의류 상품 전시와 상품에 대한 관여도가 미국 온라인 소비자에 미치는 영향

The Effects of Apparel Product Presentation on Consumer Responses in U.S. Online Retailing

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초 록

본 논문은 의류 상품 전시와 상품에 대한 관여도가 소비자의 인지, 감성적 반응, 구매 의도에 미치는 영향에 대하여 살펴보았다. 의류 상품 전시의 세 가지 종류(모델 없이 펼쳐놓은 의류 상품 전시 vs. 모델, 얼굴이 없는 의류 상품 전시 vs. 모델, 얼굴을 포함한 의류 상품 전시)의 집단간 실험 설계를 하였으며 상품에 대한 관여도(관여도 높음 vs. 낮음)를 조절변수로 하였다. 429명의 학생을 대상으로 온라인 실험 연구를 실시하였다. 분석 결과, 모델을 이용한 상품 전시의 효율성이 검증되었으며, 의류 상품에 대한 관여도가 높은 소비자들은 관여도가 낮은 소비자들에 비하여 모든 상품전시에 더 긍정적인 반응을 보이는 것으로 나타났다. 본 연구 결과는 실험적인 증거를 통하여 이론적인 통찰력을 제시하였으며, 의류 소매 업체에 유용한 지식을 제시하였다.

ABSTRACT

This study examined the effect of product presentation on consumers' affective/cognitive states and purchase intention. The design of the study was a one factor(product presentation: garment presented flat vs. garment presented on models without faces vs. garment presented on models with faces) between-subject design with a moderator (involvement: high vs. low). A sample of 429 female college students participated in this online experiment. The results show the effectiveness of using a realistic human model on apparel websites. Also, consumers who are highly involved with clothing generally exhibit more positive responses than those who are less involved. Overall, these findings provide empirical support for the Stimulus-Organism-Response model and the Elaboration Likelihood Model, and contribute useful knowledge regarding website design for online apparel retailers.

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1. Instroduction

Industry reports suggest that U.S. online shopping and online sales of apparel are flourishing. Total U.S. retail sales in 2010 reached $3.92 trillion, an 8.6% increase over 2009, but e-commerce grew 14.7% and remains the fastest growing segment of the retail market [23]. In 2011, online sales of apparel and accessories reached $28 billion, a 21.2% increase over 2010 [14].

Despite this growth in apparel online shopping, research and industry reports [13] suggest that apparel retailers face barriers online and attitudes toward online shopping for apparel are not as positive as attitudes for products like books and computer software [42]. eMarketer [13] reported that 66% of respondents still prefer to touch and try on clothing prior to purchase, while Internet Retailer [21] cited the inability to try on clothing as the key challenge for online apparel sales. Especially for products like apparel that require sensory evaluation, consumer's attitudes toward apparel sold online tend to be more negative compared to their attitudes toward product such as books and computer software that do not require sensory evaluation [46]. To compensate, e-retailers are considering different online product presentation methods [33], specifically whether to use "on-figure" photos (using models), "lie-down" shots (products laid out flat and photographed), or mannequins to pre-

sent the clothing. Athough a Liz Claiborne VP has said that on-figure shots work better at LizClaiborne.com than lie-down shots, the company has recently moved to less expensive mannequins, while Figleaves.com tried mannequins, but went back to models because their customers preferred them. J. C. Penney executives have also agonized over using models versus lie-down shots. Clearly, the choice of whether to use models, mannequins, or photograph the merchandise flat is an important concern for e-retailers. In addition, extant online shopping research suggests that the use of technology enhancing realistic sensory experiences and effective visual merchandising techniques are essential to satisfy a consumer's need for direct touch of apparel products when shopping online [26, 46].

