*JUNGMIN YOO   East Carolina University

MINJEONG KIM   Oregon State University

The Effect of Brand Image Inconsistency on Patronage Intent in U.S. Multi-channel Retailing

Website design (due to increased online retailing) has received more attention as a way to influence consumer responses (Eroglu et al., 2001, 2003; Kim et al., 2009; Kim & Lennon, 2008; Yoo et al., 2010); however, the website design of multichannel retailers has not been examined from the perspective of the consistency of online store image with the brand image. This study examines the effect of brand image consistency (especially through the website) on consumer attitude and patronage intentions. The findings of this research will add to the growing body of literature on multi-channel retailing and provide practical information for online retailers in the development of a website for their online business.

Although the growth rates have slowed down from 25% per annum to less than 15% per annum during the recent economic recession, online retail sales continue to grow at a faster rate than offline retail sales. In the UK, online retail sales have been growing nearly 10 times faster than the total retail industry (Thompson, 2008). In 2010, U.S. online retail sales grew by 14.7% compared to 8.6% for total U.S. retail sales (Internet Retailer, 2011). About 75% of the U.S. consumers use the Internet for shopping (Internet World Stats, 2009). It is expected that consumers will continue to shift from offline to online purchases (Internet Retailer, 2011).

The impact of online retailing is not limited to online retail sales growth. Online retailing stimulates offline sales with the increased popularity of multichannel retailing. Many consumers research online and then purchase offline (DMNews, 2006). eMarketer (2008) estimated that web-influenced offline store sales totaled $471 billion in 2007 when comparable online sales were $136 billion. Further, web-influenced offline retail sales are expected to reach $1,124 billion by 2012 and represent a 19% increase over 2007. Today's consumers demand multichannel shopping experiences for the convenience, such as searching product information online, ordering a product online, and then picking up or returning the product in-store (eMarketer, 2006). In addition, contemporary shoppers enjoy social and experiential aspects of traditional store shopping while enjoying convenience of online shopping (Bagge, 2007).

The increased popularity of multichannel retailing has created a challenge for multichannel retailers to maintain a brand image built from brick-and-mortar stores that is compatible for their websites. Consumers have formed a specific brand image of a certain brand over the course of shopping experiences, and this brand image plays an influential role in consumer decisions to visit and patronize specific retailer websites (Kwon & Lennon, 2009). For seamless integration in multi-channel retailing, it is critical that retailers develop websites that create a consistent impression for their offline stores. Today's

*Assistant Professor, Department of Interior Design and Merchandising East Carolina University (yooj@ecu.edu)

Associate Professor, Merchandising Management Program Department of Design and Human Envoirnment Oregon State University (Minjeong.Kim@oregonstate.edu)

multichannel shoppers often research online and go to an offline store to purchase. Thus achieving consistency between online and offline in all aspects of retail operation is a key to successful multichannel business.

With the rapid growth of online retailing, the importance of website design has received more attention as a way to influence consumer responses (Eroglu *et al.*, 2001, 2003; Kim *et al.*, 2009; Kim & Lennon, 2008; Yoo *et al.*, 2010); however, the website design of multichannel retailers has not been examined from the perspective of the consistency of online store image with the brand image. Thus, the overall purpose of the study was to examine the effect of brand image consistency, especially through the website, on consumer attitude and patronage intentions. The findings of this research will add to the growing body of literature on multi-channel retailing and provide practical information for online retailers in the development of a website for their online business.

LITERATURE REVIEW AND CONCEPTUAL DEVELOPMENT

Brand Image

Brand image is defined as "the perceptions about a brand reflected as associations existing in the memory of the consumer" (Keller, 1993, p. 3). According to Keller, brand associations refer to information related to the brand stored in a consumer's memory. Brand associations can be divided into three different forms: attributes, benefits, and attitudes. Based on favorability, uniqueness, and strength of brand associations, consumers make different responses toward the brand.

Attributes are descriptive characteristics about a product or service. Product-related attributes indicate the physical composition or service requirements of a product that are necessary for consumers to perform the product or service. Therefore, product-related attributes are different based on the product or service. On the other hand, non-product-related attributes indicate external

characteristics of the product or service related to consumer consumption of the product or service. Thus, non-product-related attributes include information about price, product design or packaging, user imagery (i.e., consumer's knowledge about the brand users based on demographic or psychographic factors) and usage imagery (i.e., a consumer's knowledge about the usage of the product and service). Keller argued that price is an especially important attribute association since price is a main aspect to determine the value of a brand and consumers often categorize product knowledge based on the price ranges of different brands.

Benefits refer to the value an individual holds about a product or service attributes and consist of three categories: functional benefits, experiential benefits, and symbolic benefits (Keller, 1993). Functional benefits are basic advantages from the product or service consumption and related to physiological and safety needs (Maslow, 1970). Experimental benefits are the consumer feelings on using the product or service; therefore, experimental benefits satisfy consumers' sensory pleasure, variety, and cognitive stimulation. Symbolic benefits indicate an external value obtained from consuming the product and service. In other words, symbolic benefits are related to non-product-related attributes. For example, if a consumer gets social approval by consuming the product or service, then it implies that the consumer has achieved symbolic benefits. Therefore, symbolic benefits are associated with prestige, exclusivity, or fashionability from product or service consumption (Solomon, 1983).

