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Impact of environmentally friendly packaging on consumers' attitudes and patronage intentions toward apparel retail brands

Madalyn M. Smith* and Eunjoo Cho[†]

ABSTRACT

Consumer interest in social responsibility (SR) has greatly increased in recent years. Providing environmentally friendly packaging (recycled and reusable bags) is one example of how apparel retail brands can engage in SR. The objective of this research was to explore the impact of using environmentally friendly packaging on consumers' attitudes and patronage intentions toward apparel retail brands. To conduct this research, undergraduate and graduate students from a major mid-Southern university completed an online survey testing consumers' perceptions, environmental consciousness, attitudes, and patronage intentions. Results from this study revealed that young consumers' perceptions of environmentally friendly packaging has a positive impact on their environmental consciousness and their attitudes toward apparel retail brands engaged in SR. This study also found that consumers' environmental consciousness has a positive impact on their attitudes toward apparel retail brands engaged in SR, which lead to patronage intentions toward the brand. These findings imply that providing environmentally friendly packaging is important in enhancing positive attitudes and patronage intentions toward apparel retail brands. Retailers are advised to consider changing their current packaging to environmentally friendly packaging.

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MEET THE STUDENT-AUTHOR



Madalyn Smith

My hometown is Girard, Kansas and I graduated high school in 2011. I chose the University of Arkansas to pursue a degree in Apparel Merchandising and Product Development with a minor in Marketing.

During my undergraduate career, I was a New Student Orientation Mentor, a Resident Assistant in Humphreys Hall, a Student Ambassador, a member of Students of Retailing Excellence, and involved in the International Conversation Club. During the summer of my sophomore year, I studied fashion design in Florence, Italy. Throughout my junior year, I completed internships at Walt Disney World in Orlando, Fla. and the Space Needle in Seattle, Wash. Throughout these four years in Arkansas, I have learned so many valuable skills I will use later in life. Upon graduation, I will be moving to Seattle, Wash. to be a Junior Buyer for the Space Needle.

My honors research project was inspired by my passion for the environment. I would like to thank Dr. Cho, Dr. Smith, and Mr. Cheramie for all of their guidance on this project.

INTRODUCTION

Social responsibility (SR) in the apparel and textile businesses involves "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" (Dickson and Eckman, 2006). As consumer interest in social responsibility (SR) has greatly increased in the last two decades, SR takes an important role in consumer attitudes and behaviors (Gam, 2011; Hiller Connell, 2011). Recent industry literature has consistently found that two-thirds of U.S. consumers are likely to purchase products and services offered by firms engaging in SR business practices (Cahan, 2013; Nielsen Company, 2012).

To satisfy these socially minded consumers, many companies are incorporating SR activities (e.g. use of recycled or reusable bags) into their businesses to benefit current and future generations by enhancing environmental sustainability. For example, Nike, one of the best one hundred global brands (Interbrand, 2014), is concerned with their environmental impact on employees, consumers, and other communities. Nike has set a long-term goal to manufacture all products with zero waste. One of their efforts is using environmentally friendly packaging such as recycled and reusable bags in the store (Nike, 2014). As an SR initiative, other apparel retail brands (e.g., Lululemon

and Urban Outfitters) are interested in providing reusable shopping bags to all customers making a purchase.

Empirical studies in the context of the apparel industry mainly focused on the environmental impact of consumer knowledge and environmental concerns (Gam, 2011; Hiller Connell, 2011; Hill and Lee, 2012; Morgan and Birtwistle, 2009). However, little research has investigated consumers' responses to plastic shopping bag regulations (Gupta and Somanathan, 2011). To fill this research gap, the current study investigates the effects of using recycled or reusable shopping bags on consumers' attitudes and purchase behaviors in the context of apparel shopping.

