The Normative Social Influence on Eco-Friendly Consumer Behavior: The Moderating Effect of Environmental Marketing Claims

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Abstract
Building on the normative conduct theory and the extant literature of environmental marketing, this study explores whether eco-friendly consumer behavior in the apparel market is influenced by variations in social norms and by consumer’s environmental concern. An online survey was administered with a total of 332 members from a U.S. consumer panel. The results confirm the significant effects of the type of social norms (i.e., injunctive versus descriptive norms) and the level of environmental concern on purchase intentions. Furthermore, the type of environmental marketing claim (i.e., extrinsic versus intrinsic claims) is shown to moderate the positive influences of injunctive norms and of the level of environmental concern on purchase intentions. Theoretical and managerial implications are discussed.

Keywords
social norms, environmental concern, environmental marketing claims, eco-friendly consumer behavior

Companies are increasingly incorporating environmental claims regarding materials and packaging into the advertising of their products. The popularity of products featuring such claims has been well documented: As consumers become more interested in and knowledgeable about environmentally friendly products, their attitudes and behaviors are growing greener (Stisser, 1994). They often look for products claim to be green (or green products hereafter) by

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scrutinizing garment tags and product packaging in an effort to ascertain whether these are made from environmentally friendly materials (Phau & Ong, 2007). Furthermore, the public is able to make efforts to consume products that are considered green or eco-friendly (eco-friendly consumption hereafter) to a greater extent than ever before, thanks to the increasing application of environmental strategies to company brand names and logos, advertisements, and websites (Yan, Hyllegard, & Blæsi, 2012). But what determines whether consumers respond to and purchase environmentally friendly products?

A considerable number of studies have attempted to identify the relationship between environmentally friendly behavior and demographic variables. However, they have found that demographic characteristics cannot be used to predict environmentally friendly behavior or behavioral intentions (Minton & Rose, 1998; Schwepker & Cornwell, 1991). More recently, several studies have concentrated on consumer segmentation by examining environmental behavior (D’Souza, 2004; D’Souza, Taghian, & Lamb, 2006; Straughan & Roberts, 1999), from a demographic perspective, and investigating the dynamics among the demographic characteristics of consumers, environmental knowledge, and perceived product benefits.

An extensive literature on social psychology has focused on the importance of social influences and individual attitudes toward the environment in eco-friendly consumption (e.g., Aertsens, Verbeke, Mondelaers, & Huylenbroeck, 2008), with a framework linking the existing theories such as the norm activation theory (Schwartz, 1977), the theory of reasoned action (TRA; Ajzen & Fishbein, 1980), the normative conduct theory (Cialdini, Reno, & Kallgren, 1990), the theory of planned behavior (TPB; Ajzen, 1991), the value–belief–norm theory (Stern, Dietz, Abel, Guagnano, & Kalof, 1999), as well as the attitude–behavior–context theory (Stern, 2000).

However, little research has been performed within the context of apparel consumption, presumably because the textile and apparel industry is considered an environmentally unfriendly field and the market for environmentally friendly apparel is relatively small (Yan et al., 2012). Consequently, the environmental impact of eco-clothing is evaluated only through a limited and narrow perspective that looks for the use of organic fabric, recycled materials, or environmentally friendly production methods (Beard, 2008; Fletcher, 2008). Companies are increasingly attempting to implement a variety of approaches to their brand campaigns and aiming to enhance the environmentally friendly qualities of their products (Lipson, 2008). Nonetheless, it is unclear whether consumers actually distinguish between different marketing claims and whether such claims are related to their environmental behaviors. Some research indicates that consumers emphasize messages that publicize a company’s environmental activism over the attributes of the company’s product (Kim & Damhorst, 1999), but some suggest that the public responds more positively to product-related claims than to activism-related claims (Phau & Ong, 2007).