Brand attitudes are the consumer's overall evaluations of a brand (Wilkie, 1986) and play a significant role in consumer behavior, such as brand choice (Keller, 1993). According to Fishbein and Ajzen (1975), brand attitudes are the consumer's strong beliefs about attributes and benefits the product or service has and evaluative judgment of the beliefs.

A brand association can be affected by other brand associations in memory; in addition, congruence of brand associations influence the consumer's recall of existing associations and the consumer's link between additional association and

brand in memory. Congruence is defined as "the extent to which a brand association shares content and meaning with another brand association" (Keller, 1993, p. 7). Consumers can more easily learn and remember information that is consistent with existing brand associations than unrelated information. In this regard, consistent information with other brand associations helps form a strong association and creates a cohesive brand image. Moreover, the cohesiveness of the brand image plays a significant role in a consumer's gestalt responses to the brand (Keller, 1993).

Store Image

Numerous researchers have studied store image in traditional retail stores and argued that consumers develop a store image based on merchandise attributes, service attributes, and store shopping atmosphere attributes (Mazursky & Jacoby, 1986; Yoo *et al.*, 1998). These three attributes allow consumers to evaluate the overall shopping quality and build an overall impression of the store: merchandise attributes include product quality, styling or fashion, and pricing, service attributes contain salesperson service, return policy, and delivery service, and retail store shopping atmosphere is associated with store's physical features, such as merchandise display and lighting.

However, Keaveney and Hunt (1992) noted that these three attributes are limited to subsets of the store image and cannot describe a gestalt view of the store image. In this regard, the store image is a broader concept than store attributes. Store image attributes consist of functional factors and psychological factors, and consumers can link (unconsciously or consciously) the factors to a shopping experience or a store (Mazursky & Jacoby, 1986; Yoo *et al.*, 1998). Therefore, store image can be defined as "the overall look of a store and the series of mental pictures and feelings it evokes within the consumer" (Yun & Good, 2007, p. 7).

Hu and Jasper (2006) studied store environment as a source of social meaning. The researchers noted that store displays, considered as one method of promotions, influence exciting shopping environments and store image; in addition, they found

evidence that visual information is more explicit in sending a message than other elements in a store, such as scent or music. Therefore, visual information (i.e., graphics) in stores leads to a more favorable store image that helps consumers perceive a high quality of merchandise and services. Similarly, Sen *et al.* (2002) found that window displays in retail stores provide overall store image. Consumers obtain different types of information from a window display that help form an impression about store. To create a favorable store image, researchers suggested that ambience such as lighting and design elements as well as merchandise display of store windows are important aspects that influence the consumer's intention to enter a store. Considering the fact that image creation is significantly affected by advertising (Meenaghan, 1995), window displays work as an advertisement to induce consumers to form an overall image of the store (Park *et al.*, 1986).

The main features affecting store atmosphere over the Internet is website attractiveness and how the website is presented in terms of products and services (Eroglu *et al.*, 2001). Compared to atmospheric cues in a traditional retail store categorized by Baker (1986) and Bitner (1992), online consumers cannot encounter social factors and some of the ambient factors such as smell and light. Thus, combination of ambient, social, and design factors of the traditional retail store are limited to a visual effect created via a computer screen. According to Lavie and Tractinsky (2004), the overall aesthetics of web pages are determined by visual elements. Yun and Good (2007) found consistent results that overall attractiveness influences the online shopping atmosphere and other consumer behavior, such as loyalty behaviors.

A window display in traditional retail stores plays an important role in creating and overall store image and consumer shopping decisions; in addition, an online home page may play a similar role. As Park *et al.* (1986) noted, a window display works as advertising and they induce consumers to retain an overall store image. Likewise, a home page of a website also has similar functions (Singh & Dalal, 1999). According to Singh and Dalal (1999), persuasion, one of the functions of an advertisement,

produces positive attitudes toward a brand and also creates favorable behavior toward the company. After learning information about the product, consumers may form positive impressions of an advertisement, positive attitudes toward the brand advertised, and positive attitudes toward the company producing the product. These attitudes affect a consumer's purchase of the advertised brand, consumer's loyalty, and consumer's feedback to the company.

In an online context, after browsing a home page, consumers may have positive impressions about an online store (website), positive attitudes toward the online store, and positive attitudes toward the brand. These favorable attitudes influence behaviors, such as revisiting the online store and buying a product; subsequently, as window display works as an advertisement and contributes to the overall store image, a home page of online websites that contains similar effects of advertising may help consumers create an overall online store image. Schenkamn and Jonsson (2000) tested the first impressions obtained from a home page, and visual aspects of home pages played a significant role. Park, *et al.* (2005) also noted that visual features on homepages have direct or indirect impact on impression formations.