Another characteristic in product presentation is the use of a model's face. According to a content analysis of 30 US apparel websites using human models (ranked by Internet Retailer, [23]), about 60% showed a model's body including the face and 36.7% of websites showed just the body. Much advertising research has confirmed the effectiveness of the model's attractiveness [3, 25, 48]. However, the effects of including the model's face have not been studied in an online context despite its prevalence. This study therefore focuses on this issue.

This study also examined the effects of an individual characteristic, personal invol-

vement, on responses to product presentation. Applying the Elaboration Likelihood Model (ELM) to online shopping, researchers have found that motivation to respond to product presentation is influenced by involvement level [41] and product involvement influences the relationship between website environments and consumers' internal states [17, 38]. However, the moderating effect of involvement on the relationship between specific presentation types and consumer responses has not been tested. Thus, this research examined the effect of online apparel product presentation on responses and sought to determine if personal involvement would moderate that effect.

2. Literature Review

2.1 Theoretical Framework

The Stimulus-Organism-Response model [35] holds that stimuli (S) in the environment affect internal states (O) within people. The internal states (pleasure, arousal, and dominance) in turn are thought to affect responses (R) in terms of approach and avoidance, thus mediating between stimuli and responses.

Donovan and Rossiter [11] applied the S-O-R model to retail stores and found that pleasure is an important predictor of approach-avoidance intent within the store.

Arousal, the excitement and alertness induced by the environment, positively affects time spent in the store and communications with sales personnel. Donovan and Rossiter reasoned that pleasure and arousal are more relevant than dominance to responses in most environments. The S-O-R model was modified for the online environment by Eroglu et al. [17], who introduced cognition into the model as an internal response influenced by pleasure and arousal. The S-O-R model as modified by Eroglu et al. was therefore applied in this research to examine how retail website product presentation (S) influences affective (pleasure and arousal) and cognitive states (perceived amount of information) (O), which in turn affect purchase intent (R).

2.2 Product Presentation

In their analysis of 100 apparel websites, Ha et al. [18] reported the e-retailers most frequently used a flat display (78%), followed by models (50%) and then mannequins (47%). However, photos of garments on a three-dimensional form are known to be important to consumers when buying apparel online; 89% of the respondents in Then and Delong's [55] study preferred garments to be displayed on realistic human models online, suggesting that people are more confident when shopping online for apparel if it is displayed on a three-dimen-

sional form (i.e., mannequins or models).

The use of a model's face when presenting garments online also varies among e-retailers. The effects of attractive models' faces have been supported in much advertising research [3, 25, 48], suggesting that people like attractive communicators more than unattractive communicators. According to Baker and Churchill [3], if people have positive attitudes toward a communicator, they will also evaluate the communicator's message in positive ways. This halo effect leads consumers to evaluate the ads and the product advertised favorably when attractive models are present in the ads. Although the effectiveness of attractive models in advertisements is well known, the effect of a model's face on consumer responses has not been explored in an online context. Given that a website is similar in many ways to traditional advertisements [47], similar effects are likely to be evoked in online environments. Thus, if clothing is presented by attractive models on websites, then consumers would be expected to have more favorable attitudes toward the clothing and the brand. Hence, this general reasoning was applied in this study to assess the effect of model attractiveness on consumers' perceptions and evaluation of the clothing worn by the model.

Online product presentation can be explained by the media richness theory [53]. According to the theory, information can be divided into "lean" and "rich" media. Lean media refer to unambiguous information whereas rich media include emotional and ornamental characteristics of the information. According to Walther [53], online information is related to leanness in nature due to its inability of sensory experiences. However, depending on how a product is presented on a website, the information can be either lean or rich. For example, information may be rich if product presentation has decorative and vivid characteristics, such as a garment presented on a model with the model's face shown [16], which engender emotional responses. Product presentation online may provide unique and enjoyable experiences [7] and emotional pleasure [22]. Kim et al. [29] found that apparel presented on models has a more positive impact on emotional states than apparel presented flat, increasing pleasure and arousal. Thus, compared to apparel presented flat, it is reasonable to expect that apparel presented on a model will affect pleasure and arousal. The inclusion of the model's face should increase the level of pleasure and arousal [34]. Therefore, based on the S-O-R model and previous research findings, the following hypotheses were developed.

