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

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Impact of Environmentally Friendly Packaging on Consumers’ Attitudes and Patronage Intentions toward Apparel Retail Brands

An Undergraduate Thesis Proposal
in the School of Human Environmental Sciences

Submitted in partial fulfillment of the requirements for the Honors Program in Dale Bumpers College of Agricultural, Food, and Life Sciences

By

Madalyn Smith

Major: Apparel Merchandising and Product Development

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May 2015

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ABSTRACT

Consumer interest in social responsibility (SR) has greatly increased in recent years. Providing environmentally friendly packaging (recycled, reusable) 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-South University completed an online survey testing consumers’ perceptions, environmental consciousness, attitudes, and patronage intention. 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.
CHAPTER 1. INTRODUCTION

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). A consumer survey, conducted by Cone Communications Market Research Company, found that almost ninety percent of U.S. consumers consider the environmental impact of manufacturing, consuming, and disposing of a product when they make a purchase decision (Cahan, 2013). Recent industry literatures have 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. giving recycled or reusable bags to customers at the cash wrap) into their businesses to benefit current and future generations by enhancing environmental sustainability.

Social responsibility (SR) in 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 & Eckman, 2006, p.188). Positive outcomes of SR business practices include monitoring resource consumption, curbing pollution, and concerns for consumer well being, health, and safety (Dickson, Loker, & Eckman, 2009). 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 retail shopping brands (e.g. Lululemon, Urban Outfitters) are interested in providing reusable shopping bags to all customers making a purchase. However, the majority of retail stores in the U.S. still provide shoppers with either plastic or paper shopping bags.

Beginning July 1, 2015, California will initiate statewide banning of plastic shopping bags. Plastic bags will no longer be available at all retail stores in the entire state and all stores must offer consumers recycled paper bags or bags made of compostable material at a cost of ten cents (Rooney, 2014). With this plastic bag initiative, California will be promoted as a socially responsible state in the U.S. Similarly, retail brands implementing this plastic bag initiative may establish their identities as a socially responsible brand to demonstrate their commitment toward societal obligations. The main problem with plastic shopping bags is that they take up to 1,000 years to degrade and are still toxic to the soil after they have decomposed. The average U.S. household takes home 1,500 plastic bags per year and less than 5% of those are recycled.

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 & Lee, 2012; Kim & Damhorst, 1998; Morgan & Birtwistle, 2009). However, little research has investigated consumers’ responses to plastic shopping bag regulations (Gupta & 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 packaging in this study refers to the bags given to the customers at the cash wrap.

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 & 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.
CHAPTER 2. LITERATURE REVIEW

Theoretical Framework

For the present study, the theory of reasoned action (TRA) was adopted as a theoretical framework (Ajzen, 1988, Ajzen & Fishbein, 1980). The theory suggests a link between attitudes, subjective norms, behavioral intentions, and behaviors. To predict consumer behavior, TRA is most relevant in estimating the effects of using recycled or reusable bags on consumer’s attitudes toward an apparel retail brand in turn influencing consumer patronage intentions toward the apparel retail brand.

Considerable academic research has adopted TRA to study the effects of SR initiatives on consumer attitudes and purchase intentions toward a company (Hyllegard, Yan, Ogle, & Lee, 2012; Hwang, Lee, & Diddi, 2015; Kim, Lee, & Hur, 2012; Lee, Choi, Youn, & Lee, 2012). Empirical research has explored the impact of information provided on apparel labels, hang tags (Hyllegard et al., 2012; Hwang et al., 2015), and environmental marketing claims (Kim et al., 2012; Lee et al., 2012). However, very little research has investigated the effects of using environmentally friendly packaging on consumers’ environmental consciousness, attitudes, and purchase intentions toward apparel retail brands. (Figure 2.1 shows the hypothesized relationships between the variables in this study.)

Consumers’ Perceptions of Environmentally Friendly Packaging, Environmental Consciousness, and Attitudes toward Apparel Retail Brands Engaged in SR

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:

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

To begin explaining motivations of behavior, TRA suggests an individual’s attitudes are influenced by beliefs about a particular behavior (Ajzen & Fishbein, 1980). An increase in consumer perceptions of environmentally friendly practices has highly influenced the way others think of SR activities (Hyllegard et al., 2012). Previous studies have found consumers’ positive perceptions toward the quality of sustainable products has a greater impact on purchase intentions than on consumers’ beliefs or opinions (De Pelsmacker & Janssens, 2007; Straughan & 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’ perception of environmentally friendly packaging will have a positive impact on their attitudes toward apparel retail brands engaged in SR.