Cognitive Dissonance Theory

Festinger (1957)'s cognitive dissonance theory has been used as a theoretical framework in research examining attitude change. Cognitive dissonance theory was defined as "the existence of dissonance, being psychologically uncomfortable, will motivate the person to try to reduce the dissonance and achieve consonance" (Festinger, 1957, p. 3). According to Aronson (1968), a dissonance is "a negative drive state which occurs whenever an individual simultaneously holds two cognitions (ideas, beliefs, opinions) which are psychologically inconsistent" (p. 6). Also, Balcetics and Dunning (2007) defined dissonance as a state of discomfort that drives a motivation to re-establish harmony by changing beliefs that control behaviors. In other words, the theory explains when an individual holds two cognitions which have an inconsistent relationship, inconsistency causes cognitive dissonance, a negative

intrapersonal state.

In order to confirm the motivational nature of the dissonance process, prior researchers demonstrated that the negative intrapersonal state could be decreased by dissonance reduction strategies. Festinger (1957) originally characterized dissonance as psychological discomfort; however, Brehm and Cohen (1962) recharacterized dissonance as a state of arousal, and most research that examined the nature of dissonance focused on dissonance as a state of arousal (Elliot & Devine, 1994). The dissonance researchers assumed that if people are in a state of arousal then it influences task performance in a similar way to other states of arousal. For example, dissonance as arousal helps simple task performance, whereas it weakens complex or difficult task performance (Pallak & Pittman, 1972). In addition, Elkin and Leippe (1986) provided evidence that the dissonance state is delineated as physiological arousal.

Cooper and Fazio (1984) combined both perspectives, dissonance as a state of arousal and dissonance as psychological discomfort in their study and concluded that dissonance arousal is an undifferentiated physiological arousal state that may be positive or negative. The dissonance arousal turns into psychological discomfort that causes attitude change if the negative arousal is internally attributed. Integral components of dissonance include both arousal and psychological discomfort; however, arousal stimulates the attributional interpretation, while psychological discomfort motivates the implementation of a dissonance reduction strategy.

However, Elliot and Devine (1994) argued that dissonance researchers have not clarified the nature of the dissonance precisely and have not proved that dissonance is assuaged by the implementation of a reduction strategy. Researchers suggested several reasons why psychological discomfort may be considered as dissonance by the investigation of the dissonance-reduction process based on previous research and Festinger's original identification of dissonance. The researchers focused on dissonance as psychological discomfort to investigate empirical evidence that the dissonance state is alleviated by a reduction strategy. The researchers conducted

experiments using three affective states, including discomfort, positive influence, and self-directed negative affect. Results revealed that people who freely agreed to compose a counterattitudinal essay showed greater levels of discomfort than people in the control group; in addition, dissonance induction did not influence positive affect and self-directed negative affect. Thus, cognitive dissonance is not an undifferentiated arousal state but an aversive feeling. The discomfort derived from people in an experimental group led to the implementation of a dissonance reduction strategy.

In a marketing context, Lindsey-Mullikin (2003) studied the effects of unexpected price on consumer attitudes to reduce the dissonance. According to the researcher, consumers tend to change their attitude by re-evaluating an unexpected price. Consumers tend to trivialize the value of money and shopping for savings. In addition, Gbadamosi (2009) found that when low-income consumers buy value-range brands, they tend to rationalize that price is not an indicator of quality. They also believe that the high price of a manufacturer's brand is due to expensive packaging and the brand name to reduce psychological discomfort.

This study used a holistic view of store/brand image as the total impression a store holds in consumers' mind. If consumers have a positive image toward a brand, they may expect the same positive image in an online context for the same brand. As many people create their initial store image at the window display (Sen *et al.*, 2002), if they access the online store, they may also create an overall website image. Consumers may experience cognitive dissonance and feel uncomfortable when there are discrepancies between an existing brand image and an online store image. Therefore, the following hypothesis was developed as predicted by cognitive dissonance theory.

H1. Brand image inconsistency (e.g., luxury brand image and casual online store image) will increase a consumer's psychological discomfort.

Aronson (1968) argued that when people experience cognitive dissonance, they try to reduce the dissonance and achieve consonance. Brehm and Cohen (1962) suggested several ways of to reduce

dissonance. First, people may achieve cognitive consonance by changing one of the cognitions. Second, people may reduce the dissonance by adding consonant cognitions to inconsistency, and the third method is to change the importance of the cognitions. The third method of the dissonance reduction strategy includes changing individual opinion, attitude, and behavior, and the behavioral change has been considered the most resistant to change.

To demonstrate how people reduce the dissonance, most previous researchers focused on an individual's attitude change after experiencing the cognitive dissonance. Individual cognition can become consistent with other cognitions by changing personal attitudes (Cooper & Fazio, 1984; Festinger, 1957; Scher & Cooper, 1989). Scher and Cooper (1989) explained that inconsistency between individual action and their attitude yields the aversive behavior that induces pressure for change in attitude toward personal arguments. Cooper and Fazio (1984)'s New Look model also provided the evidence that the feeling of discomfort motivates an attitude change. This study also used a brand attitude measure. If consumers perceive differences between their initial retail brand image and the online store image, then it may be shown by their brand attitude change as well as an uncomfortable feeling (dissonance).

