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Effects of Green Self-Identity and Cognitive and Affective Involvement on Patronage Intention in Eco-Friendly Apparel Consumption: A Gender Comparison

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Abstract: While eco-friendly apparel has been made available in markets, turning this environmental innovation into companies' competitive advantage has been challenging. The purpose of the study is to better understand consumers' eco-friendly apparel consumption and to examine whether gender plays a role in consumer attitudes toward the product. Both male and female consumers' green self-identity, cognitive and affective involvement, as well as their patronage intention, were examined and compared. The results showed that men and women were motivated by different factors. For men, cognitive involvement was a prominent determinant of their patronage intention and mediated the relationship between their green self-identity and intention. For women, green self-identity was the only factor that motivated their patronage intention for eco-friendly apparel. The findings provide empirical evidence and directions that could help marketers to identify their consumer characteristics and market segments and to develop more efficient eco-friendly apparel market communication strategies in the U.S.

Keywords: sustainable consumption; eco-apparel; green identity; involvement; gender effect

1. Introduction

A paradigm shift has resulted in sustainability becoming an important value in current society. Companies have been modifying their business model to meet this new value and to satisfy the demands from their stakeholders. In fact, being "green" delivers many benefits for a business. Research studies have shown that environmental innovations and green marketing strategies can boost the economic performance of a company [1,2]. Environmental innovations, for instance, such as finding a more efficient application of raw materials, developing a more effective product design process, and converting waste into saleable products, can lower the cost and provide additional revenues. Green marketing strategies, such as launching a green positioned brand and using eco-labels or environmental certificates, can improve a company's image, reputation, and relationship with consumers. In addition to benefitting economically by being green, companies, more importantly, can minimize the environmental destruction that is caused by their industrial and commercial activities [3].

The apparel industry relies heavily on industries such as agriculture, chemical, engineering, design and marketing [4]. Therefore, there are many opportunities for companies across these different sectors to engage collectively in green business activities. A sustainable apparel business can take actions such as lowering pollution, consuming fewer resources, maintaining a safe workplace, and promoting non-toxic and durable quality products for consumer well-being [5,6]. Consumer awareness and demand have stimulated the eco-friendly apparel market growth. Such clothes are made from

recycled materials or otherwise produced by methods that are not harmful to the environment, such as using cotton grown without the use of pesticides [7].

However, despite the efforts companies have taken to be green in response to the need and growth of environmentally conscious consumers, falling sales of eco-products have been observed in the U.S. market [8,9]. Some eco-apparel lines have even failed [10,11]. Several barriers to eco-friendly apparel acquisition have been identified by consumers, such as “higher price range,” “lack of knowledge,” “uncertainty of quality,” “trust of the company”, and “availability of products” [12]. These barriers exist across product categories [9], and this may reflect the fact that many companies have failed to develop efficient green marketing strategies and to transform their environmental innovations into a competitive advantage. Due to the unique attributes of eco-products, scholars in sustainability marketing have underscored the need to re-examine consumer behavior toward specific eco-products in order to develop an effective marketing mix [13].

Several studies have been conducted to examine consumers’ value and motivation behind sustainable apparel consumption [14–16]. Building upon the insightful findings provided by those studies, the researchers of this study seek to move forward to examine consumer attitude of the subgroups to answer the question of whether a difference may exist between male and female consumers in sustainable apparel consumption. Research studies have found that men and women exhibit diverse levels of environmental concern and attitude. In general, women showed a more positive attitude or higher environmental concerns compared to men [17–20]. However, an eco-focused outdoor brand indicated that its customers consist of roughly 50% men and 50% women [21]. Thus, in order to examine the discrepancy and help marketers understand what motivates consumers’ patronage behavior so that they can communicate with their target segments more efficiently, the purpose of this study is to investigate gender-based distinctions in attitudes in the specific context of sustainable apparel consumption. A model with three indicators, self-identity and two motivational variables (cognitive and affective involvement), was developed in this study to examine the U.S. consumers’ patronage intention. The rationales of the relations among the variables are presented in the following sections.

2. Materials and Methods

2.1. Theoretical Framework of Involvement

The theoretical framework applied in this study is the conceptual model that illustrates the mediating role of involvement and its relationship with the antecedents and consequences proposed by Zaichkowsky [22]. The construct of involvement has long been recognized as an important variable in understanding consumer behavior [23–27]. Zaichkowsky [28] defined involvement as “a person’s perceived relevance of an object based on inherent needs, values, and interests” (p. 342). The level of involvement with a product impacts how long a consumer would spend on searching for information about that product, how many alternatives a consumer might compare before the purchase, and/or what information a customer would focus on in an advertisement.

The potential antecedents of involvement are categorized into three groups: personal (e.g., needs, values, and interests); stimulated (e.g., alternatives, advertisements, and content of communication), and; situational (e.g., use occasion). These antecedents influence the consumer’s level of involvement with the products, brands, or advertisements. The level of involvement subsequently influences consumer attitudes and behaviors (consequences), such as the amount of information search, effectiveness of ads to induce purchase, and type of decision rules to be employed in choice (see the full discussion in [22]).