Consumers’ Environmental Consciousness, Attitudes, and Patronage Intentions toward Apparel Retail Brands Engaged in SR

Previous studies have indicated that environmental concern is a cause of eco-friendly behaviors such as recycling and patronage intentions towards products based on
environmentally friendly attributes (Ellen, Wiener, & Cobb-Walgren, 1991; Minton & Rose, 1997; Ohtomo & Hirose, 2007; Schwepker & Cornwell, 1991). Findings have suggested that positive attitudes are correlated with sustainable products (Morel & Kwayke, 2012). Research has revealed over half of college students have knowledge of SR practices, but only about one fourth of them have engaged in SR apparel purchasing behaviors (Kozar & Hiller Connell, 2010). A survey of young adults discovered involvement in sustainable business practices influences consumers’ attitudes and purchase intentions toward an apparel brand (Yan, Hyllegard, & Blaesi, 2012). Furthermore, a consumers’ interest or knowledge of SR business practices may have a strong influence on their decisions related to product purchase, product disposal, and store patronage (Butler & Francis, 1997; Dickson, 2001; Hawley, 2006; Hustvedt & Bernard, 2010; Kozar & Hiller Connell, 2010; Ogle, Hyllegard, & Dunbar, 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 attitude toward SR programs are likely to purchase environmentally friendly products (Morel & Kwakye, 2012). A large influence on patronage intentions comes from past purchases (Hyllegard et al. 2012). Consumers who have purchased environmentally friendly products are more likely to purchase them again rather than consumers who have never purchased them before (Morel & Kwakye, 2012). Many consumers are so committed to the environment that they are willing to participate in environmental activities and pay a premium for environmental products (Kangun & Polonsky, 1995; Ottman, 1995;
Polonsky, Calson, Grove, & Kangun, 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.

Figure 2.1. A proposed research model showing the hypothesized relationships between the variables
CHAPTER 3. METHOD

Introduction

This chapter describes the procedures used to analyze the data and assess the items that influence: (1) consumer perceptions of environmentally friendly packaging, (2) consumers’ environmental consciousness, (3) consumers’ attitudes towards apparel retail brands engaged in SR activities, and (4) consumers’ patronage intentions toward apparel retail brands. In using a theoretical approach for this study, the theory of reasoned action (TRA) will assist with estimating whether consumers’ perception of environmentally friendly packaging will have a positive impact on their environmental consciousness and/or their attitudes towards apparel retail brands engaged in social responsibility. This study will also examine whether consumers’ environmental consciousness will have a positive impact on their attitudes toward apparel retail brands engaged in social responsibility. Finally, this study will examine if consumers’ attitudes toward apparel retail brands engaged in social responsibility will have a positive impact on their patronage intentions toward the apparel retail brand. A quantitative research method will be employed to understand factors consumers consider in apparel purchase decisions.

Sample

Students and alumni at a major Mid-South university in the U.S. will be recruited to conduct a web-based survey. The sample will include both males and females, and participants will be 18 years or older. The sample will be recruited by sending an invitational e-mail to current undergraduate and graduate students and alumni. The invitational email will include the purpose of the study, survey procedures, benefits,
confidentiality, participant rights, and online survey link.

**Instruments**

A self-administered questionnaire will be used for the online survey. Established measures from previous research will be used for all variables. Items will be 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), to 5 (strongly agree) will be used for all items. Four items measuring consumer perceptions of environmentally friendly packaging were adopted (Lee et al., 2012). The items include; “I am satisfied with this activity”, “This activity is one that I agree with”, “Participating in this activity is well worth it”, and “I think an apparel retail brand engaging in this activity is more valuable than other brands.” The reliability for the four items was .92.

Six items measuring consumers’ environmental consciousness were adopted (Gam, 2011). The six items include; “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”, and “The environment is one of the most important issues facing the world today.” The reliability for the six items was .88.

