	70.83
Attitudes toward apparel retailers that use EFSB ($\alpha = .91$) If I were actually shopping at this apparel retailer, this retailer would be: 1. Good 2. Superior 3. Pleasant 4. Excellent 5. Interesting 6. Worthwhile 7. Useful	.82 .75 .83 .84 .71 .85 .81	4.85	69.28
Purchase intentions toward apparel retailers that use EFSB ($\alpha = .92$) 1. I would buy apparel from a retailer that engages in this activity to help support recycling. 2. If available, I would seek an apparel retailer that engages in this activity. 3. I would pay more for apparel from an apparel retailer that engages in this activity. 4. Next time when I go apparel shopping, I am likely to buy apparel from an apparel retailer that engages in this activity. 5. Whenever possible, I buy apparel from an apparel retailer that engages in this activity. 6. I am willing to recommend an apparel retailer that engages in this activity.	.68 .84 .73 .82 .84 .75	4.02	66.98

<Table 3> Summary of regression analysis results

(N = 212)

Variables	β	Std. Error	F	R ²
H1. Perceptions → Environmental consciousness	.71***	.05	211.16	.50
H2. Environmental consciousness → Attitudes	.59***	.05	112.38	.35
H3. Perceptions → Attitudes	.53***	.05	79.59	.28
H4. Attitudes → Purchase intentions	.65***	.07	147.79	.42

Note: *** $p < .001$



Note: *** $p < .001$

<Fig. 1> Research model showing the hypothesized relationships between the variables

This study examined the influence of young consumers' perception of EFSB and environmental consciousness on their attitudes and purchase intentions toward apparel retailers that use EFSB (e.g., recycled or reusable bags). We posited that young consumers' who more highly perceive EFSB will have greater environmental consciousness than do others, and will have more favorable attitudes as well as purchase intentions toward apparel retailers that use EFSB than do others. The regression analysis revealed positive relationships between young consumers' perceptions of EFSB and their environmental consciousness, attitudes, and purchase intentions toward apparel retailers that use recycled or environment-friendly shopping bags. These results indicated that, in determining young consumers' purchase intentions toward apparel retailers, the perceptions of recycled or reusable shopping bags, environmental consciousness, and attitudes were proven to be significant factors.

Specifically, favorable consumer perceptions of EFSB correlated with higher consumer concern for the environment and more favorable attitudes toward apparel retailers that use EFSB. The more concern for the environment that consumers have, the more favorable their attitudes toward apparel retailers that use EFSB.

Likewise, more favorable consumer attitudes toward apparel retailers that use EFSB implied stronger intentions to purchase apparel products from retailers that use EFSB. These findings confirmed that young consumers who highly perceive the benefits of using EFSB also have a high concern for the environment. This group of consumers responded positively to apparel retailers that used EFSB. These findings imply that using recycled and reusable shopping bags will contribute to enhancing apparel retailers' image of being socially responsible, thus achieving a competitive advantage.

The findings of this study also revealed that young consumers' perceptions of EFSB have a greater influence on their attitudes toward apparel retailers that use EFSB than environmental consciousness does. These results imply that consumers who placed greater importance on using recycled or reusable shopping bags would be more likely to purchase apparel products from retailers that use EFSB instead of plastic bags. When marketers target a young demographic, marketing strategies related to EFSB may be required to promote their brand in a positive way. Use of EFSB may be an efficient way to deliver marketing messages that convince consumers of a retailer's identity as being

socially responsible. Promotions of recycling or upcycling campaigns or events may be an effective way to appeal to young consumers.

Generalization of the research findings to other consumer groups is cautioned due to the use of a convenience sample in the mid-South area. Future research might use diverse sample in terms of demographics, in order to generalize the findings. This study focused on young consumers' perceptions of EFSB, environmental consciousness, attitudes, and purchase intentions. It is recommended to study other influential factors on purchase intentions toward apparel retailers engaged in SR practices.

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<Appendix 1> Example of environment-friendly shopping bags (EFSB)