This study aims to address the gap in the marketing literature by exploring the effectiveness of different factors in predicting a consumer’s intention to purchase apparel that features an environmental claim. This study considers the importance of the descriptive and injunctive norms described by normative conduct theory (Cialdini, Reno, & Kallgren, 1990) as well as the role of consumers’ environmental concern in determining such intentions. Therefore, the current study provides empirical evidence that shows how the different kinds of social norms make distinct contributions to eco-friendly consumer behaviors. Further, this study attempts to demonstrate that the impact of environmental attitudes and norms on consumer purchase intentions depends on the types of environmental marketing claims made by companies. Due to the limited amount of research on different types of marketing claims and their effects, the moderating role of environmental marketing claims on consumer purchase intentions is a factor well worth examining.
Literature Review

Normative Conduct Theory

The theory of normative conduct proposes that human behavior is motivated by two kinds of norms: descriptive norms and injunctive norms. According to Cialdini et al. (1990), descriptive norms are defined as what others do, while injunctive norms can be described as what others think a person should do. In other words, descriptive norms refer to the perception of other’s behavior (the norms of is) and are based on observations of how people act in a given situation. Injunctive norms, on the other hand, refer to the perceived approval of a certain behavior (the norms of ought) and help an individual determine what is accepted or rejected by a certain culture. The TRA and the TPB refer to subjective norms, which may be defined as perceived social pressure to either carry out or refrain from a certain behavior, and many researchers have investigated its impact on a wide range of behaviors, including environmental behaviors. According to Ajzen and Fishbein (1980), injunctive norms determine behavioral intention because they act as social sanctions to perform a given behavior. In the context of environmental behavior, Ohtomo and Hirose (2007) show that recycling increases when people become aware of the injunctive norm supporting the practice. This finding conforms to the results of Cialdini (2003).

In contrast, the literature on social influence argues that descriptive norms play an important role in determining behavior because people obtain information and guidance regarding proper social conduct from others’ actions and use this information when making their own behavioral decisions (Rivis & Sheeran, 2003). The assumption of “if everyone is doing it, it must be a sensible thing to do” (Cialdini, Kallgren, & Reno, 1991, p. 1015) suggests that descriptive norms often have effective information processing advantages over injunctive norms. For example, a littering experiment found that people were more likely to litter when they saw a model drop trash into a dirty environment because their attention had been drawn to a prolittering descriptive norm (Cialdini, 2003).

People are influenced by the behavior of others because behavior often occurs in a social context (Biel & Thøgersen, 2007). The strength or salience of both descriptive and injunctive norms in any given context depends on a variety of situational factors. While the distinction between the two has been verified by many studies (Sheeran & Orbell, 1999; White, Terry, & Hogg, 1994), both have implications for environmentally friendly behaviors. Therefore, Cialdini (2003) argues that the most effective norm-based approach to protecting the environment would be to combine descriptive and injunctive norms in information campaigns. Cialdini also indicates that these norms influence the intention to recycle, and Ohtomo and Hirose (2007) show that they affect behavior willingness and intentions. Therefore, we posit the following hypothesis:

Hypothesis 1a: Descriptive norms will positively influence purchase intentions.
Hypothesis 1b: Injunctive norms will positively influence purchase intentions.

Environmental Concern

Environmental concern refers to a general attitude or value orientation toward protecting the environment (Ajzen, 1989; Minton & Rose, 1997; Takala, 1991). According to Schwartz (1977), concerns about specific environmental issues come from an awareness of the harmful consequences of environmental problems from the perspective of a certain value orientation (Schultz, 2001), which may be tied to self-interest, anthropocentric altruism, or ecocentrism (Stern, 1992). That is, attitudes
toward the environment are based on the relative importance that people place on self, other people, or the biosphere (Schultz, 2001; Stern & Dietz, 1994).

A considerable amount of research has been done on environmental concern. For example, Jones and Dunlap (1992) and Van Liere and Dunlap (1980) have examined the relationship between environmental concern and demographic factors such as age, income, and education, and Fransson and Gärlling (1999) and Schultz (2001) have investigated the structure and measurement of environmental concern. Importantly, previous studies indicate that environmental concern is a determinant of eco-friendly behaviors such as recycling and choosing products based on environmentally friendly attributes (Ellen, Wiener, & Cobb-Walgren, 1991; Minton & Rose, 1997; Ohtomo & Hirose, 2007; Schwepker & Cornwell, 1991). 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, & Kangun, 1997). Schwepker and Cornwell (1991) also show that attitudes toward litter and ecologically conscious living are related to intentions to purchase ecologically packaged products. Moreover, Yan et al. (2012) have shown that an individual’s concern for the environment influences decisions related to apparel consumption. Consequently, we propose that

**Hypothesis 2:** Environmental concern will positively influence purchase intentions.

**Moderating Role of Environmental Marketing Claims**

Environmental marketing claims often use vague or empty terms, such as eco- or environmentally friendly, ozone-friendly, recycled, recyclable, or reusable, without providing specific information about their meanings; consequently, consumers find it difficult to evaluate the veracity of such claims (Morris, Hastak, & Mazis, 1995; Polonsky, Calson, Grove, & Kangun, 1997).