Six items measuring attitudes toward apparel retail brands were adopted (Lee, Kim, & Fiore, 2010). The six items include: Good, Superior, Pleasant, Excellent, Worthwhile, and Useful. The reliability for the six items was .98.
Six items measured patronage intentions toward apparel retail brands (Gam, 2011). These six items include; “I would buy apparel from a brand that engages in this activity to help support recycling”, “If available, I would seek an apparel retail 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 engages in this activity”, “Whenever possible, I buy apparel from an apparel retail brand that engages in this activity”, and “I am willing to recommend an apparel retail brand that engages in this activity.” The reliability for the six items was .94. At the end of survey, the questionnaire will include fifteen items measuring the respondent’s demographic characteristics such as age, gender, ethnicity, education level, occupation, and household income (see Table 3.1).

**Data Collection**

The present study will collect data by conducting an online survey using Qualtrics software. The web-based survey will be distributed for a period of 10 days in March 2015. The first page of the survey will be the informed consent form, which will address the purpose of the study and the participants’ rights and benefits. Each participant will be asked to read the informed consent form and voluntarily decide his or her participation. There will be six 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. As an incentive, participants will have an opportunity to win a drawing for one of 40 Wal-Mart gift cards valued at $20.
Approval from the university’s Institutional Review Board (IRB) will be obtained before collecting data for the study. All materials, including the questionnaire, informed consent and e-mails requesting responses, will be sent to IRB for approval. The rights and welfare of participants will be protected from any risks or discomfort. Voluntary participation and confidentiality of data will be assured.

Data Analyses

The data from the survey will be collected online using Qualtrics software. Descriptive statistics will be used to analyze frequency means and standard deviation of the respondent’s demographic characteristics such as age, gender, ethnicity, household income, education level, marital status, geographical location, and occupation. The Statistical Package for the Social Sciences (SPSS) version 22.0 will be employed for data analyses including frequencies, Pearson correlation, reliability, and factor analysis. As the most common estimate of reliability (Peterson, 1994), Cronbach’s alpha (\( \alpha \)) will be used to test the reliability of the adopted instruments. Additionally, all hypotheses proposed in the model will be tested through regression analysis using SPSS program. Regression results will show relationships between the independent and dependent variables.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Items</th>
<th>Source</th>
</tr>
</thead>
</table>
| Consumers’ Perceptions | • I am satisfied with this activity.  
• This activity is one that I agree with.  
• Participating in this activity is well worth it.  
• I think an apparel retail brand engaging in this activity is more valuable than other brands. | Lee et al. (2012) |
| 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 et al. (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) |
CHAPTER 4. RESULTS

This chapter presents the sample characteristics and results of statistical analyses. First, sample characteristics including age, gender, ethnicity, level of education, and household income are reported. Second, results of exploratory factor analysis (EFA) performed on research variables are discussed. Internal consistency for all factors is assessed using Cronbach’s alpha (α) coefficient. Third, results of hypotheses testing are discussed. SPSS 21 is used for all data analyses.

Sample

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 for 30 of the responses. Any response with more than eight questions unanswered was not used in the final data. Most of the respondents (91%) were either undergraduate or graduate student between the ages of 18 and 24. 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 that have completed their Associate’s degree (9.4%), their Bachelor’s 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%). Almost 60 percent of the
participants reported their family income is more than $50,000. The demographic profile of the sample is summarized in Table 4.1.