Involvement is a multifaceted construct. To quantify a person’s level of involvement, Zaichkowsky [29] developed a scale (Revised Personal Involvement Inventory) consisting of 10 items that exhibit two subscales, cognitive and affective involvement. The cognitive involvement includes the items “important”, “relevant”, “valuable”, “means a lot to me”, and “needed”, It captures the

aspect of one person's rational thinking, utilitarian motive, thought-related reaction, and functional performance. The affective involvement, on the other hand, includes "interesting", "appealing", "fascinating", "exciting", and "involving". It refers to the emotional reaction, hedonistic motive, and personal relevance based on feelings and moods [29–32].

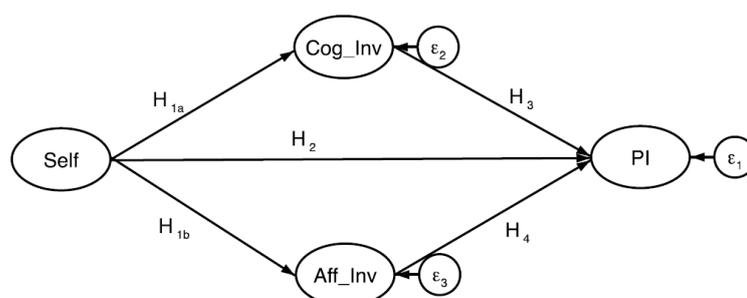
Research studies have found impacts of cognitive and affective involvement in a number of consumer behavior studies, but the results have been shown inconsistent. Some research studies found that both involvements were influential on such consumer behavior as online purchase intention of books and gift cards [33], online purchase intention via social media [34], and brand loyalty towards online communities [35]. However, some studies suggested unequal impacts from cognitive and affective involvement. For example, when consumers were cognitively involved, the background music of TV commercials creates distractions toward a brand but not when consumers were affectively involved [31]. Bosnjak et al. [36] found that affective involvement was a significant predictor of online shopping intention, but cognitive involvement was not.

As Zaichkowsky [37] indicated, involvement is not an innate personal trait but a motivational concept that could be stimulated by different factors. Thus, the researchers of this study believe that involvement would be a significant mediator that can motivate consumers' patronage of eco-friendly apparel. However, it is the focus of this study to investigate whether cognitive and affective involvement are equally influential on consumers' attitude toward eco-friendly apparel and whether there is a gender difference.

2.2. Hypotheses Development

2.2.1. Effect of Green Self-Identity

As mentioned previously, involvement can be influenced by personal, stimulated, and situational factors [22]. To reflect the specific context, unique attributes of clothing have been taken into consideration in the model development (Figure 1). Clothing has been recognized as a product with strong symbolic meaning in expressing one's identity [38–40]. Thus, self-identity was identified as the key antecedent in this study.



H₅: *Affective* involvement will mediate the relationship between women's green self-identity to patronage intention.

H₆: *Cognitive* involvement will mediate the relationship between men's green self-identity to patronage intention.

Self = Self-Identity

Cog_Inv = Cognitive Involvement

Aff_Inv = Affective Involvement

PI = Patronage Intention

e1, e2, e3 = errors

Figure 1. The proposed model with hypotheses.

Self-identity is defined as "relatively enduring characteristics that people ascribe to themselves" [41] (p. 1396). Studies have examined the effect of self-identity on one's involvement with clothing and found a positive relationship between the symbolic value and involvement with clothes [42,43]. It is

suggested that involvement with clothing stems from the enjoyment of shopping and the symbolic nature of clothing which serves as a means of self-expression and a way of exhibiting a person's self-identity [42].

Based on these notions, the authors of this study proposed that a consumer with a stronger environmentally conscious identity would have higher involvement with eco-friendly apparel. The authors also proposed that this positive relationship can be applied to both aspects of involvement, cognitive and affective, as well as both genders [29]. Thus, the following hypotheses were developed:

Hypothesis 1a (H_{1a}). *For both genders, a consumer with stronger green self-identity will possess higher cognitive involvement with eco-friendly apparel.*

Hypothesis 1b (H_{1b}). *For both genders, a consumer with stronger green self-identity will possess higher affective involvement with eco-friendly apparel.*

Furthermore, it is suggested that green self-identity is a significant indicator of eco-friendly apparel consumption. The relationship between self-identity and consumption has been a focus of much research in consumer behavior [44–46]. Grubb and Grathwohl [44] proposed that people tend to enhance self-identity through consuming products that they believe symbolize who they are; as such, people use products they consume to reflect their sense of self and to retain self-consistency. In behavioral studies, self-identity has been found positively related to pro-environmental/ethical behaviors [47–49]. Therefore, this study proposed that an individual with an identity of being environmentally conscious and green would exhibit a higher intention to patronize the store that sells eco-friendly apparel (more details in the next section), and the following hypothesis was developed.