H1a-b : Consumers' pleasure (a) and arousal (b) differ as a function of product presentation.

2.3 Perceived Amount of Information

Cox [8] suggested that a product is perceived as a set of information. For example, price, color, and fiber content form a set of information about clothing. Since consumers acquire, process, and transmit information to make purchases [8], the presentation of product information is essential [40]. Whereas in a store consumers seek labels and hangtags to acquire garment information [15], online shoppers must obtain product information via pictures and descriptions.

Visual product information presented on websites affects responses [29, 30, 39]. Since products are presented in various ways online [18], consumers may perceive different amounts of information from different product presentations. If shoppers cannot envision what a garment will look like on them, presenting the garment on a model may help. Consumers also perceive an attractive model as presenting more information [48]; Lorenzo et al. [32] showed that attractive models influence consumers' motivation to process information, which may increase the perceived amount of information. Although Park et al. [39] argued that different types of product presentation convey differing amounts of information, this has yet to be demonstrated empirically. Therefore, the following hypothesis was investigated.

H1c : The amount of product information perceived by consumers differs as a function of product presentation.

2.4 Involvement

Product involvement is the extent to which one perceives a product to be relevant [55], with positive relationships between involvement and pleasure and arousal. In an online context, Ha and Lennon [19] found that people who are highly involved in an apparel purchase situation experience higher pleasure and arousal than less involved people.

Bloch and Richins [4] argued that highly involved consumers tend to think about and to seek information about products. The ELM holds that willingness to process information is determined by level of involvement with the product [41], and advertising research has shown that low involved people process limited information [44] and prefer image-based advertisements [27]. In online research, highly involved consumers tend to notice new product information on a website more than less involved consumers [12]. Hence, people who are high in involvement are more likely than those low in involvement to perceive and process product information and this relationship likely extends to fashion products and the online environment. Thus, the following hypotheses were developed.

H2a-c : Pleasure (a), arousal (b), and perceived amount of information (c) differ as a function of an individual's level of involvement.

According to the ELM [41], there are two routes to persuasion : central and peripheral. Central route is used to carefully process a message via high elaboration of information, whereas peripheral route does not involve careful processing and persuasion occurs through low elaboration of information. The motivation to process information via these routes is determined by involvement level. In online apparel shopping contexts, researchers [17, 19] have found that highly involved consumers engage in central route processing (e.g., attending to task relevant web cues), whereas less involved consumers engage in peripheral route processing, relying on superficial cues in the web environment (e.g., flashing logos) [27]. Examined the role of involvement in moderating relationships, Ha and Lennon [19] found that high task relevant cues (e.g., product presentation) influenced pleasure and arousal for highly involved consumers, but the effects were not significant for less involved consumers. In the model suggested by Eroglu et al. [16], involvement moderates relationships between environmental stimuli (e.g., product presentation) and the organism (e.g., affective and cognitive states). Also, involvement level influences willingness to exchange information [50]. Following the ELM, this study therefore examined the effects of product presentation on affective and cognitive states as a function of involvement level.

H3 a-c : Product presentation and clothing involvement interact to affect pleasure (a), arousal (b), and perceived amount of information (c).

2.5 Effects of Emotional States

According to Isen [24], positive emotion affects consumers' ability to handle more complex information, and they tend to be more optimistic about their shopping outcomes; consumers with positive emotions also understand stimuli in the environment better, thus creating more awareness of the stimuli. The affect-as-information model [45] supports the effects of positive or negative affective states on cognition. Pleasure and arousal can be used as information, thus influencing judgments [6, 45].