The purpose of this study is to examine the effectiveness of recycled or reusable bags, used as a tool of SR activities, in predicting a consumer's attitudes and patronage intentions toward an apparel retail brand that engages in SR initiatives. The theory of reasoned action (TRA) was adopted to explain the formation of consumer attitudes and behavioral intentions (Ajzen and Fishbein, 1980). Due to limited research on reducing plastic bag use, an examination of consumer perceptions on SR initiatives may provide insights into the antecedent role of implementing recycled or reusable bag use in predicting attitudes and patronage intentions toward apparel retail brands.

Previous studies have revealed a positive relationship between consumer perceptions of companies and brands engaged in SR initiatives, their environmental consciousness, and their environmentally friendly behaviors (Lee et al., 2012). Consumer perceptions of SR initiatives appear to indicate a strong influence on consumer awareness of SR activities in turn impacting environmentally friendly behaviors of consumers (Lee et al., 2012). Accordingly, the following hypothesis is proposed (Fig. 1):

Hypothesis 1–Consumers' perceptions of environmentally friendly packaging will have a positive impact on their environmental consciousness.

Previous studies have found consumers' positive perceptions toward the quality of sustainable products have a greater impact on purchase intentions than on consumers' beliefs or opinions (De Pelsmacker and Janssens, 2007; Straughan and Roberts, 1999). Previous research also indicated that consumers show more interest and knowledge of environmentally friendly products as attitudes shift toward being more environmentally conscious (Stisser, 1994). Accordingly, the following hypothesis is proposed:

Hypothesis 2–Consumers' perceptions of environmentally friendly packaging will have a positive impact on their attitudes toward apparel retail brands engaged in SR.

Previous studies have indicated that environmental consciousness leads to eco-friendly behaviors such as recycling and patronage intentions towards environmentally friendly products (Minton and Rose, 1997; Ohtomo and Hirose, 2007). Results from previous studies suggested that a consumers' interest in SR business practices has a

strong influence on their attitudes and purchase decisions (Dickson, 2001; Kozar and Hiller Connell, 2010; Ogle et al., 2004). Accordingly, the following hypothesis is proposed:

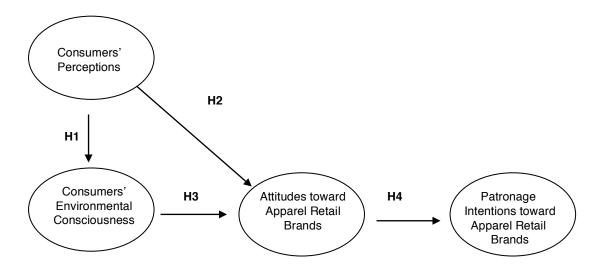
Hypothesis 3–Consumers' environmental consciousness will have a positive impact on their attitudes toward apparel retail brands engaged in SR.

Research has found that consumers who have a positive attitudes toward SR programs are likely to purchase environmentally friendly products (Morel and Kwakye, 2012). Findings from previous studies confirmed that consumers committed to the environment are willing to participate in environmental activities and pay a premium for environmentally friendly products (Kangun and Polonsky, 1995; Ottman, 1995; Polonsky et al., 1997). Accordingly, the following hypothesis is proposed:

Hypothesis 4–Consumers' attitudes toward apparel retail brands engaged in SR will have a positive impact on their patronage intentions toward the apparel retail brands.

MATERIALS AND METHODS

Students from a major mid-Southern university were recruited to conduct a web-based survey. The sample included both males and females, and participants were all 18 years or older. The sample was recruited by sending an invitation email to current undergraduate and graduate students and alumni. The invitational email included the



H1 = Hypothesis 1; H2 = Hypothesis 2; H3 = Hypothesis 3; H4 = Hypothesis 4

Fig. 1. A proposed research model showing the hypothesized relationships between the variables.

purpose of the study, survey procedures, benefits, confidentiality, participant rights, and an online survey link.

A self-administered questionnaire was used for the online survey. Established measures from previous research were used for all variables. Items were slightly modified to fit the focus of the present research topic. A 5-point Likert-type scale ranging from 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), 5 (strongly agree) was used for all items. All reliable and valid scale items measuring consumers' perceptions of environmentally friendly packaging, consumers' environmental consciousness, attitudes, and

patronage intentions toward apparel retail brands engaged in SR were adopted from existing literature (Table 1).