Carson, Grove, and Kangun (1993) suggest that environmental claims can be divided into four types: product-oriented claims, process-oriented claims, image-oriented claims, and claims based on environmental facts. Product- or process-oriented claims deal with environmentally friendly product attributes or production techniques (i.e., 100% organic cotton or waterless washing jeans). These claims are intrinsic claims because they directly involve product attributes and therefore indicate substantive behavior change on the part of firms (Polonsky et al., 1997). An increasing number of apparel companies, such as American Apparel, Levi Strauss, and Marks & Spencer, have implemented substantive changes using organic materials, modifying product design, and developing methods of manufacturing “eco-fashion” to protect the environment (Yan et al., 2012).

On the other hand, image-oriented claims focus on a firm’s environmental activities (e.g., donations to environmental charities) in order to garner broad-based public support, while claims of environmental facts simply consist of a statement regarding the environment (e.g., natural resources are dwindling). Such environmental marketing claims, unlike product- or process-oriented claims, do not concern the physical or intrinsic attributes of a product, but are only peripherally related to it. Rosen and Wood (2010) indicate that donating a portion of sales profits to environmental charities is considered a less effective way of raising levels of eco-friendly consumption than making products with organic ingredients. That is to say, most consumers engage in eco-friendly behavior when they receive intrinsic rewards doing so (Carson, Grove, & Kangun, 1993).

However, some studies suggest that an environmental claim may elicit diverse responses from different people. For example, Kim and Damhorst (1999) demonstrate that advertisements containing a promise of donations to a chosen cause generate more positive responses than product-related environmental claims. Bennett and Chakravarti (2010) also show that consumers are willing to purchase donation-associated products because donations are observable and send a social signal
regarding the buyer’s identity and ideals. According to Schwartz’s (1977) norm activation theory, social norms convey social signals that encourage consumers to embrace environmental practices and work because the quality of greenness is collective rather than personal (Niinimaki, 2010). In other words, social norms effectively influence people’s product choices because they want to cultivate a green image by partaking in environmental behavior.

Aside from transmitting social signals to others, environmentally friendly products serve to form consumers’ own ideas of their environmental values and attitudes (Bennett & Chakravarti, 2010). In other words, consumers are themselves receptive to the social signals transmitted by their purchasing choices (Quattrone & Tversky, 1984), and construct their own self-image through self-reflection (Niinimaki, 2010). Kim, Forney, and Arnold (1997) show that consumers who exhibit high levels of environmental concern respond more positively to apparel advertisements with environmentally friendly claims than to those that make no such claims. Such consumers are environmentally conscious consumers because their environmentally conscious personality originates from an intrinsic motivation to always try to purchase environmentally friendly products (D’Souza, 2004), and because they respond more positively to product-related claims than to cause-related ones (Phau & Ong, 2007). In this respect, they differ from consumers who are extrinsically motivated to conform to a social norm or fulfill a duty by engaging in environmental behavior (Gebauer, Riketta, Broemer, & Maio, 2008). Accordingly, we hypothesize the following:

**Hypothesis 3a:** The type of environmental marketing claims will moderate the positive influence of descriptive norms on purchase intentions.
Hypothesis 3b: The type of environmental marketing claims will moderate the positive influence of injunctive norms on purchase intentions.

Hypothesis 3c: The type of environmental marketing claims will moderate the positive influence of environmental concern on purchase intentions.