Researchers have found a positive relationship between arousal and dedication to currently active processing strategies, such as learning style and attention. Heuer and Reisberg [20] argued that arousal enhances attention to important objects. High arousal conditions make one focus more on cognitive processing [49]. Similarly, arousal may intensify information processing and posi-

tively influence perceived amount of information. Thus, the following hypotheses were developed.

H4 a-b : Pleasure (a) and arousal (b) are positively related to perceived amount of information.

Purchase intent refers to "what we think we will buy" [15, p.283]. Donovan and Rossiter [11] found that pleasure is positively related to intent to spend time and money in stores, while in the context of online shopping, Eroglu et al. [17] and Menon and Kahn [36] both demonstrated that consumers with a higher level of pleasure showed higher levels of approach behaviors toward online websites. Similarly, arousal created by website cues increases approach behaviors [17] and Ha and Lennon [19] empirically supported positive relationships between pleasure and arousal and purchase intent. Based on the literature, the following hypotheses were developed.

H5 a-b : Pleasure (a) and arousal (b) are positively related to purchase intent.

2.6 Effect of Perceived Amount of Information

Kim and Lennon [30] found a positive relationship between perceived amount of information and purchase intent in a tele-

vision shopping context, where information is only available from the hosts. However, online shopping makes a large amount of information available, so it is possible that those who perceive more information may be more likely to purchase compared to those who perceive less information. Shim et al. [46] found that intent to gain information online was significantly related to online purchase intent. Based on these studies the following hypothesis was developed.

H6 : There is a positive relationship between perceived amount of information and purchase intent associated with purchasing apparel online.

3. Method

The design of this experiment was a one factor (product presentation: garment presented flat vs. garment presented on a model without the model's face vs. garment presented on a model with the model's face) between-subjects design with a moderator (involvement : high vs. low).

3.1 Instrument

Dependent measures were adopted from existing measures in the literature with adequate reliabilities (Cronbach's αs > .77)

utilizing 7-point scales. Six pleasure items and six arousal items from Mehrabian and Russell [35] were used. Five Likert-type items from Kim and Lennon [30] were modified for an online context to assess perceived amount of information. Seven purchase intent items were adopted from Park and Stoel [40]. Clothing involvement was measured using Zaichkowsky's [56] 10-item Personal Revised Involvement Inventory (PII) scale. For the manipulation check for attractiveness, five items were adopted from Ohanian [37]. For all measures, scores on scale items were averaged, with higher scores being associated with more of the variables, and entered into the analyses for MANOVA. Major and ethnicity were assessed in a closed-ended format, and age was assessed in an open-ended format.

3.2 Stimulus Development and Procedure

In this online experiment, two styles of moderately fashionable garments selected from a pilot study were used for stimulus sampling and presented either (1) flat, (2) on a human model without the model's face, or (3) on a human model with the model's face. The three mock websites contained the same information.

Email addresses of 2600 female students were randomly selected by the office of the university registrar at a midwestern U.S. university. College women were sampled because they are frequent online shoppers for apparel products [10] and thus deemed an appropriate sample for this study. Participants were randomly assigned to one of the three websites and sent invitation emails. When the mock website was accessed, participants viewed two pages presenting the garments, and one page containing the survey.

4. Results

Of those who were sent invitation emails, 429 female students participated. Mean age was 22 years; 90.6% were between 18 and 24. Most were Caucasian (78.4%), followed by Asian (10%), and African American (9%).

4.1 Pilot Study

Stimuli for mock websites were developed in a pilot study. Female students (N = 89) rated eight garments on fashionability. Photos of garments depicted on a model were obtained from commercial websites. A five item 5-point adjective scale (e.g., attractive, stylish) was used to assess fashionability [9] and was reliable (a = .81). Scores were averaged across the five items. Two stimuli rated as moderately fashionable (M = 3.66 and 3.55) and that did not differ in fashionability (p = .59) were selected for the main experiment.