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Frequency</th>
<th>Percent(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>193</td>
<td>91</td>
</tr>
<tr>
<td>25-29</td>
<td>9</td>
<td>4.2</td>
</tr>
<tr>
<td>30-34</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>35 or older</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>33</td>
<td>15.6</td>
</tr>
<tr>
<td>Female</td>
<td>177</td>
<td>83.5</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black or African American</td>
<td>6</td>
<td>2.8</td>
</tr>
<tr>
<td>Asian American</td>
<td>6</td>
<td>2.8</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>13</td>
<td>6.1</td>
</tr>
<tr>
<td>White or European</td>
<td>175</td>
<td>82.5</td>
</tr>
<tr>
<td>Two or more races</td>
<td>8</td>
<td>3.8</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Graduate</td>
<td>32</td>
<td>15.1</td>
</tr>
<tr>
<td>Some College, no degree</td>
<td>148</td>
<td>69.8</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>20</td>
<td>9.4</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>10</td>
<td>4.7</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>Employed</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>133</td>
<td>62.7</td>
</tr>
<tr>
<td>No</td>
<td>79</td>
<td>37.3</td>
</tr>
<tr>
<td><strong>Household Income (US $)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-19,999</td>
<td>50</td>
<td>23.6</td>
</tr>
<tr>
<td>20,000-29,999</td>
<td>12</td>
<td>5.7</td>
</tr>
<tr>
<td>30,000-39,999</td>
<td>12</td>
<td>5.7</td>
</tr>
<tr>
<td>40,000-49,999</td>
<td>16</td>
<td>7.5</td>
</tr>
<tr>
<td>50,000-74,999</td>
<td>33</td>
<td>15.6</td>
</tr>
<tr>
<td>75,000-99,999</td>
<td>31</td>
<td>14.6</td>
</tr>
<tr>
<td>100,000 or more</td>
<td>55</td>
<td>25.9</td>
</tr>
</tbody>
</table>
Almost 30 percent of participants shop in stores for socially responsible apparel retail brands every month, followed by every week (16.5%), every two or three months (16%), two or three times a year (14.2%), once a year (8.5%), other (8.5%), more than once a week (5.2%), and almost every day (0.9%). Almost 40 percent of participants shop online two or three times a year for socially responsible apparel retail brands, followed by every two or three months (22.2%), once a year (17%), every month (11.8%), more than once a week (5.2%), almost every day (2.8%), and every week (2.4%). Nearly 30 percent of participants yearly spend between $101 and $300 on socially responsible apparel retail brands (28.8%), followed by between $50-$100 (24.5%), less than $50 (23.1%), $301-$600 (15.6%), $601-$1000 (4.7%), and more than $1000 (3.3%). Almost 60 percent of participants buy less than 5 items a year from socially responsible apparel retail brands, followed by 6-10 items (25%), 11-20 items (9.4%), and 21 or more items (7.1%). From this data, consumers are more likely to spend more and buy a larger quantity of items from apparel retail brands in store rather than online. Detailed information of shopping experiences is presented in Table 4.2.
Table 4.2. Shopping Experiences for Socially Responsible Apparel Retail Brands (N=212)

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Frequency</th>
<th>Percent(^a) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Store shop for SRARB</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Almost every day</td>
<td>2</td>
<td>.9</td>
</tr>
<tr>
<td>More than once a week</td>
<td>11</td>
<td>5.2</td>
</tr>
<tr>
<td>Every week</td>
<td>35</td>
<td>16.5</td>
</tr>
<tr>
<td>Every month</td>
<td>63</td>
<td>29.7</td>
</tr>
<tr>
<td>Every two or three months</td>
<td>34</td>
<td>16.0</td>
</tr>
<tr>
<td>Two or three times a year</td>
<td>30</td>
<td>14.2</td>
</tr>
<tr>
<td>Once a year</td>
<td>18</td>
<td>8.5</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>8.5</td>
</tr>
<tr>
<td><strong>Online shop for SRARB</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Almost every day</td>
<td>6</td>
<td>2.8</td>
</tr>
<tr>
<td>More than once a week</td>
<td>11</td>
<td>5.2</td>
</tr>
<tr>
<td>Every week</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>Every month</td>
<td>25</td>
<td>11.8</td>
</tr>
<tr>
<td>Every two or three months</td>
<td>47</td>
<td>22.2</td>
</tr>
<tr>
<td>Two or three times a year</td>
<td>80</td>
<td>37.7</td>
</tr>
<tr>
<td>Once a year</td>
<td>36</td>
<td>17</td>
</tr>
<tr>
<td><strong>Yearly amount spent on SRARB</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $50</td>
<td>49</td>
<td>23.1</td>
</tr>
<tr>
<td>$50-100</td>
<td>52</td>
<td>24.5</td>
</tr>
<tr>
<td>$101-300</td>
<td>61</td>
<td>28.8</td>
</tr>
<tr>
<td>$301-600</td>
<td>33</td>
<td>15.6</td>
</tr>
<tr>
<td>$601-1000</td>
<td>10</td>
<td>4.7</td>
</tr>
<tr>
<td>more than $1,000</td>
<td>7</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Quantity of items from SRARB</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5</td>
<td>124</td>
<td>58.5</td>
</tr>
<tr>
<td>6-10</td>
<td>53</td>
<td>25</td>
</tr>
<tr>
<td>11-20</td>
<td>20</td>
<td>9.4</td>
</tr>
<tr>
<td>21 or more</td>
<td>15</td>
<td>7.1</td>
</tr>
</tbody>
</table>