Hypothesis 2 (H_2). *For both genders, a consumer with stronger green self-identity will possess higher patronage intention in eco-friendly apparel consumption.*

2.2.2. Cognitive and Affective Involvement and Patronage Intention

Based on Zaichkowsky [22], a consumer's level of involvement will influence the subsequent behaviors, such as the amount of time spending on product information search and purchase intention. This study explores consumers' involvement and the dimensions of involvement affecting consumers' patronage intention for eco-friendly apparel. The consequent behavior focused in this study is consumers' patronage intention, which is operationalized as the "repurchase loyalty" and is the "basic level of interest in a store that is limited to an intent to re-buy from the particular store at a future date" [50] (p. 407). This concept consists of two aspects: "relative attitude" and "repeat patronage" [50,51]. It is suggested that higher involvement with a product would lead to greater perception of product attribute distinctions, which, in turn, results in greater commitment to brand choice [28], as well as higher repurchase loyalty [52,53]. Thus, the following two hypotheses were developed. (The sub-hypotheses regarding gender difference are presented in the next section.)

Hypothesis 3 (H_3). *A consumer with stronger cognitive involvement will possess higher patronage intention in eco-friendly apparel consumption.*

Hypothesis 4 (H_4). *A consumer with stronger affective involvement will possess higher patronage intention in eco-friendly apparel consumption.*

2.2.3. Gender Difference

Gender information is often used to provide an essential understanding of consumer behavior. Attitudinal or behavioral differences found between men and women can help marketers develop more efficient marketing strategies. For instance, the information processing pattern of female consumers tends to be detail-oriented and specific compared to their male counterparts [54]. Female consumers

usually focus on particular message claims. On the other hand, male consumers are more likely to take a heuristic processing strategy that focuses on overall message themes. By understanding the difference between men and women in information processing patterns, marketers can create more effective advertisement messages.

It has been suggested that women conduct more sustainable consumption compared to men because of their stronger environmental concern and attitude [55,56]. Several theories have been used to explain the difference. Gender socialization theory suggests that “individuals are shaped by gender expectation within the context of cultural norms” [57] (p. 445). As a result, men and women behave in certain ways to meet these social expectations. Studies explain women’s pro-environmental attitude and behavior as due to the fact that women are considered to be more expressive, compassionate, nurturing, altruistic, as well as caregiving [57,58]. The other theoretical stream, sociobiological theories, accounts for women’s pro-environmental attitude from the prism of the inherent biological role [47]. As also suggested, “after reproduction, women feel more connected to nature, which in turn increase their environmental concern” [59] (p. 311). This role positions a woman to the context of being more caring and concerned about the issues related to the environment because of their natural connection with the next generation.

While these theories suggest higher eco-attitude levels for women compared to men, a few research studies have found the opposite results and showed that men have a higher positive eco-attitude and concern compared to women [60,61]. Men can also be highly involved with pro-environmental behavior and have a high level of environmental attitude and concern. It has been suggested that men and women perform pro-environmental behaviors under different motivations or situations [62]. According to studies, women are more engaged in private pro-environmental behaviors which are household-oriented such as recycling, and men are more active in public pro-environmental behaviors which are community/society-oriented such as protests regarding environmental issues [62–65]. Tindall et al. [66] accounted for the distinction as due to the gendered division of labor, as suggested previously.

Thus, rather than dichotomizing men and women into high and low involvement groups, it is important to understand factors contributing to the difference between men and women when both are highly involved with the products [31]. In other words, are men and women motivated by the same or different factors, such as the different dimensions of involvement (cognitive vs. affective)? As Dittmar [67] indicated, women and men value products for different reasons. For women, they focus on the emotional and relationship-oriented reasons, whereas men put emphasis on functional and activity-related aims. Therefore, the authors of this study proposed that men and women would be motivated by different factors in sustainable apparel consumption. Men might be highly involved with eco-friendly apparel because of the product’s functional attributes, and women might be also highly involved because they perceive the affective relevance.

Moreover, to further understand how cognitive and affective involvement and genders interact in this context, it is proposed that male consumers would be motivated by cognitive involvement that reflects the functional and utilitarian motive that connects to responsibility to the outside world. On the other hand, female consumers would be motivated by affective involvement that reflects the emotional and hedonistic motives. Thus, sub-hypotheses were developed regarding gender differences (H_5 and H_6). Figure 1 illustrates the proposed conceptual model that links one’s green self-identity to patronage intention with their mediating factors (cognitive and affective involvement). The gender-specific hypotheses (H_5 and H_6) were listed below the model in Figure 1. H_5 will be supported when both H_{1a} and H_3 are supported in the women’s model. H_6 will be supported when both H_{1b} and H_4 are supported in the men’s model.

Hypothesis 5 (H_5). *Affective involvement will mediate the relationship between women’s green self-identity to patronage intention.*

Hypothesis 6 (H₆). *Cognitive involvement will mediate the relationship between men's green self-identity to patronage intention.*

2.3. Sample

An online survey that included questions regarding (1) eco-friendly apparel consumption; (2) green self-identity; (3) involvement with eco-friendly apparel; (4) patronage intention, and; (5) demographic characteristics was developed. Responses were collected by a commercial research firm from a consumer panel they maintain. The commercial research firm offered the incentive in the form of points redeemable for rewards such as gift cards. All participants received an incentive for participating in the study. Consumers from across the U.S. were selected using a quota sample based on the age and gender of U.S. consumers in 2012 (Table 1). A total of 373 usable responses from U.S. consumers were received. The sample consists of approximately 49% male participants. The average age of the sample was 46 years of age, and the ages ranged from 18 to 83 with a median of 49. Fifty-three percent of the sample reported they were currently married. In addition, 32% of the respondents indicated that they had bought apparel products (e.g., t-shirts, jeans, shorts, blouses, jackets, etc.) that contain organic cotton; 35% of those who purchased apparel had bought products that contain recycled fibers, such as recycled polyester or recycled wool.