Method

Measures

We mainly constructed our survey instrument based on established measurement constructs from prior research but adapted aspects of these to the context of our proposed model. The variables of the study were measured with 7-point Likert-type items adapted to this context from a published scale (see Table 1 for the specific items). Environmental concern was measured with 3 items adapted from Minton and Rose (1997). Injunctive norms were measured by 3 items adapted from Fielding,
McDonald, and Louis (2008) and Pelletier, Tuson, Green-Demers, and Noels (1998). Relevant measures for descriptive norms in the e-shopping context were lacking; therefore, we conducted a pretest with a sample of 25 undergraduates to develop 3 items to fit the current context. Finally, purchase intentions were measured using 4 items adapted from Park, MacInnis, Priester, Eisingerich, and Lacobucci (2010). The responses for all measures were given on a scale that ranged from 1 (not at all) to 7 (very much).

Stimulus. Most companies today use the Internet in their marketing communications, as a website is considered to be not only a sales channel but also an important marketing tool with product information and advertising messages (Balabanis & Reynolds, 2001). As such, we developed two fictional product description webpages to present differing types of environmental marketing claims for more effective and easier communication (see Appendix A). The two webpages displayed the same pair of jeans and each consisted of a picture of the product, a list of product attributes (e.g., name, price, style description, shipping information, etc.), and choice menus for style and color. All content was designed with reference to commercial jeans wear retail websites, and both webpages were identical to each other in all but the type of stimulus applied. One conveyed an extrinsic environmental claim that endeavored to appeal to the consumer via donation, which read: “With every pair you purchase, 10% of each $ spent goes to help save the environment.” The other made an intrinsic marketing claim that emphasized the environmental qualities of the product itself: “Choose our jeans made from 100% organic cotton, grown without synthetic chemical fertilizers or pesticides, and pure down to the natural plant-based indigo dye.”

Furthermore, descriptive norms were provided on the webpages via the insertion of rich social cues in customer reviews. In keeping with the social cues literature (Derks, Bos, & Grumbkow, 2007; Kahai, 2009; Kato, Kato, & Akahori, 2006; Walther & Parks, 2002), the customer reviews included visual cues (i.e., the pictures of the customers who wrote the reviews), emotional cues (i.e., multiple exclamation marks in the testimonials), and social identity cues (i.e., the region, age, and gender of the customers who wrote the reviews). Social cue conditions were determined in a pretest performed by two experienced researchers prior to the main experiment. The subjects consisted of 25 undergraduates (15 females and 10 males) aged 18 to 24, who participated in a series of personal interviews and group discussions. Printed drafts of the webpages featuring the various aforementioned social cues were handed out to the subjects, who checked that they were realistic and appropriate to the current context. All subjects agreed that the webpages looked realistic and resembled those found on existing apparel retail websites; therefore, the stimuli were adjudged appropriate.

Sampling and Data Collection

Since many consumers use multiple channels when searching information and purchasing products, we chose online shoppers as our sampling frame. Then, a series of in-depth interviews were conducted with five fashion brand managers in online shops in order to identify active online shoppers for this study. Online shopping has become increasingly common across generations, and thus, the mean age of online shoppers in the United States has increased (Pew Internet and American Life Project, 2010). However, we formulated a survey that targeted online shoppers between the age of 19 and 39 who had purchased apparels online within the past 6 months on the basis of the in-depth interviews and of product category considerations. The survey was then administered to a U.S. web panel through a company specialized in market research. Online consumer panels were randomly recruited via an e-mail introducing the survey and those who were interested in taking it could do so by accessing it through the uniform resource locator provided. In total, 332 questionnaires were collected from April to May in 2011.
A preliminary analysis of respondents’ demographic profile revealed that 73.5% of the participants were women and 26.5% were men. Of all respondents, 27.4% were between the ages of 19 and 24, 28.6% were between 25 and 29, 27.4% were between 30 and 34, and 16.6% were 35 or older. Those who earned less than $20,000 per year accounted for 14.4% of the sample, while those who earned between $20,000 and $39,999, between $40,000 and $59,999, between $60,000 and $79,999, and $80,000 per year or more constituted 34.7%, 12.3%, 19.5%, and 18.9% of the sample, respectively. A majority of the respondents (75.2%) possessed at least college-level education, and 45.8% reported having more than 5 years’ online shopping experience.