Note: \(^a\)Sum of percentages may not be equal to 100 due to non-responses.
Socially Responsible Apparel Retail Brand (SRARB)
Exploratory Factor Analysis

EFA was conducted to extract one factor dimension for each variable (i.e., consumers’ perceptions of environmentally friendly packaging, environmental consciousness, attitudes toward apparel retail brands engaged in SR, 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 .50 or higher on one factor, or lower than .30 on the other factor, were retained on one factor. A Cronbach’s alpha value above .70 was used as evidence of high internal consistency for each factor (Nunnally & Bernstein, 1994). Table 4.3 shows the results from EFA and reliability tests for all variables.

Consumers’ Perceptions of Environmentally Friendly Packaging

Based on factor loadings, all four items were retained for the consumers’ perceptions of environmentally friendly packaging factor. The items captured participants’ satisfaction, agreeableness, worth, and value of environmentally friendly packaging. The four-item consumers’ perceptions factor had an eigenvalue of 2.70 and explained over 67% of the variance for the items. Factor loading for items ranged from .52 to .87. This factor had Cronbach’s alpha (α) of .83.

Consumers’ Environmental Consciousness

Based on factor loadings, all six items were retained for the consumers’ environmental consciousness factor. The six-item consumer’s environmental consciousness factor had an eigenvalue of 4.85 and explained over 69% of the variance for the items. Factor loadings for items ranged from .75 to .90. This factor had a Cronbach’s alpha (α) of .83.
**Attitudes toward Apparel Retail Brands Engaged in SR**

All seven items measuring attitudes toward apparel retail brands engaged in SR were retained. The items captured the participants’ beliefs and opinions of apparel retail brands engaging in providing environmentally friendly packaging. This seven-item factor on attitudes had an eigenvalue of 4.02 and explained nearly 67% of the variance for these items. Factor loadings ranged between .71 and .85, which reflect consumers’ positive attitudes toward apparel retail brands engaged in this activity. Cronbach’s alpha (α) indicated internal consistency of .91.

**Patronage Intentions toward Apparel Retail Brands Engaged in SR**

The patronage intentions factor retained all six items. These items captured the willingness of consumers to purchase products from retail apparel brands that engage in providing environmentally friendly packaging. The six items measuring patronage intentions had an eigenvalue of 3.64 and explained over 60% of variance for the items. Factor loading were high ranging between .68 and .84. Cronbach’s alpha (α) was .92.
Table 4.3. Results of EFA and Reliability for All Variables (N=212)

<table>
<thead>
<tr>
<th>Construct and Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
</table>
| **Consumers’ Perceptions of Environmentally Friendly Packaging (α = .83)**<br>Regarding using environmentally friendly packaging such as paper bags and reusable shopping bags,<br>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 retail brand engaging in this activity is more valuable than other brand.  |
|                     | .75             |
|                     | .86             |
|                     | .87             |
|                     | .52             |
| **Consumers’ Environmental Consciousness (α =.83 )**<br>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             |
| **Attitudes toward Apparel Retail Brands Engaged in SR (α =.91 )**<br>If I were actually shopping at this apparel retail store, this brand would be:<br>1. Good  
2. Superior  
3. Pleasant  
4. Excellent  
5. Interesting  
6. Worthwhile  
7. Useful  |
|                     | .82             |
|                     | .75             |
|                     | .83             |
|                     | .84             |
|                     | .71             |
|                     | .85             |
|                     | .81             |
| **Patronage Intentions toward Apparel Retail Brands Engaged in SR (α =.92 )**<br>1. I would buy apparel from a brand that engages in this activity to help support recycling.  
2. If available, I would seek an apparel retail brand that engages in this activity.  
3. I would pay more for apparel from an apparel retail brand that engages in this activity.  
4. Next time when I go apparel shopping, I am likely to buy apparel from an apparel retail brand that engages in this activity.  
5. Whenever possible, I buy apparel from an apparel retail brand that engages in this activity.  
6. I am willing to recommend an apparel retail brand that engages in this activity.  |
|                     | .68             |
|                     | .84             |
|                     | .73             |
|                     | .82             |
|                     | .84             |
|                     | .75             |
Testing Hypotheses

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 Figure 4.1). Table 4.4 shows the summary of these findings.