Table 1. Characteristics of Respondents.

Characteristics		Sample (%)	2012 U.S. Census (%)
Gender	Male	48.8	48.3
	Female	51.2	51.7
Age	18–24	12.6	12.8
	25–34	13.7	17.6
	35–44	17.4	17.0
	45–54	20.7	18.7
	55–64	17.4	16.2
	>65	18.2	17.7
Income	<\$15,000	11.5	
	\$15,000–\$24,999	12.6	
	\$25,000–\$34,999	15.3	
	\$35,000–\$49,999	16.1	
	\$50,000–\$74,999	23.3	
	\$75,000–\$99,999	11.5	
	>\$100,000	9.7	
Ethnic Group	White	83.4	
	Asian	4.0	
	Black/African American	5.4	
	Hispanic/Latino	4.0	
	Native/Alaskan American	0.8	
	Multicultural	2.4	
Education	Less than high school	24.9	13.2
	High school/GED	28.2	30.0
	Some college/associate's degree/college graduate	37.0	47.0
	Postgraduate degree	9.9	9.8

Table 1. Cont.

Characteristics		Sample (%)	2012 U.S. Census (%)
Marital status	Single	25.7	
	Married	53.1	
	Divorced	14.8	
	Widowed	2.7	
	Other ^a	3.7	

Notes: ^a No further indication. N = 373. GED = general equivalency diploma. The total U.S. census population (18 and older) used in calculations was adopted from the U.S. Census source, N = 234,720,000. Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2012. Internet release date: December 2013.

2.4. Measurements: Green Self-Identity, Involvement, and Patronage Intention

Three items that measure a consumer's environmental or green aspect of their self-identity were adopted from [48]. The original measurement was a five-item scale designed to measure a consumer's self-identity toward social, environmental, and organic aspects of a sustainable consumption. Of the five items, two that measure social issues related to apparel production did not match the focus of this study, resulting in their exclusion from the analysis. Examples of the adopted items include, "I think of myself as someone who is concerned about environmental issues," and "I think of myself as an organic consumer." A seven-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree) was employed to measure this construct. The reliability of the scale (Cronbach's α) in this study was 0.88.

The Revised Personal Involvement Inventory (RPII) scale developed by Zaichkowsky [29] was used in this study. The definition of eco-friendly apparel was provided. In this study, it refers to clothing made from recycled materials or otherwise produced by methods that are not harmful to the environment. For example, clothing made using raw materials such as cotton which was grown without the use of pesticides. Participants were asked to respond to select between the ten semantic differential pairs of the RPII on a 7-point scale based on the following prompt: "To me an eco-friendly apparel product is . . ." The five pairs for cognitive involvement are "important vs. unimportant," "relevant vs. irrelevant," "worthless vs. valuable," "means nothing vs. means a lot to me," and "not needed vs. needed." The five pairs for affective involvement are "boring vs. interesting," "appealing vs. unappealing," "fascinating vs. mundane," "exciting vs. unexciting," and "involving vs. uninvolved." Factor analysis was performed to confirm the subscales (cognitive vs. affective involvement) before testing the proposed model. The reliability of the ten items (Cronbach's α) in this study was 0.90.

Three items modified from Chaudhuri and Ligas [52] were applied in this study to measure consumers' intentions of word-of-mouth, repeat patronage, and store commitment. Examples of the items include "if I find eco-friendly apparel in a store, I will use this store the next time I want to purchase eco-friendly clothing" and "if I find eco-friendly apparel in a store, I will recommend the store to my friends." Respondents answered these questions using a seven-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree). The reliability of the scale (Cronbach's α) was 0.92.

3. Results

3.1. Factor Analysis

Principle component factor analysis was employed to examine the dimensionality of the RPII scale to confirm the items under the subgroups of cognitive and affective involvement. As expected, two factors emerged. A promax (oblique) rotation was used because these two subscales of involvement are expected to be correlated with each other considering the high reliability among the ten items [29]. Thus, an oblique rotation is more appropriate to analyze the scale [49].

As expected, the result showed two factors, but the items loaded on the two factors in a different pattern from the groupings reported by Zaichkowsky [29]. Previous research studies have acknowledged this issue with the RPII scale [23,24,26,51]. The four problematic items that cross loaded

or fell into the wrong dimensions were excluded. As a result, three items were retained and used to measure cognitive involvement, “means a lot to me” (Inv5), “valuable” (Inv8), and “needed” (Inv10). Three items were used to measure affective involvement, “exciting” (Inv4), “fascinating” (Inv7), and “involving” (Inv9). See Table 2 for scale indicators and Cronbach’s α .

Table 2. Confirmatory Factor Analysis and Measurement Model Results.