4.2 Preliminary Analyses

To determine whether or not the manipulation of models' attractiveness was effective, the scores from five items were summed and averaged for a composite measure of attractiveness. The mean score for attractiveness of the models was 6.26, with a possible range of 1 to 7. Since the mean score of attractiveness was higher than neutral, the manipulation of the attractiveness of models in the third condition was deemed successful.

Exploratory factor analyses (EFA) were performed using principal component analysis with varimax rotation to test the unidimensionality of each scale. A minimum eigenvalue of 1.0 and a scree plot were used as criteria to control the number of factors extracted. The following variables were found to be unidimensional : involvement, perceived amount of information, and purchase intent. Consistent with prior research, the scale for emotional states had two factors: pleasure and arousal. Cronbach's αs were calculated to ensure internal consistency of the items and found to be reliable (all Cronbach's αs > .81).

A median-split (Med = 57) was used to classify participants into high involvement (range = 57, 70), and low involvement (range = 10, 56) groups. There were 222 participants (51.7%) in the high involvement and 207 participants (48.3%) in the low involvement groups. Results of t-test [t (428) = 96.82, p < .001] and cell inspection showed that scores in the high involvement group (M = 64.15, SD = 4.76) were significantly higher than scores (M = 45.93, SD = 9.72) in the low involvement group.

4.3 Measurement Model Specification

A confirmatory factor analysis (CFA) was conducted via AMOS 20. To estimate reliability and validity of the items for latent constructs, the measurement model was evaluated and adjusted based on the values and factor loadings and SMC suggested by Bagozzi and Yi [2], and the second method provided by Anderson and Gerbing [1]. Overall, the results of CFA indicate a satisfactory fit of the model to the data (χ^2 = 113.05, df = 59, p < .000, RMSEA = .046 [90% C.I. = (.033; .059)], NFI = .966, CFI = .984, IFI = .984, and TLI = .978). All the average variances extracted (AVE) were over .54 (see <Table 1>), indicating construct reliability. Results from CFA of the measurement model revealed that all path coefficients in the CFA model were greater than .7 and statistically significant at p < .001, providing evidence of convergent validity (see <Figure 1>). In addition, all AVEs were greater than squared correlation coefficients, further confirming discriminant validity (see <Table 1>).

〈Table 1〉 Correlations, Composite Reliabilities and AVEs of Latent Constructs

Latent Constructs	Pleasure	Arousal	Perceived Amount of Information	Purchase Intention
Pleasure	.69[a]			
Arousal	.52[b] .27[c]	.54		
Perceived amount of Information	.40 .16	.34 .12	.64	
Purchase Intention	.32 .10	.32 .10	.38 .14	.73

Note : a Average variance extracted, b Correlation, c Squared Correlation.

4.4 Hypotheses Testing

Hypotheses 1 to 3 were tested using MANOVA. There were significant multi-variate main effects for product presentation [Wilks' λ = .92, F (6, 842) = 5.90, p < .001] and product involvement [Wilks' λ = .93, F (3, 421) = 3.95, p < .01] on the dependent variables. There was also a significant interaction between product presentation and product involvement [Wilks' λ = .97, F (69, 842) = 2.19, p < .05]. To determine which dependent variables contributed to the significant multivariate effects, follow-up between subjects' ANOVAs were performed. Main effects were found for product presentation on pleasure [F (2, 423) = 8.59, p < .001], arousal [F (2, 423) = 6.62, p < .01], and perceived amount of information [F (2, 423) = 12.56, p < .001]. Post hoc comparisons (Tukey HSD) further revealed that participants experienced greater pleasure and arousal and perceived more information when a garment was presented

on a human model without the face (p < .001, .01, and .001, respectively) and with the face (p < .05, .01, and .001, respectively) than when a garment was presented flat. However, there was no difference between a garment on a model without the face and a garment on a model with the face (see 〈Table 2〉). Therefore, Hypothesis 1 was supported.