H2. Psychological discomfort will increase negative attitude change.

Cognitive dissonance influences an individual's behavioral intention. Behavioral intention is "the degree of conscious effort a person will exert to perform a behavior" (Yun & Good, 2007, p. 9), and such intention has a strong impact on consumers' decisions such as store selection. According to Kunze (2000), cognitive dissonance elicits smokers' intention to use nicotine replacement therapy. Similarly, Van Der Rijt and Westerik (2004) investigated smokers' intention to undergo a smoking cessation treatment. The findings indicated that as smokers perceived a higher level of dissonance in regards their smoking behavior, they had a greater tendency to undergo a smoking cessation treatment than smokers perceived a lower level of dissonance. In the current study, cognitive dissonance from inconsis-
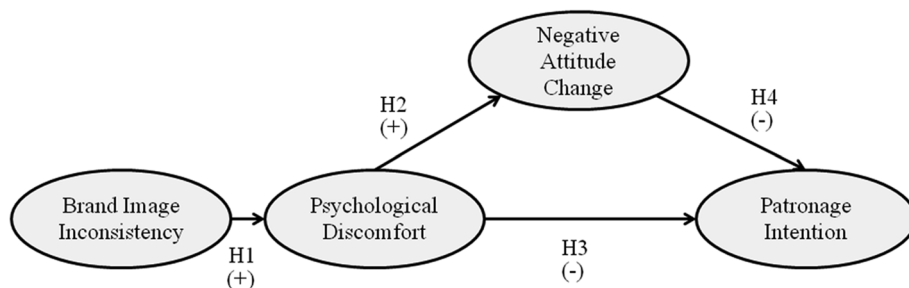
Figure 1. *The Model as Empirically Operationalized for this Study.*

tency between existing brand image and online store images influence consumers' patronage intention toward the brand.

H3. Psychological discomfort will decrease patronage intention.

According to the theory of reasoned action (Ajzen & Fishbein, 1980), explained by the intention of an individual to behave in a certain way. In addition, personal behavioral intention is determined by the individual's attitude and subjective norm (i.e., desirability of the behaviors) and indicates that there is a positive relationship between attitude and behavioral intention. Therefore, the theory explains that consumers' brand attitudes positively affect behavioral intention, such as patronage intention. Since this study measured how consumers' brand attitudes changed after they were exposed to an inconsistent online store image, it may be reasonable to investigate the effect of attitudes on behavioral intention, such as consumers' patronage intention. Thus, the following hypothesis was developed.

H4. Negative attitude change will decrease patronage intention.

Based on the theoretical framework and the literature reviewed, the following conceptual model was developed.

METHOD

Experimental Design and Stimulus Development

This study used a 2×2 between-subjects factorial design: existing brand image (luxury image versus casual image) by online store image (luxury image versus casual image). "Ralph Lauren" (RL) (a retail brand with a luxury image) and "L.L. Bean" (LLB) (a retail brand with a casual image) were selected for the study because both have strong brand names among U.S. consumers. In order to create brand image inconsistency through the websites, it was important to use brands that have a strong presence and distinctive images among U.S. college students. For a luxury image, the RL website had a high image contents and minimal texts, whereas the LLB website contained a large amount of texts on its website for the casual image. Four types of mock websites were created for the study using Adobe Photoshop (See Figure 2). The two consistency conditions were created through the original website of each brand. The two inconsistency conditions were created by changing a mock website to a different brand website (e.g., RL brand on the LLB website and vice versa).