Variable	Indicators	β	Std. Error	z	Cronbach’s α
Self-Identity [48]	Self1	0.88	0.02	53.25	0.88
	Self2	0.85	0.02	45.81	
	Self3	0.81	0.02	37.05	
Cognitive Involvement [29]	Inv5	0.83	0.02	41.52	0.89
	Inv8	0.82	0.02	39.25	
	Inv10	0.84	0.02	43.42	
Affective Involvement [29]	Inv4	0.74	0.03	23.98	0.85
	Inv7	0.84	0.03	31.32	
	Inv9	0.84	0.03	30.33	
Patronage Intention (Revised from [52])	PI1	0.86	0.02	54.27	0.92
	PI2	0.96	0.01	99.81	
	PI3	0.86	0.02	53.07	

Notes: Goodness-of-Fit statistics: χ^2 (48) = 120.05, $p < 0.001$; CFI = 0.98; TLI = 0.97; RMSEA = 0.06; SRMR = 0.05; CFI = Comparative Fit Index; TLI = Tucker-Lewis index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual; β = standardized coefficients; z = z-score; Self1, Self2, and Self3 are the items used to measure self-identity [48]; Inv4, Inv5, Inv7, Inv8, Inv9, and Inv10 are items used to measure cognitive and affective involvement [29]; PI1, PI2, and PI3 are the items used to measure patronage intention [52].

3.2. Measurement Model

Structural equation modeling (SEM) was used to analyze the models (STATA version 13.1 software). Because the variables tested in this study are latent variables, which cannot be measure directly, SEM allows researchers to obtain a better idea of the relationships between observed indicators and the latent variables. It shows the contribution of each indicator to the corresponding latent variable [68]. Additionally, SEM has been recommended when assessing more complicated mediation models, such as the model with multiple or serially linked mediators [69]. Before estimating the structural model, confirmatory factor analysis (CFA) was conducted to examine the characteristics of the measurements. The CFA result suggested an excellent model fit, χ^2 (48) = 120.05, $p < 0.001$, CFI = 0.98, TLI = 0.97, RMSEA = 0.06, SRMR = 0.05 (based on the criteria standard by Hu and Bentler [70]). Standardized parameter estimates indicated that the latent variables have been effectively measured by their respective indicators as all factor loadings are >0.67 at $p < 0.001$ level (Table 1). All the average variance extracted (AVE) values were higher than 0.50, which supports the convergent validity of the model, and AVE was also higher than the squared correlations among latent variables providing support for discriminant validity of the model (Table 3). These results indicated that the model was appropriate for further hypothesis testing, and the modification indices were not needed to re-specify the model.

Table 3. Squared correlations among constructs and AVE.

	Self-Identity	Cognitive Involvement	Affective Involvement	Patronage Intention
Self-Identity	0.72			
Cognitive Involvement	0.56	0.69		
Affective Involvement	0.13	0.28	0.65	
Patronage Intention	0.51	0.63	0.15	0.80

Notes: Average variance extracted (AVE) value appears as bold numbers along the diagonal. All correlations are significant at $p < 0.001$.

3.3. Structural Models

To test the hypotheses, the data was split into two groups, men’s and women’s responses ($N_{men} = 191$; $N_{women} = 182$). Using the model proposed as shown in Figure 1, male and female consumers’ responses were tested, respectively, to compare whether gender plays a significant role that influences the performance of the two involvement factors.

3.3.1. Results of Women’s Model

Unexpectedly, the SEM result of the women’s model demonstrated a poor model fit, $\chi^2 (49) = 176.41$, $p < 0.001$, Comparative Fit Index (CFI) = 0.92, Tucker-Lewis index (TLI) = 0.89, Root Mean Square Error of Approximation (RMSEA) = 0.12, Standardized Root Mean Square Residual (SRMR) = 0.09 (based on the criteria standard by Hu and Bentler [70]), despite the excellent model fit derived from the CFA. The model modification indices indicated that the model fit could be improved by correlating the variable errors of cognitive involvement and affective involvement. As discussed in the previous section, the two involvement variables originated from the same scale which exhibits good inter-item reliability [29,37]. From this theoretical point of view, the women’s model was tested again with the errors correlated as suggested by the modification indices (Figure 2). As a result, the model was improved with a much better model fit, $\chi^2 (48) = 113.11$, $p < 0.001$, CFI = 0.96, TLI = 0.94, RMSEA = 0.09, SRMR = 0.05.