The present study collected data by conducting an online survey using Qualtrics software (Qualtrics, LLC, Provo, Utah). Approval from the university's Institutional Review Board (IRB) was obtained before collecting data for the study. The first page of the survey was the informed consent form, which addressed the purpose of the study, participants' rights and their benefits. Each participant was asked to read the informed consent form and voluntarily decide his or her participation. There were six

Table 1. Instruments for online survey.

	Table 1. Instruments for online survey.							
Variables	Items	Source Lee et al.						
Consumers' Perceptions	•							
Consumers' Environmental Consciousness	 We should devote some part of our national resources to environmental protection. It is important to me that we try to protect our environment for our future generations. The increasing destruction of the environment is a serious problem. We are not doing enough in this country to protect our environment. It would mean a lot to me if I could contribute to protecting the environment. The environment is one of the most important issues facing the world today. 	Gam (2011)						
Consumers' Attitudes	If I were actually shopping at an apparel retail store, this brand would be: • Good • Superior • Pleasant • Excellent • Worthwhile • Useful	Lee, Kim and Fiore (2010)						
Consumers' Patronage Intentions	 I would buy apparel from an apparel retail brand that engages in this activity to help support recycling. If available, I would seek an apparel brand that engages in this activity. I would pay more for apparel from an apparel retail brand that engages in this activity. Next time when I go apparel shopping, I am likely to buy apparel from an apparel retail brand that engaged in this activity. Whenever possible, I buy apparel from an apparel retail brand that engages in this activity. I am willing to recommend an apparel retail brand that engages in this activity. 	Gam (2011)						

parts to the survey; (1) general background of the study, (2) consumers' perceptions of environmentally friendly packaging, (3) consumers' environmental consciousness, (4) attitudes toward apparel retail brands engaged in SR, (5) patronage intentions toward apparel retail brands engaged in SR, and (6) demographic information.

Descriptive statistics were conducted to analyze frequency distribution, means, and standard deviation of data. This study employed exploratory factor analysis (EFA) to extract one factor dimension for each variable. Internal consistency for all factors was assessed using Cronbach's alpha (α) coefficient. Finally, all hypotheses proposed in Fig. 1 were tested through simple linear regression analy-

Table 2. Demographic characteristics of sample (n = 212).

Demographic Characteristics	Frequency	Percent (%)
Age		
18-24	193	91
25-29	9	4.2
30-34	5	2.4
35-39	2	0.9
40-44	0	0
45-49	1	0.5
50-54	0	0
55-59	2	0.9
60 or older	0	0
Gender		
Male	33	15.6
Female	177	83.5
Ethnicity		
Native American	2	0.9
Black or African American	6	2.8
Asian American	6	2.8
Hispanic or Latino	13	6.1
Native Hawaiian	1	0.5
White or European	175	82.5
Two or more races	8	3.8
Other	1	0.5
Education		
Less than High School	0	0
High School Graduate	32	15.1
Some College, no degree	148	69.8
Associate's degree	20	9.4
Bachelor's degree	10	4.7
Graduate or professional degree	2	0.9
Employed		
Yes	133	62.7
No	79	37.3
Household Income (US \$)		
0-19,999	50	23.6
20,000-29,999	12	5.7
30,000-39,999	12	5.7
40,000-49,999	16	7.5
50,000-74,999	33	15.6
75,000-99,999	31	14.6
100,000 or more	55	25.9

sis. For all data analyses, IBM SPSS v. 21 (IBM Corp., Armonk, N.Y.) was used.