![Figure 4.1. The Research Model Showing the Hypothesized Relationships between the Variables](image)

*** $p \leq .001$

Figure 4.1. The Research Model Showing the Hypothesized Relationships between the Variables

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 ($\beta = .71, t = 14.531, p \leq .001$). Hypothesis 2 posited that consumers’ perceptions of environmentally friendly packaging has 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 ($\beta = .59$, $t = 10.60, p \leq .001$). Hypothesis 3 posited that consumers’ environmental consciousness has a positive impact on their 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 ($\beta = .53$, $t = 8.92, p \leq .001$). 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 ($\beta = .65$, $t = 12.16, p \leq .001$).

Table 4.4. Summary of Simple Linear Regression Analysis Results (N=212)

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE</th>
<th>$\beta$</th>
<th>F</th>
<th>$R^2$</th>
<th>$P$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1. Perceptions $\rightarrow$ Environmental Consciousness</td>
<td>.75</td>
<td>.05</td>
<td>.71</td>
<td>211.16</td>
<td>.50</td>
<td>.001</td>
</tr>
<tr>
<td>H2. Environmental Consciousness $\rightarrow$ Attitudes</td>
<td>.53</td>
<td>.05</td>
<td>.59</td>
<td>112.38</td>
<td>.35</td>
<td>.001</td>
</tr>
<tr>
<td>H3. Perceptions $\rightarrow$ Attitudes</td>
<td>.44</td>
<td>.05</td>
<td>.53</td>
<td>79.59</td>
<td>.28</td>
<td>.001</td>
</tr>
<tr>
<td>H4. Attitudes $\rightarrow$ Patronage Intentions</td>
<td>.83</td>
<td>.07</td>
<td>.65</td>
<td>147.79</td>
<td>.42</td>
<td>.001</td>
</tr>
</tbody>
</table>
CHAPTER 5. DISCUSSION AND IMPLICATIONS

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 revealed positive relationships between consumers’ perceptions of environmentally friendly packaging, consumers’ environmental consciousness, attitudes, and patronage intentions toward apparel retail brands engaged in SR reveals. 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 more 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 will have toward those apparel retail brands.

The findings confirmed that consumers value apparel retail brands that engage in the SR initiatives, such as providing environmentally friendly packaging. Providing environmentally friendly packaging increases consumers’ positive attitudes and patronage intentions toward those apparel retail brands. These findings emphasize 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 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 enhanced consumers’ positive attitudes and patronage intentions toward that apparel retail brand. In conclusion apparel retail brands will benefit from providing reusable or recycled packaging at the cash wrap for customers.
CHAPTER 6. LIMITATIONS AND FUTURE RESEARCH

Generalization of the research findings is limited because of the use of a convenience sample within a limited geographical location. Future research may use a sample that is more heterogeneous in terms of gender, age, ethnicity, income levels, marital status, and geographic location to confirm the findings. The research findings are also limited because of the specific brands given as examples in the survey. Different retail apparel brand examples could affect results. The findings from this study provide a foundation for future research on the relationships among consumers’ perceptions, environmental consciousness, attitudes, and patronage intentions. Future research could also be conducted without studying undergraduate and graduate students and alumni to understand the way a completely different demographic affects consumers’ opinions of apparel retail brands engaged in providing recycled packaging. In order to obtain more in-depth reasoning behind consumers’ purchase intentions, other variables, that are considered SR activities that retail apparel brands engage in, could be studied. Another option for future studies could be testing the same variables including consumers’ perceptions, environmental consciousness, attitudes, and patronage intentions with other retailers (e.g., food and consumer goods) that provide environmental packaging.
REFERENCES


APPENDICES
APPENDIX A: IRB APPROVAL

March 9, 2015

MEMORANDUM

TO:       Madalyn Smith
          Eunjoo Cho

FROM:     Ro Windwalker
          IRB Coordinator

RE:       New Protocol Approval

IRB Protocol #:  15-02-555

Protocol Title: Impact of Environmentally Friendly Packaging on Consumers’ Attitudes and Patronage Intentions toward Apparel Retail Brands

Review Type: ☒ EXEMPT ☐ EXPEDITED ☐ FULL IRB

Approved Project Period: Start Date: 03/06/2015 Expiration Date: 03/05/2016

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form Continuing Review for IRB Approved Projects, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (https://vpred.uark.edu/units/rscp/index.php). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 1,000 participants. If you wish to make any modifications in the approved protocol, including enrolling more than this number, you must seek approval prior to implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.
Dear University of Arkansas Student,

We are surveying students of Dale Bumpers College of Agricultural, Food and Life Sciences at the University of Arkansas to explore consumers’ perceptions, attitudes, and purchase intentions toward socially responsible apparel retail brands.