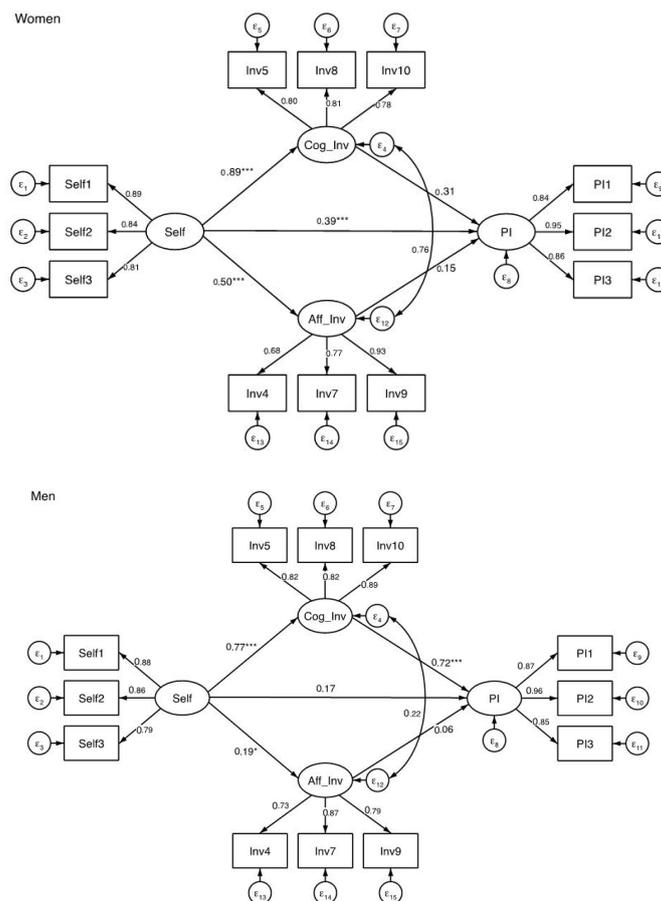


Figure 2. Results of the models $N = 373$. Model fit (women): $\chi^2 (48) = 113.11$, $p < 0.001$, CFI = 0.96, TLI = 0.94, RMSEA = 0.09, SRMR = 0.05. Model fit (men): $\chi^2 (48) = 96.16$, $p < 0.001$, CFI = 0.97, TLI = 0.96, RMSEA = 0.07, SRMR = 0.06. Standardized beta weights shown; men’s results in parentheses. All indicators are significant at $p < 0.001$. R^2 (women) = 0.57; R^2 (men) = 0.71. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

The results showed that in the women's model, H_{1a} and H_{1b} were both supported. There were significant positive relationships between women's green self-identity and cognitive involvement ($\beta = 0.69, p < 0.001$) providing support for H_{1a}, as well as affective involvement ($\beta = 0.50, p < 0.001$) supporting H_{1b}. In this sample, it was found that women's green self-identity is a significant indicator of their patronage intention ($\beta = 0.39, p < 0.001$), which provided support for H₂ in women's model. However, neither the effects of cognitive nor of affective involvement showed a significant direct impact on patronage intention ($\beta_{\text{cog to pi}} = 0.31, p = 0.07$; $\beta_{\text{aff to pi}} = 0.15, p = 0.26$). Thus, H₃ and H₄ in the women's model were rejected. As a result, the mediating effect of affective involvement (H₅) was not supported. The R² of the model was 0.57. The direct, indirect, and total effects were presented in Table 4.

Table 4. Decomposition of direct, indirect, and total effects.

Path	Direct Effect	Indirect Effect	Total Effect
Model for Women			
<i>Cognitive Involvement (Cog_inv)</i>			
← Self	0.69 ***	—	0.69 ***
<i>Affective Involvement (Aff_inv)</i>			
← Self	0.50 ***	—	0.50 ***
<i>Patronage Intention (PI)</i>			
← Cog_inv	0.31 n.s.	—	0.31 n.s.
← Aff_inv	0.15 n.s.	—	0.15 n.s.
← Self	0.39 ***	0.29 ***	0.68 ***
Model for Men			
<i>Cognitive Involvement (Cog_inv)</i>			
← Self	0.77 ***	—	0.77 ***
<i>Affective Involvement (Aff_inv)</i>			
← Self	0.19 *	—	0.19 *
<i>Patronage Intention (PI)</i>			
← Cog_inv	0.72 ***	—	0.72 ***
← Aff_inv	−0.06 n.s.	—	−0.06 n.s.
← Self	0.17 n.s.	0.55 ***	0.72 ***

Notes: N = 373. Standardized coefficients are reported. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.s. = non-significant.

3.3.2. Results of Men's Model

The same model, including correlated error, was tested with the men's responses. The SEM result of the men's model demonstrated a good model fit, $\chi^2(48) = 96.16, p < 0.001$, CFI = 0.97, TLI = 0.96, RMSEA = 0.07, SRMR = 0.06. In the men's model, H_{1a} and H_{1b} were supported. There is a significantly positive relationship between men's green self-identity and cognitive involvement (H_{1a}) ($\beta = 0.77, p < 0.001$), as well as affective involvement (H_{1b}) ($\beta = 0.19, p < 0.05$). Interestingly, the relationship between men's green self-identity and patronage intention was not statistically significant ($\beta = 0.17, p = 0.07$); thus, H₂ was rejected. Moreover, the results showed that there was a significant relationship between cognitive involvement and patronage intention (H₃) ($\beta = 0.72, p < 0.001$), but not between affective involvement and patronage intention (H₄) ($\beta = -0.06, p = 0.29$). Thus, H₃ was supported, but H₄ was rejected. In regard to the mediating effects, men's patronage intention was mediated by cognitive involvement but not by affective involvement. Thus, H₆ was supported (Figure 2). The direct, indirect, and total effects were presented in Table 4. The R² of the model was 0.71. A summary of the hypotheses for both the women's and men's models are listed in Table 5.