RESULTS AND DISCUSSION

A total of 242 students participated in the online survey. Of the 242 completed responses, 212 were used for data analysis because 30 had missing data. Most of the respondents (91%) were either undergraduate or graduate students between the ages of 18 and 24 (Table 2). The sample consisted of a higher percentage of female respondents (83.5%) than male (15.6%). In terms of ethnic background, a majority of the sample was White or

European (82.5%), followed by Hispanic or Latino (6.1%); the rest were either mixed/biracial (3.8%), Black or African-American (2.8%), Asian American (2.8%), Native American (0.9%), Native Hawaiian or Pacific Islander (0.5%), or other (0.5%). Most of the participants had completed some college with no degree (69.8%). The next largest group was high school graduates (15.1%) followed by those who have completed their Associates degree (9.4%), their Bachelors degree (4.7%), and their Graduate or Professional degree (0.9%). The sample consisted of a higher percentage of employed (62.7%) than unemployed (37.3%). Participants were to state their annual family income. If the participant was an independent they were to state their income and if the participant was a dependent they were to state their parents' income. Almost sixty percent of the participants reported their family income was more than \$50,000.

The EFA was conducted to extract one factor dimension for each variable (i.e., consumers' perceptions of environmentally friendly packaging, environmental consciousness, attitudes and patronage intentions toward apparel retail brands engaged in SR). An eigenvalue measuring greater than 1.0 determined the number of factors extracted for each construct. Items with factor loadings of 0.50 or higher on one factor, or lower than 0.30 on the other factor, were retained on one factor. A Cronbach's alpha value above 0.70 was used as evidence of high internal consistency for each factor (Nunnally and Bernstein, 1994). Table

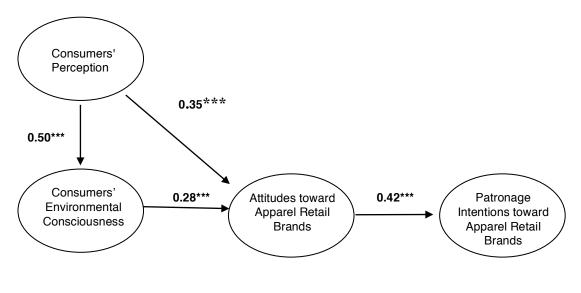
3 shows the results from EFA and reliability tests for all variables.

Simple linear regression analysis was conducted to test four hypotheses. The results showed that all hypotheses were significantly supported as predicted in the proposed model (see Fig. 2). Hypothesis 1 posited that consumers' perceptions of environmentally friendly packaging would have a positive impact on their environmental consciousness. The results indicated that consumers' perceptions of environmentally friendly packaging positively impacted

consumers' environmental consciousness (β = 0.71, t = 14.531, $P \le$ 0.001; Table 4). Hypothesis 2 posited that consumers' perceptions of environmentally friendly packaging have a positive impact on their attitudes toward apparel retail brands engaged in SR. The results indicated that consumers' perceptions of environmentally friendly packaging impacted consumers' attitudes toward apparel retail brands engaged in SR (β = 0.59 , t = 10.60, $P \le$ 0.001). Hypothesis 3 posited that consumers' environmental consciousness has a positive impact on their

Table 3. Results of exploratory factor analysis and reliability for all variables (n = 212).