ANOVAs also revealed main effects for product involvement on pleasure [F (1, 423) = 19.25, p < .001], arousal [F (1, 423) = 25.97, p < .001], and perceived amount of information [F (1, 423) = 16.53, p < .01]. Inspection of cell means revealed that regardless of product presentation, highly involved participants experienced greater pleasure and arousal, and perceived more information, than low involved participants (see 〈Table 3〉). Thus, Hypothesis 2 was supported.

Finally, ANOVAs showed significant interaction effects between product presentation and product involvement on pleasure [F (2, 423) = 7.68, p < .01] and perceived

amount of information [F (2, 423) = 4.26, p < .05]. Simple effects tests were used to analyze each level of the involvement groups for each interaction. Compared to low involved participants, highly involved participants experienced greater pleasure [F = (2, 423) = 13.38, p < .001] and perceived more information [F = (2, 423) = 13.30, p < .001] when the garments were presented on a model than when the garments were presented flat (see <Table 3>). Therefore, only Hypotheses 3a and 3c were supported.

Hypotheses 4 to 6 predicted relationships among response variables. Single group structural equation modeling was performed using the maximum likelihood function. The analysis showed a satisfactory fit of the model to the data (χ^2 = 113.05, df = 59, p < .000, RMSEA = .046 [90% C.I. = (.033; .059)], NFI = .966, CFI = .984, IFI = .984, and TLI = .978). As shown in <Figure 1>, pleasure significantly influenced perceived amount of information and purchase intent; arousal also influenced perceived amount of information and purchase intent. Perceived amount of information positively influenced purchase intent. Thus, Hypotheses 4 to 6 were supported.

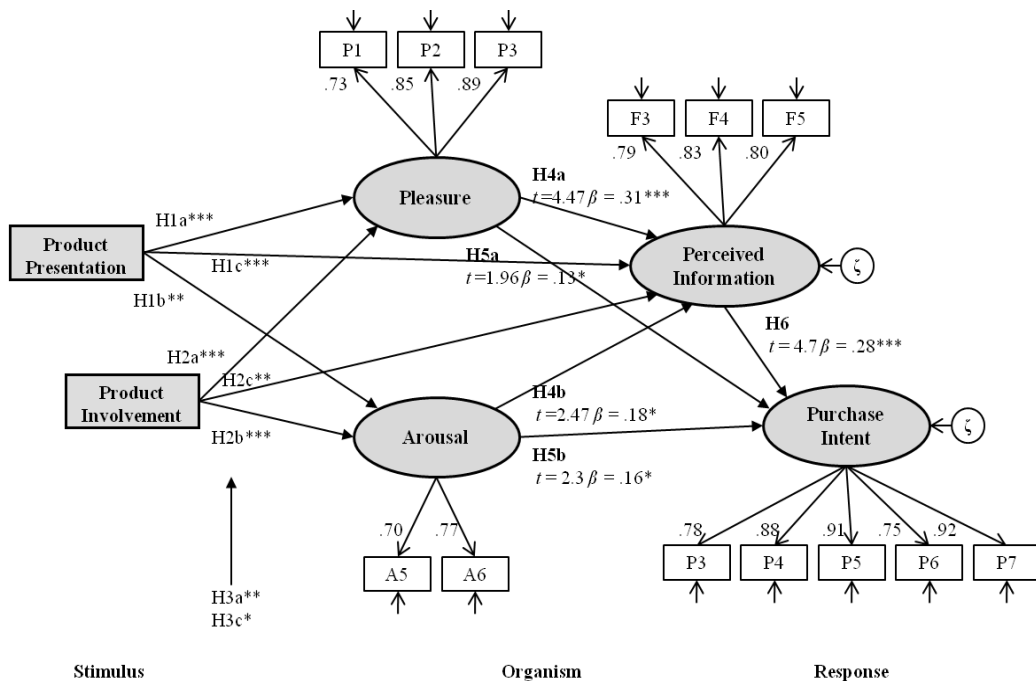〈Table 2〉 Post-Hoc Comparisons among Three Conditions of Product Presentation