Table 5. Results of Hypothesis testing.

Hypothesis: Direct Path	Model	β	B	Std. Error	z	Result
H _{1a} : Self-Identity→Cognitive Involvement	Women	0.60	0.69	0.05	13.14 ***	Supported
	Men	0.76	0.77	0.04	19.56 ***	Supported
H _{1b} : Self-Identity→Affective Involvement	Women	0.29	0.50	0.07	7.60 ***	Supported
	Men	0.11	0.19	0.08	2.37 *	Supported
H ₂ : Self-Identity→Patronage Intention	Women	0.37	0.39	0.10	4.09 ***	Supported
	Men	0.15	0.17	0.09	1.81	Rejected
H ₃ : Cognitive Involvement→Patronage Intention	Women	0.33	0.31	0.17	1.79	Rejected
	Men	0.64	0.72	0.09	7.95 ***	Supported
H ₄ : Affective Involvement→ Patronage Intention	Women	0.24	0.15	0.13	1.13	Rejected
	Men	−0.09	−0.06	0.05	−1.05	Rejected
H ₅ : Self-Identity→Affective Involvement → Patronage Intention	Women	−	−	−	−	Rejected
H ₆ : Self-Identity→Cognitive Involvement → Patronage Intention	Men	−	−	−	−	Supported

Notes: β = standardized coefficients; B = unstandardized coefficients; z = z-score.

4. Discussion

While eco-friendly apparel is made available in current markets [71,72], its promotion has been recognized to be challenging [12,73]. This study examined the characteristics of eco-friendly apparel consumers and how gender differences affect the consumer's patronage intention. The findings of the study showed that consumers' environmentally conscious self-identity is an important antecedent which can increase their involvement with eco-friendly apparel (H_{1a} and H_{1b}). As suggested by Eisler et al. [17], personal values are important determinants of a person's involvement. The present study not only confirmed this proposition but also moved the examination further to the RPII's sub-constructs of cognitive and affective involvement. The findings indicated that there is a positive relationship between consumers' green self-identity and their cognitive and affective involvements toward eco-friendly apparel. That is, an environmentally conscious consumer is more likely to appreciate the green attributes of eco-friendly apparel and also have affective attachments with the products. This is true of both male and female consumers.

While a green self-identity seems to be a promising indicator of involvement across genders, its direct influence on consumers' patronage intention is different between men and women (H₂). Women who possess an environmentally friendly identity exhibit a stronger commitment and patronage intention towards companies that sell eco-friendly apparel compared to their male counterparts. In comparison, men do not exhibit a significant link between their green self-identity and purchase intent. The result for women supports the notion put forth by Grubb and Grathwohl [44] that people tend to consume certain products to retain their self-consistency. Unfortunately, in this research, men's patronage intention is not influenced by their green self-identity. In general, women tend to use clothes as a tool to manage their appearance and to express their identity [74]. Women are more attached to emotional and symbolic possessions, whereas men tend to value functional and instrumental products [75]. This provides an explanation for the finding that in this study women's green self-identity is statistically significantly related to their eco-friendly apparel patronage intention, while men's is not. The findings can also be explained based on the viewpoint of the gender division of labor [66], mentioned in the previous section regarding men's role in the labor force, that men may not consider consuming eco-friendly apparel as an active way to express their environmentalism. Perhaps men's responses would be different with other green product categories, such as energy-saving cars.

Another focus of the study was to determine whether men and women are motivated by different aspects of involvement in eco-friendly apparel consumption (H₅ and H₆). In the hypotheses, it was proposed that men were more likely to be motivated by cognitive involvement, whereas women would be primarily motivated by largely affective involvement. The findings indicated that for men, as expected, cognitive involvement is a prominent indicator of their patronage intention. They are more likely to be motivated by the cognitive aspects of their involvement, such as meaningful, valuable,

and needed, with eco-friendly apparel. Thus, when communicating with male consumers about sustainable apparel, the messages that induce the sense of responsibility will be more likely to motivate their purchase intention.

Unexpectedly but interestingly, the findings showed that women's patronage intentions were influenced by neither affective involvement nor cognitive involvement. For female consumers, being cognitively or affectively involved with eco-friendly apparel are not the most important factors driving their patronage intent. Since women are generally more fashion conscious [76–78], perhaps their decision-making process is more complicated than just focusing on the environmental friendliness of eco-apparel as the only determining factor. Unless the women have a strong environmentally conscious identity, for female consumers, the primary reasons influencing their decision making may be other factors such as style, fabric, fit, or color of the apparel. Comparing to the R^2 of women's and men's models, the proposed model in this study is a better explanation of male consumers' behaviors. This may also indicate that other variables, such as fashion opinion leader and fashion innovativeness, need to be taken into consideration to explain women's eco-friendly apparel patronage intention.