Instrument Development

All items were adopted from existing literature with adequate reliabilities and used a 7-point scale for consistency. The first section of the instrument measured brand attitude. These items have been successfully employed in a number of previous brand attitude studies (Holbrook & Batra, 1987; Mackenzie & Lutz, 1989), and reliabilities of the scale ranged from .85 to .98. For the measure of psychological discomfort, three semantic differential items were adopted from Elliot and Devine (1994) (Cronbach's alpha >.80). Higher scores indicate a higher degree of uncomfortable feeling. In addition, three Likert-type items developed by Grewal *et al.* (2003) were adopted to measure patronage intention (Cronbach's alpha=.88). Demographic information including age, ethnicity, and major were collected
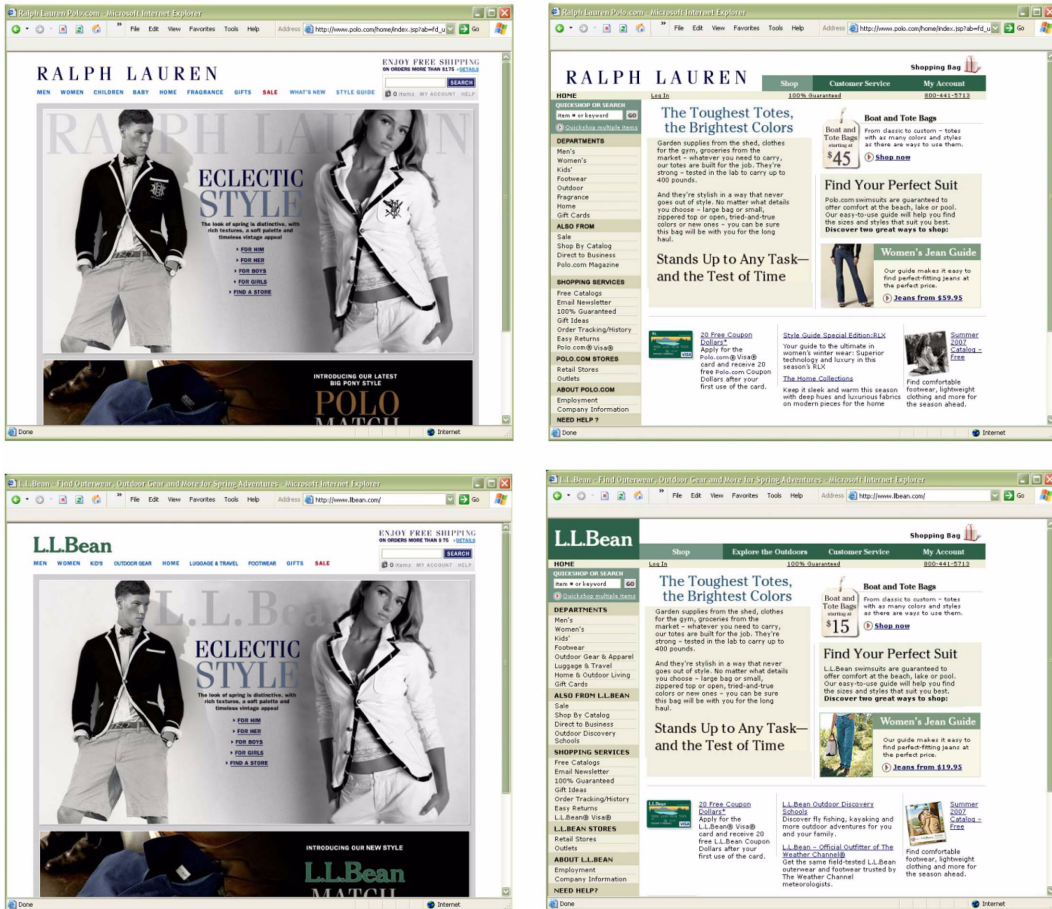
Figure 2. *Four Mock Websites.*

from the participants at the end of the questionnaire and the online shopping and browsing experience were assessed. In addition, a manipulation check was performed to determine if the manipulation of brand image consistency was effective.

Procedure and Participants

Data were collected from a convenience sample of female college students from a large U.S. university. This group was likely to be potential Internet shoppers (Lee & Johnson, 2002). Invitation emails were sent to 120 prospective participants and included URL links to the research website. Participants first rated brand attitudes toward "RL" or "LLB" to measure their existing brand image toward the brands. After that, the participants were asked to browse a mock home page of "RL" or "LLB" on the premise that they were shopping on a real

Internet website for apparel. After browsing the mock websites, the participants were asked to complete questions that measures brand attitudes, psychological discomfort, patronage intention, and demographic information.

RESULTS

Sample Characteristics

Of the 120 invitation emails, 103 female students participated in the online experiment. The mean age was 22 years, with a range of 20 to 27. Caucasian ethnicity was predominant (82.1%), followed by Asian (13.4%), African (1.8%) and Hispanic (1.8%). Overall, participants used the Internet very frequently (88.4%) and browsed online frequently (90.1%). However, compared to the percentage of who used

Table 1. *Regression Analyses*

Variable	β	SE	std. β	p
H2: Psychological Discomfort on Negative Attitude Change: F=(1, 101)=34.47 *** Adj. R^2= .25				
(constant)	-1.021	.215		.000***
Psychological Discomfort	.41	.069	.504	.000***
H3: Psychological Discomfort On Patronage Intention: F (1, 101)=17.70***, Adj. R^2=.14				
(Constant)	4.73	.311		.000***
Psychological Discomfort	-.42	.100	-.386	.000***
H4: Negative Attitude Change on Patronage Intention: F (1, 101)=12.68**, Adj. R^2=.10				
(Constant)	3.63	.163		.000***
Negative Attitude Change	-.45	.127	-.33	.001**

Note: * p<.05, **p<.01, ***p<.001

the Internet and browsed the Internet, the percentage of online purchasing was low. Only 37.5% of participants had purchased apparel online frequently.