	Dependent Variable	(1)	(2)	Mean Score of (1)	Mean Score of (2)	p
Tukey HSD	Pleasure	Flat	Model no face Model face	4.36	5.01 4.73	.000[*] .035[*]
		Model no face	Model face	5.01	4.73	.136
Tukey HSD	Arousal	Flat	Model no face Model face	3.39	3.81 3.73	.001[*] .009[*]
		Model no face	Model face	3.81	3.73	.758
Tukey HSD	Perceived amount of information	Flat	Model no face Model face	3.90	4.58 4.53	.000[*] .000[*]
		Model no face	Model face	4.58	4.53	.921

Note : The mean difference is significant at the .05 level.

〈Table 3〉 Mean Scores of Dependent Variables for Each Condition

	Flat			Model without face			Model with face			Total	
	LIG	HIG	Total	LIG	HIG	Total	LIG	HIG	Total	LIG	HIG
N = 429	71	65	136	69	83	152	67	74	141	207	222
Pleasure	4.36 (1.11)	4.36 (1.28)	4.36 (1.19)	4.52 (1.35)	5.42 (1.16)	5.01 (1.33)	4.38 (1.27)	5.05 (1.26)	4.73 (1.30)	4.41 (1.24)	4.99 (1.30)
Arousal	3.30 (1.03)	3.49 (.93)	3.39 (.99)	3.49 (1.02)	4.08 (.93)	3.81 (1.01)	3.39 (.97)	4.04 (.90)	3.73 (.98)	3.391 (1.00)	3.89 (.95)
Perceived Info	3.89 (1.28)	3.92 (1.31)	3.90 (1.29)	4.19 (1.28)	4.91 (1.13)	4.58 (1.25)	4.30 (1.11)	4.73 (1.14)	4.53 (1.14)	4.12 (1.23)	4.56 (1.26)

Note : Mean (SD), LIG : Low involvement group, HIG : High involvement group.

〈Figure 1〉 The Proposed Conceptual Model and Standardized Estimates and Significance Test for H4 to H6 (*$p < .05$, **$p < .01$, ***$p < .001$)

5. Conclusions and Implications

These results show the effectiveness of using human models on apparel websites. When apparel was presented on a human model, people experienced greater pleasure and arousal and perceived more information than when the apparel was presented flat. Thus, e-retailers should present apparel on human models wherever possible. The results underscore the importance of visual information for e-retailers because consumers heavily rely on the images presented on websites.

Contrary to previous research [3, 25], the inclusion of an attractive model's face did not influence responses, perhaps because involvement with the product is more important in affecting consumer responses than the attractive model in an online environment [43]. This supports Caballero et al. [5], who reported that an attractive model may not be an effective marketing tool and may not guarantee consumers' buying behavior. This result suggests that the inclusion of the model's face is unnecessary as it does not enhance consumers' perception of the amount of information available and can thus be omitted to reduce costs. Although advertising and websites are sim-

ilar in many ways [47], this inconsistency may stem from fundamental differences in the roles each medium plays. In print advertising, consumers may not need to fully examine products because they will have an opportunity to do so later. However, consumers expect to be able to examine products for purchase via website presentations. This result contributes to the enhanced understanding of online retailing literature, specifically on online product presentations.

This study also found a moderating effect for personal involvement. Participants who were highly involved with clothing experienced greater pleasure and arousal and perceived more information for all product presentation conditions than those who were less involved, which is consistent with both Eroglu et al.'s [16] conceptual model and the ELM. E-retailers should provide the best presentation possible to attract highly involved consumers since they are more likely to be active shoppers than less involved women.