In sum, this study shows that men and women can be motivated by different factors in sustainable apparel consumption. Brough et al. [79] conducted a research study in green-feminine stereotype and suggested that "this green-feminine stereotype may motivate men to avoid green behaviors in order to preserve a macho image" (p. 567). Stewart [21] argued that the conclusion might not be applicable to sustainable apparel consumption because the statistics from an eco-focused outdoor brand shows that there are about equal numbers of men and women who purchase its eco-friendly apparel. Thus, men did not avoid green behaviors to preserve a macho image in sustainable apparel consumption. The finding of Brough et al. has been overgeneralized in that they did not examine sustainable apparel in their studies. However, this also indicated the need of relevant studies that focus on a particular green product in order to obtain a holistic understanding of consumer green behavior. In addition, the findings of this present study may be able to provide some explanation. Women purchased sustainable apparel from the outdoor brand in order to express their green self-identity. Men might be encouraged to purchase the sustainable apparel from the outdoor brand because the company's mission, "cause no unnecessary harm" and "implement solutions to the environmental crisis" [21] reconciled with their cognitive involvement in the value, meaning, and necessity of the products. Instead of framing the marketing message that affirms the masculinity as proposed by Brough et al., this study suggests to construct the message that induces the sense of responsibility [15]. Nonetheless, more in-depth studies are needed to expand this research stream.

5. Managerial Implications

The findings of this study provide several managerial implications for marketers to promote eco-friendly apparel. While several communication barriers have been identified in eco-friendly apparel acquisition, such as lack of knowledge, uncertainty of quality, and trust of the company [12], this study provides some directions to improve the marketing communication of eco-friendly apparel. The results suggest that gender specificity is important in market communication. When creating a marketing promotion strategy for eco-friendly apparel, it is imperative to be aware that men and women are triggered by different cues. One can develop a differentiated marketing promotion strategy for men and women separately. As a starting point, based on the findings, when targeting male consumers, rational narratives and reasoning may be more likely to help men perceive the value and necessity of eco-friendly apparel. It may be more efficient and persuasive to provide them such product details as how many recycled water bottles were used to make a pair of jeans. Such message delivers a solid concept to remind them the meaningfulness of sustainable apparel. For female consumers, the communication strategy may focus on images or/and messages that induce their green self-identity. However, this strategy may be effective only to those who exhibit strong environmental awareness.

Marketers can also create an undifferentiated promotion strategy including both aspects of cues. For companies that aim to promote a general brand image or to target both genders, they may want to

include both cues, which are the messages that reflect the green self-identity and cognitive involvement, to increase the effectiveness of the promotion ad. The finding of this study shows that combining the two may help to maximize the effect of the marketing message. Keeping both cues in balance in the presentation will be important when applying this type of marketing communication to avoid distractions. Nonetheless, the effect of such strategies mentioned above in eco-friendly apparel requires further research examination.

6. Conclusions: Final Remarks, Limitations, and Future Research

In the apparel industry, some production processes have raised a number of environmental and social issues, for example, the large quantities of pesticides used to grow cotton, water pollution from fabric dyeing/printing and finishing, and the use of “sweat shops” in foreign countries [5]. To integrate the sustainability paradigm in corporate operations, many apparel companies have not only adopted more sustainable manufacturing processes but also strive to provide consumers more eco-friendly products that use organic fibers or recycled materials [80], such as post-consumer recycled plastic bottles.

To better understand the consumers and the associated factors affecting their patronage intentions regarding eco-friendly apparel, this research study was conducted by using a U.S. national representative sample of U.S. consumers to provide empirical evidence that closely reflects current markets. The findings of the study indicated that the patronage intent of men and women are motivated by different factors when they consider eco-friendly apparel. To stimulate their interest toward the products, marketers need different motivating cues. Men are more likely to feel motivated and involved through utilitarian performance and functional product information, while women are more likely to be involved when they can use the product to express their green self-identity.

Many future studies can be envisioned based on the findings in this study. First, a comparison of different eco-products should be conducted to explore whether men’s and women’s attitudes also vary across other eco-friendly product categories. Second, this study has identified different motivations between men and women in eco-friendly consumption. A future study can utilize experimental research designs to examine how different types of promotion messages (cognitive vs. affective) in an ad influence their eco-friendly product consumption. Third, as the sample was selected from the U.S. consumers, the results may not reflect consumers’ attitudes from different countries. A study of a cross-cultural comparison of consumers could be conducted.

As with most research studies, this study exhibits limitations as well. Although the sample was collected to reflect the current structure of U.S. consumers in age and gender, the sample was selected from a commercial panel which might have introduced a selection bias. Thus, the generalization of the results is limited. In addition, this study focused on one antecedent of involvement (green self-identity). Therefore, the effect of cognitive and affective involvement might have been limited. Another critical limitation of this study is the measure of the dependent variable, patronage intention. This study measure consumers’ intention instead of actual behavior. It has been noticed that there is a green attitude-behavior gap in green behavior [81,82]. Consumers’ favorable attitudes may not lead to their actual green behaviors. Moreover, this research study is based on a self-administered questionnaire, which may have introduced the method bias. Thus, the implications should be considered with caution. More studies are needed to investigate the topic by applying different research methods and to carefully examine the effectiveness of the managerial implications proposed in the study. Lastly, as consumers keep gaining knowledge about eco-friendly products, consumers’ attitudes may change in the near future. A longitudinal study could be useful to provide an integrated understanding of eco-friendly apparel consumption.

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