Manipulation Check

A manipulation check was performed to determine if the manipulation of a brand image consistency was effective. ANOVAs showed that brand images of "RL" and "LLB" were significantly different [F (1, 109)=45.16, p<.001]. As expected, brand image of "RL" (M=5.69, SD=1.21) was more a luxury than brand image of "LLB" (M=4.00, SD=1.41). In addition, the website image of "RL" was significantly more luxury than the website image of "LLB" [F (1, 110)=30.55, p<.001] (M=5.37, SD=1.28 versus M= 3.95, SD=1.45). The manipulation of brand image consistency / inconsistency was also found to be successful [F (1, 110)=14.32, p<.001]. For the condition 1 (RL+ RL home page) and 4 (LLB+LLB home page), participants rated the images as consistent (M=4.63, SD=1.42), whereas participants in the condition 2 (RL+ LLB home page) and 3 (LLB+RL home page) rated the images as inconsistent (M=3.55, SD=1.57).

Preliminary Analysis

Exploratory factor analysis using maximum likelihood estimation was conducted to assess the dimensionality of the scales. A minimum eigenvalue of 1.0 was used as a criterion to control the number of factors extracted. The results revealed that multiple items within each scale comprised a one-factor dimension. To assess internal consistency of scale, Cronbach's alpha was calculated for each scale and found as reliable (>.93). Based on the results scores were averaged to a single score for each dependent variable.

Hypotheses Testing

Hypotheses 1was tested using analysis of variance. There was a significant interaction effect between the original brand image and online store image on psychological discomfort [F (1, 99)=7.71, p<.01, Eta^2=.07]. A simple effects test was used to analyze each level of the original brand image. The effect of the online store image on psychological discomfort was significant for the luxury [F=(1, 99)=35.2, p<.001] and casual [F=(1, 99)=4.45, p<.05] original brand images. For a luxury brand (RL), participants experienced greater discomfort when they were exposed to a casual online home page (inconsistent group) (M=4.14, SD=1.33) than when they were exposed to a luxury online home page (consistent group) (M=1.89, SD=1.28). However, contrary to the prediction, for a casual brand, participants experienced greater discomfort when they were exposed to the casual online home page (consistent group) (M= 2.66, SD=1.52) than a luxury online homepage (inconsistent group) (M=1.88, SD=1.21). Therefore, Hypothesis 1 was only partially supported.

For Hypotheses 2, 3, and 4, simple regression

analyses were performed. First, attitude change was calculated by subtracting post-attitude (attitude after being exposed to an online homepage) from pre-attitude (attitude before being exposed to an online homepage), and attitude change scores were used for all analyses. Therefore, higher scores indicate more negative attitude change. The results showed a positive relationship between psychological discomfort and negative attitude change [F (1, 101)=34.47, β=.41, p<.001, Adj. R^2=.25], a negative relationship between psychological discomfort and patronage intention [F (1, 101)=17.70, β=-.42, p<.001, Adj. R^2=.14], and a negative relationship between attitude change and patronage intention [F (1, 101)=12.68, β=-.45, p<.01, Adj. R^2=.10] (See Table 1). The positive regression coefficient, β=.41 means that participants who felt more uncomfortable are likely to change brand attitudes more negatively than participants who felt less uncomfortable; in addition, the negative regression coefficients β=-.42 and β=-.45 indicate that participants who experienced less discomfort and experienced less negative attitude had greater patronage intention. Therefore, Hypothesis 2, Hypothesis 3, and Hypothesis 4 were supported.

CONCLUSIONS AND DISCUSSION

This study examined how the inconsistencies between an existing retail brand image and online store image influence consumer responses from the cognitive dissonance perspective. Hypothesis 1 (that examined the effect of inconsistent images on cognitive dissonance) was partially supported. This revealed that inconsistent images increased cognitive dissonance only for a brand with a luxury image and supported the theory of cognitive dissonance (Festinger, 1957). Consumers experienced psychological discomfort when a casual image was presented on a luxury brand website.

However, the inconsistency between an existing brand image and an online store image did not cause cognitive dissonance for a brand with casual image. Surprisingly, participants experienced less discomfort when a luxury image was presented on a casual

brand website. This suggests that luxury images for online homepage are generally more effective to create consumers' positive responses regardless of brand images; this finding is consistent with prior research (Yoo, Kim, & Burns, 2010). Perhaps similar to advertising, a home page that presents more visual images rather than verbal texts can more effectively appeal to the emotions of consumers (Holmes & Crocker, 1987; Singh & Dalal, 1999). In this study, a luxury homepage contained more images than texts and luxury images using visuals generated positive affective responses even if an existing brand image is casual.