Results

Data Analysis

The measurement scales used in this study were subjected to commonly used reliability, validity, and unidimensionality tests. First, the reliability of the constructs was evaluated using Cronbach’s α coefficients (see Table 1). The reliability coefficients for the variables ranged from .82 to .95, which is considered satisfactory (Nunnally, 1978). To verify the convergent and discriminant validity of the measures, confirmatory factor analysis was performed using Lisrel 8.8 software. All the factor loadings of the indicators were significant exceeding .6 to the latent variable and therefore indicated that the measures possess convergent validity. Further, the composite reliability and average variance extracted (AVE) of the constructs meet the suggested levels of .7 and .5 (Fornell & Larker, 1981). Table 1 summarizes the results for the aforementioned measures. Discriminant validity is confirmed by the fact that the AVE for one construct was greater than the squared correlation between that construct and any other (Anderson & Gerbing, 1988). Table 2 shows descriptive statistics, correlations, and discriminant validity analysis for all factors.

Each question is obviously different, as are the constructs and all measurement models. Therefore, the use of similar scales with the same number of response options can lead to common method bias and create a spurious relationship among variables. This can be exacerbated if higher order constructs for the main measurement models are represented by components measured in a similar format. To check for common method bias, we performed an ex post one-factor test, which demonstrated that there was no common factor loading on all measures. This factor analysis resembles Hermon’s one-factor test (Podsakoff & Organ, 1986) and shows that common method bias is nonproblematic within this data set.

Hypothesis Testing

The research hypotheses were tested with a regression model whose parameters were estimated using the ordinary least squares method. All scales with multiple items were averaged to form
composite scales, which were mean centered in order to mitigate problems of multicollinearity (Edwards & Lambert, 2007). The moderating effect of claim type on the influence that descriptive norms, injunctive norms, and environmental concern exert over consumer purchase intentions was tested via the inclusion of interaction terms between the claim type and independent constructs, and the intrinsic claim was assigned the value of zero, while the extrinsic claim was assigned the value of one (Aiken & West, 1991). To control for the effects of sociodemographic variables on purchase intentions, we also included covariates in the regression model, such as gender, age, education, and household income (Kamakura, Ramaswami, & Srivastava, 1991; Verhoef, Franses, & Hoekstra, 2002).

The results of the regression analysis are reported in Table 3. In addition, we computed variance inflation factor (VIF) scores for our model to estimate the degree of multicollinearity in the analysis. Since the computed VIF scores have values between 1 and 3, we conclude that multicollinearity has not affected our estimates, and we can safely test our hypotheses (Hair, Anderson, Tatham, & Black, 1998).

Table 3 summarizes the results of the hierarchical regression analyses for the main variables under investigation, which show that descriptive norms ($b = .31, p < .01$), injunctive norms ($b = .57, p < .01$), and environmental concern ($b = .20, p < .01$) make important contributions to purchase intentions. Hence, we find support for Hypotheses 1a, 1b, and 2.

The results of the research reveal significant interaction effects between group and independent constructs. Two of the interaction effects explaining purchase intentions were found to be

### Table 3. Hierarchical Regression Model

<table>
<thead>
<tr>
<th>Step</th>
<th>Variables</th>
<th>$b$ (SE)</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>$F$ change</th>
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<tr>
<td>1</td>
<td>Gender</td>
<td>.47 (.22)</td>
<td>.12</td>
<td>.04</td>
<td>.04</td>
<td>2.97*</td>
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<td></td>
<td>Education year</td>
<td>-.07 (.10)</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Household income</td>
<td>-.07 (.04)</td>
<td>-.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Online shopping experience</td>
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<td>-.09</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>-.01 (.02)</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
<td>.10 (.13)</td>
<td>.03</td>
<td>.65</td>
<td>.61</td>
<td>138.72**</td>
</tr>
<tr>
<td></td>
<td>Education year</td>
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<td>-.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Household income</td>
<td>-.03 (.02)</td>
<td>-.04</td>
<td></td>
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<tr>
<td></td>
<td>Online shopping experience</td>
<td>-.03 (.04)</td>
<td>-.03</td>
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<tr>
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<td>Age</td>
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<td>.01</td>
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<td>Injunctive norm</td>
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<td>Environmental concern</td>
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<td>.08*</td>
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<td></td>
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<tr>
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<td>Claim type</td>
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<td>3</td>
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<td>.66</td>
<td>.01</td>
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<td></td>
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<td>Age</td>
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<td>.01</td>
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<td>.16**</td>
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<tr>
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<td>Claim type</td>
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<td>.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Descriptive norm $\times$ Claim type</td>
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<td>-.03</td>
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<tr>
<td></td>
<td>Injunctive norm $\times$ Claim type</td>
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<td>.13**</td>
<td></td>
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<tr>
<td></td>
<td>Environmental concern $\times$ Claim type</td>
<td>-.25 (.11)</td>
<td>-.17**</td>
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</tbody>
</table>

Notes. We used two dummy variables: gender (0 = female, 1 = male) and claim type (0 = intrinsic, 1 = extrinsic).