We would greatly appreciate if you could take 7 minutes or less to complete an online survey connected to the link below. It inquires about your opinion of socially responsible apparel retail brand business practices. By beginning the survey you are providing consent for your responses to be included in this study. All information you provide will remain confidential and will be de-identified for all analyses. There are no known or anticipated risks from participation in this study.

At the end of the survey, you may choose to participate in a drawing for a $20 Visa cash card. Forty of the participants entered in the drawing will win. Participation in the drawing is optional. All information collected for the drawing is separate from the study and will be destroyed after winners are contacted.

If you have any questions about this survey you can contact me, Madalyn Smith, by phone (620) 238-0795 or email at mxs032@uark.edu or my honors professor, Eunjoo Cho, by phone (479) 575-4599 or email at ejcho@uark.edu. Results from this survey will provide future researchers and apparel retail brands valuable knowledge that can be used to enhance their business practices toward becoming more socially responsible. Thank you for your participation.

Click HERE for the survey from March 13th to March 20th, 2015.

Sincerely,

Madalyn Smith
Honors Undergraduate Student
School of Human Environmental Sciences
University of Arkansas
APPENDIX C: CONSENT FORM

Informed Consent Document

Impact of Environmentally Friendly Packaging on Consumers’ Attitudes and Patronage Intentions toward Apparel Retail Brands

Investigators: Madalyn Smith will be conducting the survey and will be responsible for obtaining consent through this online survey under the mentorship of Dr. Eunjoo Cho, faculty advisor. Madalyn is an Honor’s student in the School of Human Environmental Sciences.

Purpose: This is an academic research project. The purpose of this research is to examine consumers’ perception of environmentally friendly packaging. You are invited to participate in this research as University of Arkansas students and alumni. We appreciate your willingness to participate in this survey.

Procedures: You will be asked to complete an online survey that will take approximately 15 minutes or less. The questions will consist of six parts asking your opinions of environmentally friendly business practices and personal environmental norms. The last part will ask to provide your general background information including age, gender, and ethnicity. All the questionnaires will use numeric codes for analytical purpose. You will indicate your response by clicking the number from 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), to 5 (strongly agree) that best describes your experiences for each question. There are no risks from participating in this study.

Benefits: Participating in this research study will provide important marketing information for socially responsible apparel brands to improve their business practices towards becoming more environmentally friendly. This research will also assist the university with reaching their goal of becoming a top 50 public research university. As an incentive, 40 of the participants will win a $20 Visa cash card.

Confidentiality: All of your responses will be recorded anonymously, and all data collected will be kept confidential to the extent allowed by law and University policy. All interview data will be saved on password-protected computers with access limited to the researcher. If results are published, only summary data rather than individual responses will be reported.

Participant Rights: Your participation in this study is completely voluntary and you have the right to refuse to participate or leave the study at the time without any penalty. If you decide to not participate in the study or leave the study early, it is totally up to you. You can skip any question you do not feel comfortable answering.

Contacts: The primary investigator, Madalyn Smith, may be contacted at (620) 238-0795; mxs032@uark.edu. The primary investigator’s advisor, Dr. Eunjoo Cho, may be contacted at (479) 545-4599; ejcho@uark.edu. For questions or concerns about your rights as a research participant, please contact Ro Windwalker, the University’s IRB Coordinator, at (479) 575-2208 or by e-mail at irb@uark.edu.

By beginning the survey, you acknowledge that you have read the information and agree to participate in this research. You are free to withdraw participation at any time without penalty. Thank you for your time and participation.

Expires: 03/06/2015
Approved: 03/06/2015
IRB #15-02-555
Expires: 03/05/2016
Although many cities have taken the initiative to ban plastic bags, California is the first state to pass a law banning plastic bags. Now all businesses in California, must provide either paper bags or reusable shopping bags. **Paper bags and reusable shopping bags are examples of environmentally friendly packaging.** Many apparel retail brands (e.g., Lululemon and Urban Outfitters) have already engaged in providing environmentally friendly packaging to each customer.