Regression analyses showed that psychological discomfort evoked by brand image inconsistency affected negative attitude change and depressed patronage intention with an online store. These findings were consistent with previous studies (Cooper & Fazio, 1984; Festinger, 1957; Scher & Cooper, 1989). The current study found that people who experienced psychological discomfort after they browsed an online store developed more negative attitudes toward the original brand than the attitudes they held before they browsed the online store. Furthermore, people who experienced greater psychological discomfort due to brand image inconsistency exhibited lower patronage intention toward an online store. This finding is consistent with cognitive dissonance research in other contexts (Kunze, 2000; Van Der Rijt & Westerik, 2004). Prior research generally supports that consumers' emotions and moods are critical factors that influence shopping behaviors (Donovan & Rossiter, 1982; Gardner, 1985; Park *et al.*, 2005). Gardner (1985) demonstrated that consumers' emotion-related factors are significantly important for consumer attitude formation and brand selection. Consumers' affective states, such as pleasure and positive moods induced from the environmental stimuli are positively related to consumers' purchase intention (Donovan & Rossiter, 1982; Park *et al.*, 2005). Psychological discomfort in this study may be a considered negative emotion or a mood people experience due to brand image inconsistency that adversely affect consumers' behavioral intentions.

This study further showed that negative attitude

change influenced patronage intention and supported the theory of reasoned action. People who experienced a negative attitude due to brand image inconsistency had lower patronage intention. This finding is consistent with prior attitude research (Ajzen & Fishbein, 1980; Holbrook & Batra, 1987; Mackenzie & Lutz, 1989).

IMPLICATIONS

This study focused on consistency between existing brand image and online store image that was conveyed from a home page of apparel websites. The findings contribute to knowledge about apparel website design. A home page of a retail brand website was used to test online store image, and the results showed that an online home page is important for online shoppers to create a store image that can influence consumers' patronage intentions toward the brand. Inconsistency due to a casual home page elicited psychological discomfort for brands with a luxury image; however, inconsistency derived from a luxury online store image with a casual brand increased the positive feelings of consumers that influenced positive attitudes and patronage intentions toward the brand. The theory of cognitive dissonance was supported in that psychological discomfort induced attitude changes and reduced patronage intentions.

This study provides several practical implications. The results suggest that retailers should create at least the same degree of (or a better store image) on their home pages than their original brand image to generate desirable consumer responses. In addition, it appears to indicate that visually oriented home pageswebsites have a persuasive function and appeal to consumers' emotional states. Creating a visually oriented home page might be especially an effective strategy to attract consumers who are less involved in a shopping situation or a product because those less involved are more likely to be influenced by peripheral cues such as a home page design (Holmes & Crocker, 1987).

Even though this study categorized brand images into luxury and casual, the results can be applied to general positive and negative brand images. Construction of a positive image for a brand and the presentation of a consistent or more positive online store images are critical for consumers' attitudes toward the brand and their patronage intentions. In addition, retailers can improve their images through online websites if the existing brand image for a consumer is neutral or negative.

Online sales have increased substantially, but increase of offline sales influenced by online store has been also significant (eMarketer, 2008). Consumers learn product information from an online store and purchase the product in offline store, the significant effects of psychological discomfort derived from online store on consumers' negative attitude and patronage intention toward the brand are more critical for retailers. Online home page can influence online sales as well as on offline sales.

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

An online experiment was conducted for this study. Hantula (2005) stated an advantage of online experiments that online experiments can blur the distinction between an experimental situation and reality. In addition, online experiments are not as artificial as laboratory experiments are. Despite these advantages, participants might not perceive the task as a real shopping situation. Especially, this study used a single web page to measure an online store image, and study subjects were not allowed to view other web pages. This could cause participants to think that the websites were not real. Another limitation from the single web page is that it was too short to for participants to create an online store image. Even though very short advertisements in televisions help consumers to create a brand image, they have been usually exposed to the same advertisements several times (Meenaghan, 1995). In addition, the browsing time of a single web page on the experiment is significantly shorter than usual length of advertisements on television.

This study used a convenient sample from a U.S. university, and female students were selected from

an undergraduate program. According to Lee and Johnson (2002), people from 20 to 30 years of age were potential online shoppers. However, 90% of participants were under age 24 and this group may not be generalized to the potential online shoppers. This study contributes to e-retailers targeting young customers; however, broader range of sample will be needed for future study.

REFERENCES

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior.* Englewood Cliffs, NJ: Prentice-Hall, Inc.

Aronson, E. (1968). Dissonance theory: Progress and problems. In R. P. Abelson, E. Aronson, W. J. McGuire, T. M. Newcomb, M. J. Rosenberg, & P. H. Tannenbaum (Eds). *Theories of cognitive consistency: A sourcebook* (pp. 5-27). Chicago, IL: Rand McNally.

Baker (1986). *The role of environment in marketing services: The consumer perspective.* In J. A. Czpeil, C. Congram, & Shanaham (Eds.), The services marketing challenge: Integrated for competitive advantage (pp. 79-84). Chicago, IL: American Marketing Association.

Bagge, D. (2007). Multi-channel retailing: The route to customer focus. *European Retail Digest, 53*, 57-70.

Balcetics, E., & Dunning, D. (2007). Cognitive dissonance and the perception of natural environments. *Psychological Science, 18*(10), 917-921.

Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing, 56*, 57-71.

Brehm, J. W., & Cohen, A. R. (1962). *Explorations in cognitive dissonance.* New York, NY: Wiley.

Cooper, J., & Fazio, R. (1984). A new look at dissonance theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 17, pp. 229-266). San Diego, CA: Academic Press.