*p < .05. **p < .01.
statistically significant; however, the interaction effect between claim type and descriptive norm was found statistically insignificant. As seen from Table 3 (Step 3), the moderating effect of environmental marketing claims was partially detected. First, the interaction terms between the injunctive norm and claim type were statistically significant ($b = .21, p < .05$), thus supporting Hypothesis 3b. The interaction effect between the injunctive norm and extrinsic claim was more statistically significant than the one between the injunctive norm and intrinsic claim. In other words, claim type has a considerable effect on the impact of the injunctive norm on purchase intentions. Second, the interaction terms between environmental concern and claim type were statistically significant ($b = -.25, p < .05$), thus supporting Hypothesis 3c. The interaction effect between the injunctive norm and extrinsic claim was more statistically significant than the one between the injunctive norm and intrinsic claim. However, the interaction terms between the descriptive norm and claim type turned out to be statistically insignificant ($b = -.06, p > .05$). Hence, our results do not support Hypothesis 3a.

**Discussion and Implications**

Much research has been performed on the eco-friendly consumer behaviors behind the rise of practices such as environmentally friendly packaging (Thøgersen, 1999) and eco-labeled products (D’Souza, 2004). However, the scope of products examined by such work is broad, and studies on apparel products have so far been limited. Against this background, this study explored and compared the effects of social norms, individual environmental concern, and type of environmental marketing claim on the consumer’s intent to purchase an environmentally friendly apparel product.

First, the findings provide strong empirical support for the importance of social norms in a consumption context. Prior studies have mostly modified the TRA or the TPB to investigate the impact of injunctive or subjective norms on behaviors concerning environmental concerns (Biel & Thøgersen, 2007), but in the context of apparel shopping, limited research has been conducted on the effectiveness of descriptive norms, recalling the distinction between descriptive and injunctive norms. Existing work shows that both the descriptive norm and the injunctive norm have a greater effect on purchase intentions than environmental concern does, despite the fact that the latter is a key determinant factor of eco-friendly behaviors (Minton & Rose, 1997). Therefore, the current findings confirm the established idea that observing the behavior of others is of great importance in decision making in eco-friendly consumption, since behaviors often take place in a social context (Biel & Thøgersen, 2007; Cialdini et al., 1991; Rivis & Sheeran, 2003).

Second, the findings showed the type of environmental marketing claim made by the product moderates the influence of injunctive norms and environmental concern on consumer purchase intentions. Specifically, injunctive norms have a more powerful effect on purchase intentions when partnered with an extrinsic claim than when accompanied by an intrinsic claim, whereas environmental concern has a greater effect on purchase intentions when combined with an intrinsic claim than when attended by an extrinsic claim. Given that eco-friendly behaviors seem to be either stimulated more by extrinsically driven motivation (i.e., social pressure) or by intrinsically driven motivation (i.e., environmental values), this result constitutes a deeper understanding of consumers’ different rationales for purchasing environmentally friendly products. Moreover, the moderating role of the injunctive norm and environmental concern may explain why prior studies (e.g., Kim & Damhorst, 1999; Phau & Ong, 2007) made contradictory conclusions regarding the effect of environmental claims in clothing promotion. In essence, extrinsic marketing claims involving donations trigger the urge to conform to a social norm more effectively than intrinsic marketing claims do, while intrinsic marketing claims...
involving the consumption of inherently environmental products activate personal environmental concern more effectively than extrinsic marketing claims do.

Third, the results showed that the impact of descriptive norms on purchase intentions does not differ depending on claim type. Unlike injunctive norms, descriptive norms rely on situational factors rather than personal ones. That is to say, people are receptive to the behavior of others, regardless of claim type; therefore, the descriptive norms elicited by a shopping situation affect consumers’ purchase intentions no matter which type of environmental claim is presented. Consumers seem to search for cues with which to interpret any situation and infer similar social norms by observing the behavior of others (Biel & Thøgersen, 2007).