**Part I.** Please think of your opinions of environmentally friendly packaging for a few seconds before looking at the questionnaire. Please click on the number that best describes your opinions for each question.

Regarding using environmentally friendly packaging such as paper bags and reusable shopping bags,

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

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 retail brand engaging in this activity is more valuable than other brand.

**Part II.** Please click on the number that best describes your opinions of environmental concern for each question.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

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.

**Part III.** Think of an apparel retail brand that engages in providing environmentally friendly packaging (e.g., Lululemon, Urban Outfitters, Patagonia, REI, etc.) Please click on the number that best describes your opinions of **apparel retail brand** for each question.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

If I were actually shopping at this apparel retail store, this brand would be:

1. Good
2. Superior
3. Pleasant
4. Excellent
5. Interesting
6. Worthwhile
7. Useful

**Part VI.** Please click on the number that best describes your opinions of **environmentally friendly packaging** for each question.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. I would buy apparel from a brand that engages in this activity to help support recycling.
2. If available, I would seek an apparel retail brand that engages in this activity.
3. I would pay more for apparel from an apparel retail brand that engages in this activity.
4. Next time when I go apparel shopping, I am likely to buy apparel from an apparel retail brand that engages in this activity.
5. Whenever possible, I buy apparel from an apparel retail brand that engages in this activity.
6. I am willing to recommend an apparel retail brand that engages in this activity.

**Part V.** The questions below ask about your **general background information**. Please check the appropriate information.

1. What is your age?
   - 18-24
   - 25-29
   - 30-34
   - 35-39
   - 40-44
   - 45-49
   - 50-54
   - 55-59
   - 60 or more

2. What is your gender? Male Female

3. What is your ethnicity? Please check one.
Native American____ Black or African-American ____Asian American____
Hispanic or Latino ____ Native Hawaiian or Pacific Islander ___White or
European____ Two or more races ____ Other (Please specify ___________)

4. What is the highest degree or level of school you have completed?
   _____Less than high school
   _____High school graduate (includes equivalency)
   _____Some College, no degree
   _____Associate’s degree
   _____Bachelor’s degree
   _____Graduate or professional degree

5. Are you employed? _____Yes_____No
   If yes, what is your occupation?
   _____Agriculture, forestry, fishing and hunting, and mining
   _____Arts, entertainment, and recreation, and accommodation and food services
   _____Construction
   _____Educational services, and health care and social assistance
   _____Finance and insurance, real estate and rental, and leasing
   _____Information and technology
   _____Manufacturing
   _____Professional, scientific, and management, and administrative and waste
     management services
   _____Public administration
   _____Retail trade
   _____Transportation and warehousing, and utilities
   _____Wholesale trade
   _____Other services, except public administration

6. Are you an undergraduate or graduate student? _____Yes______No

7. What is your household income level? If you are a dependent student, please
   list your parent’s income.
   _____0- $19,999
   _____$20,000-$29,999
   _____$30,000-$39,999
   _____$40,000-$49,999
   _____$50,000-$74,999
   _____$75,000-$99,999
   _____$100,000-or more
   _____5 or more

8. How often on average do you go shopping in STORES for socially responsible retail brands?
   Almost every day _______
   More than once a week______
Every week ______
Every month ______
Every two or three months ______
Twice or three times a year ______
Once a year ______
Other, describe___________

9. How often on average do you go shopping ONLINE to purchase items from socially responsible retail apparel brands?
   Almost every day ______
   More than once a week____
   Every week ______
   Every month ______
   Every two or three months ______
   Twice or three times a year ______
   Once a year ______
   Other, describe___________

10. How much do you spend on socially responsible apparel retail brands (i.e. Patagonia, Nike, Lululemon, etc.) per year?
    Less than $50 _____$50-100 _____$101-300 _____
    $301-600 _____$601-1000 _____ more than $1,000 _____

11. How many items do you buy from socially responsible apparel retail brands per year?
    Less than 5 _____ 6-10_____11-20 _____21 or more_____

12. If you would like to be in the drawing for one of thirty gift cards, please provide your email address. (This information will only be used for sending a gift card.)
    ____________________________________________