Construct and Items	Factor Loadings
Consumers' Perception of Environmentally Friendly Packaging (a = 0.83)	
Regarding using environmentally friendly packaging such as paper bags and	
reusable shopping bags,	
1. I am satisfied with this activity.	0.75
2. This activity is one that I agree with.	0.86
3. Participating in this activity is well worth it.	0.87
 I think an apparel retail brand engaging in this activity is more valuable than other brand. 	0.52
Consumers' Environmental Consciousness (a = 0.83)	
We should devote some part of our national resources to environmental protection.	0.75
2. It is important to me that we try to protect our environment for our future generations.	0.77
3. The increasing destruction of the environment is a serious problem.	0.90
4. We are not doing enough in this country to protect our environment.	0.80
5. It would mean a lot to me if I could contribute to protecting the environment.	0.83
6. The environment is one of the most important issues facing the world today.	0.79
Attitudes toward Apparel Retail Brands Engaged in SR (α = 0.91) If I were actually shopping at this apparel retail store, this brand would be:	
1. Good	0.82
2. Superior	0.75
3. Pleasant	0.83
4. Excellent	0.84
5. Interesting	0.71
6. Worthwhile	0.85
7. Useful	0.81
Patronage Intentions toward Apparel Retail Brands Engaged in SR (α = 0.92)	
 I would buy apparel from a brand that engages in this activity to help support recycling. 	0.68
2. If available, I would seek an apparel retail brand that engages in this activity.	0.84
 I would pay more for apparel from an apparel retail brand that engages in this activity. 	0.73
 Next time when I go apparel shopping, I am likely to buy apparel from an apparel retail brand that engages in this activity. 	0.82
Whenever possible, I buy apparel from an apparel retail brand that engages in this activity.	0.84
6. I am willing to recommend an apparel retail brand that engages in this activity.	0.75



*** P ≤ 0.001

Fig. 2. The research model showing the hypothesized relationships between the variables.

attitudes toward apparel retail brands engaged in SR. The results indicated that consumers' environmental consciousness positively impacted their attitudes toward apparel retail brands engaged in SR (β = 0.53, t = 8.92, P ≤ 0.001). Hypothesis 4 posited that consumers' attitudes toward apparel retail brands engaged in SR have a positive impact on their patronage intentions toward the apparel retail brands. The results indicated that consumers' attitude toward apparel retail brands engaged in SR positively impacts their patronage intentions toward apparel retail brands (β = 0.65, t = 12.16, P ≤ 0.001).

This study was designed to examine the positive impact of environmentally friendly packaging initiatives (e.g., recycled or reusable bags) in predicting consumers' attitudes and patronage intentions toward apparel retail brands that engage in the SR initiatives. Simple linear regression analysis reveals positive relationships between consumers' perceptions of environmentally friendly packaging, consumers' environmental consciousness, attitudes, and patronage intentions toward the apparel retail brands engaged in SR. The more favorable the consumers' perceptions of environmentally friendly packaging, the stronger the consumers' concern for the environment and the

more favorable attitudes they have toward apparel retail brands engaged in the SR initiatives. The higher concern for the environment consumers have, the stronger attitudes they have toward apparel retail brands engaged in the SR initiatives. The stronger attitudes a consumer has toward apparel retail brands engaged in SR initiatives, the stronger patronage intentions the consumer has toward those apparel retail brands.

The findings confirmed that young consumers value apparel retail brands that engage in the SR initiatives, such as providing environmentally friendly packaging. Providing environmentally friendly packaging increases young consumers' positive attitudes and patronage intentions toward those apparel retail brands. These findings emphasizes that retailers should consider changing their current packaging to environmentally friendly packaging.

This study empirically verified the theoretical path in the proposed model which confirms TRA is relevant in predicting the effects of consumers' perceptions of environmentally friendly packaging and environmental consciousness on consumers' attitudes toward apparel retail brands engaged in SR and patronage intentions toward the apparel retail brands engaged in SR. The findings of

Table 4. Summary of simple linear regression analysis results (n = 212).

Variables		SE	β	F	R ²	<i>P</i> -value
H1. Perception → Environmental Consciousness		0.05	0.71	211.16	0.50	0.0001
H2. Environmental Consciousness→ Attitudes		0.05	0.59	112.38	0.35	0.0001
H3. Perception→ Attitudes		0.05	0.53	79.59	0.28	0.0001
H4. Attitudes→ Patronage Intentions		0.07	0.65	147.79	0.42	0.0001

B = regression coefficients; SE = standard deviation; $\beta =$ standardized coefficients; F = F statistic; $R^2 = R$ square.

this study revealed that young consumers are likely to purchase apparel products from retail brands engaged in providing environmentally friendly packaging. Providing environmentally friendly packaging will increase profitability by enhancing consumers' positive attitudes and patronage intentions toward that apparel retail brand.

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