On the managerial front, the findings of this study contribute to a comprehensive perspective on environmental marketing strategies for the apparel company. Since understanding the attitudes of green consumers is the first step in marketing to them, many companies have striven to identify environmentally active consumer groups (D’Souza, 2004). However, this study suggests that social norms have a greater influence on eco-friendly consumer behavior than environmental concern does. Therefore, marketers may need to segment consumers not only by environmental concern or knowledge but also by susceptibility to social influence, which may be studied through social comparison information (e.g., Bearden & Rose, 1990).

Further, marketers should consider the type of environmental marketing messages they wish to deliver, as well as their specific target consumers. When companies target consumers who are inherently very concerned about and committed to the environment, they may need to promote their brand with an intrinsic marketing claim that focuses on the physical attributes of the product. On the other hand, a market that is susceptible to social influence, such as a young demographic, requires a marketing strategy that involves the company’s participation in an environmental campaign or activity.

The findings also provide some policy ideas for encouraging eco-friendly consumption. The main suggestion derived from the results of this research is that from the consumers’ perspective, appealing to social norms could be a better way to implement environmental policies than providing economic incentives such as tax discounts. Since injunctive norms, in particular, are formed through public service messages and long-term programs, policy makers need to offer financial and legal resources in terms of green program development and monitoring. In addition, policy makers should provide sufficient motivation through environmental information disclosure so that companies are encouraged to engage in eco-friendly apparel production. Furthermore, objective information provided by the policy makers would help environmentally conscious consumers make their purchasing decision because they are more likely to estimate the intrinsic environmental quality of the product than the extrinsic green marketing.

The findings of this research need to be viewed in light of the following potential limitations. First, this study did not examine the impact of social norms, environmental concern, and claim type on willingness to pay premium prices, even though environmentally friendly textile and apparel goods are generally associated with higher prices. Second, the design and style of clothing are critical attributes when consumers choose apparel products; therefore, future studies should also examine how the perceived aesthetic qualities of environmentally friendly products affect consumer purchase intentions. Third, the effect of social norms on consumers’ purchase intentions may depend on brand reputation because brand name is closely related to social or self-signaling. Therefore, we encourage future researchers to explore the effect of brand name as a potential moderator of purchase intentions and investigate the interaction between environmental marketing claims and brand name. Finally, this study mainly focused on female and younger online shoppers. Thus, future research could expand on the current findings and provide greater confidence in the generalizability of our results by including more male samples and different age groups.
Appendix A: Stimulus

<table>
<thead>
<tr>
<th>Marketing Claims</th>
<th>Webpages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Extrinsic Claim</strong></td>
<td>Here’s a pair of men’s jeans from the Blumine’s OZONE TECHNOLOGY line. Please carefully read all the product attributes &amp; customer reviews appearing on the page, and pick answers for the following questions that best represent your opinions:</td>
</tr>
<tr>
<td>Blumine jeans is a newly-launched jeans wear brand that holds the “One-for-Ten” line donating 10% of what customers spend on any item of the line. The following is its catchphrase &amp; logo:</td>
<td>Here’s a pair of men’s jeans from the Blumine’s ONE-FOR-TEN line. Please carefully read all the product attributes &amp; customer reviews appearing on the page, and pick answers for the following questions that best represent your opinions:</td>
</tr>
<tr>
<td>10% Donated to Environment  “With every pair you purchase, Blumine jeans will donate 10% of every $ you spend on the jeans, to help save the environment.”</td>
<td></td>
</tr>
<tr>
<td><strong>Intrinsic Claim</strong></td>
<td></td>
</tr>
<tr>
<td>Blumine jeans is a newly-launched jeans wear brand that holds the “Ozone Technology” line with items only made from 100% organic cotton and plant-based indigo dye. The following is its catchphrase &amp; logo:</td>
<td></td>
</tr>
<tr>
<td>“Eco-Friendly Manufactured” Jean  *Choose Blumine jeans made from 100% organic cotton, grown without synthetic chemical fertilizers or pesticides. Pure down to the natural plant-based indigo dye.”</td>
<td></td>
</tr>
</tbody>
</table>

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