Participants who experienced greater pleasure and arousal also perceived more information and had greater purchase intent, supporting the "affect-as-information" model. Perceived amount of information was also a strong predictor of purchase intent, which further provides empirical evidence to support the S-O-R model. As posited the S-O-R model, product presentation influenced consumers' pleasure, arousal, perceived amount

of information, which in turn influenced purchase intention. The results suggest a useful strategy for apparel website development. Due to the nature of online shopping, people tend to perceive limited information from websites compared to traditional retail shopping. To compensate, e-retailers can develop more pleasant and exciting websites to facilitate information processing and purchasing. For example, interesting visual images generate more apparel purchases online [52] and better product displays enhance online shopping [51]. According to Yoo and Kim [54], visual product presentations that utilize product coordination enhance pleasure and arousal, which in turn increase perceived amount of information and purchase intent. Kim and Forsythe [28] argued that the use of virtual try-on technology increases the hedonic value of online shopping, thus increasing purchase intention. E-retailers can also capture less involved consumers' attention by utilizing visual images. By using human models, e-retailers provide more information and a pleasant environment.

This study successfully integrated the predictions of the S-O-R model and the ELM and extended them to the online context, providing evidence to support the use of human forms to display apparel online. The findings also provide empirical support of the importance of involvement in an online shopping context and further extend

the existing literature by providing empirical support for the moderating role of involvement and the ELM.

6. Limitations and Recommendations

A convenience sample of college women was used, with 90% of the participants being under 24, so although they will be useful to e-retailers targeting young women, these findings may not be generalizable to all potential online shoppers.

This study examined the effects of high task relevant cues (product presentation) on consumer responses and the moderating role of product involvement, demonstrating that product presentation plays a key role in enhancing shopping outcomes, especially for those who are highly involved. Future studies should investigate the effects of low task relevant cues providing hedonic aspects of online shopping for less involved consumers.

It would also be beneficial for e-retailers to investigate the effects of different product presentation types (e.g., apparel on a mannequin vs. apparel on a human model) and the effect of different product type. For example, retailers of basic/staple merchandise such as t-shirts may not need to use a human model and if a mannequin presentation is effective in influencing purchase intent, then small e-retailers who cannot afford to use a human model could save money by using mannequins.

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〈Appendix〉

Pleasure

P1. Unhappy - Happy

P2. Annoyed - Pleased

P3. Unsatisfied - Satisfied

P4. Melancholic - Contented

P5. Despairing - Hopeful

P6. Bored - Relaxed

Arousal

A1. Relaxed - Stimulated

A2. Calm - Excited

A3. Sluggish - Frenzied

A4. Dull - Jittery

A5. Sleepy - Wideawake

A6. Unaroused - Aroused

Perceived amount of information

F1. The website you viewed today contained very much information

F2. From watching the website, I learned a great deal about the product

F3. The pictures of clothing was very informative

F4. After watching the website, I know enough to make an informed purchase decision

F5. I can fully trust information given by the pictures

Purchase Intent

P1. How likely is it that you would try the clothing from the website you saw today?

P2. How likely is it that you would buy clothing items if you happened to see them from the website that you saw today?

P3. How likely is it that you would actively seek out clothing items from the website that you saw today in order to purchase them?

P4. How likely is it that you would buy the apparel item from the website that you saw today in the next 12 months?

P5. How likely is it that you would shop for apparel from the website you saw today when you buy apparel in the upcoming year?

P6. How likely is it that you would buy apparel from the website you saw today when you find something you like?

P7. How likely is it that you would buy an apparel item from the websites that you saw today for yourself in the upcoming year?

<u>Product Involvement</u> : To me, clothing is _____ .

1. Unimportant - Important
2. Boring - Interesting
3. Irrelevant - Relevant
4. Unexciting - Exciting
5. Means nothing - Means a lot to me
6. Unappealing - Appealing
7. Mundane - Fascinating
8. Worthless - Valuable
9. Uninvolving - Involving
10. Not needed - Needed

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