DMNews (2006). *Forrester: E-commerce sales in multi-channel world surged 22% to $172B in 2005.* Retrieved from http://www.dmnews.com/forrester-e-commerce-sales-in-multichannel-world-surged-22-to-172b-in-2005 /article/89969/.

Donovan, R. J., & Rossiter, J. R. (1982). Store atmosphere: An environmental psychology approach. *Journal of Retailing, 58*, 34-57.

Elkin, R., & Leippe, M. (1986). Physiological arousal, dissonance, and attitude change: Evidence for a dissonance-arousal link and a "don't remind me" effect. *Journal of Personality and Social Psychology, 51*, 55-56.

Elliot, A. J., & Devine, P. G. (1994). On the motivational nature of cognitive dissonance: Dissonance as psychological discomfort. *Journal of Personality and Social Psychology, 67*(3), 382-394.

eMarketer (2006), *Multi-channel shopping: The rise of the retail chains.* Retrieved October 1, 2011 from http://www.emarketer.com/Report.aspx?code=multichannel_mar06

eMarketer (2008). *Milti-channel retailing.* Retrieved October 1, 2011 from http://www.emarketer.com/Report.aspx?code=emarketer_2000476

Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2001). Atmospheric qualities of online retailing: A conceptual model and implications. *Journal of Business Research, 54*, 177-184.

Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2003). Empirical testing of a model of online store atmospherics and shopper responses. *Psychology & Marketing, 20*(2), 139-150.

Festinger, L. (1957). *A theory of cognitive dissonance.* Stanford, CA: Stanford University Press.

Fishbein, M., & Ajzen, L. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research.* Reading, MA: Addison-Wesley.

Gardner, M. P. (1985). Mood states and consumer behavior: A critical review. *The Journal of Consumer Research, 12*, 281-300.

Gbadamosi, A. (2009). Cognitive dissonance: The implicit explication in low-income consumers' shopping behavior for "low-involvement" grocery products. *International Journal of Retail & Distribution Management, 37*(2), 1077-1095.

Grewal, D., Baker, J., Levy, M., & Voss, G. B. (2003). The effects of wait expectations and store atmosphere evaluations on patronage intentions in ser-

vice-intensive retail stores. *Journal of Retailing, 79,* 259-268.

Hantula, D. A. (2005). Guest editorial: Experiments in e-commerce. *Psychology & Marketing, 22*(2), 103-107.

Holbrook, M. B., & Bartra, R. (1987). Assessing the role of emotions as mediators of consumer responses to advertising. *Journal of Consumer Research, 14*(3), 404-421.

Holmes, J. H., & Crocker, K. E. (1987). Predispositions and the comparative effectiveness of rational, emotional and discrepant appeals for both high involvement and low involvement products. *Journal of Academy of Marketing Science, 15*(1), 27-35.

Hu, H., & Jasper, C. R. (2006). Social cues in the store environment and their impact on store image. *International Journal of Retail & Distribution Management, 34*(1), 25-48.

Internet Retailer (2011). *Top 500 guide.* Chicago, IL: Vertical Web Media LLC.

Internet World Stats (2009). *Internet usage and population in North America*, Retrieved October 1, 2011 from http://www.internetworldstats.com/ stats14.htm

Keaveney, S. M., & Hunt, K. A. (1992). Conceptualization and operationalization of retail store image: A case of rival middle-level theories. *Journal of the Academy of Marketing Science, 20*(2), 165-176.

Keller, L. K. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing, 57*, 1-22.

Kim, J. H., Kim, M., & Lennon, S. J. (2009). Effects of website atmospherics on consumer responses: Music and product presentation. *Direct Marketing: An International Journal, 3*(1), 4-19.

Kim, M., & Lennon, S. J. (2008). The effects of visual and verbal information on attitudes and purchase intentions in Internet shopping. *Psychology & Marketing, 25*, 146-178.

Kwon, W., & Lennon, S. J. (2009). What induces online loyalty? Online versus offline brand images. *Journal of Business Research, 62*, 557-564.

Kunze, M. (2000). Maximizing help for dissonant smokers. *Addiction, 95*, 13-18.

Lavie, T., & Tractinsky, N. (2004). Assessing dimensions of perceived visual aesthetics of web sites. *International Journal of Human-Computer Studies, 60,* 269-298.

Lee, M. Y., & Johnson, K. K. P. (2002). Exploring differences between Internet apparel purchasers, browsers and non-purchasers. *Journal of Fashion Marketing and Management, 6*(2), 146-157.

Lindsey-Mullikin, J. (2003). *Beyond reference pricing: Understanding consumers' encounters with unexpected prices. Journal of Product & Brand Management, 12*(3), 140-153.

Mackenzie, S. B., & Lutz, R. J. (1989). An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *Journal of Marketing, 53*(2), 48-66.

Maslow, A. H. (1970). *Motivation and Personality,* New York, NY; Harper & Row Publishers, Inc.

Mazursky, D., & Jacoby, J. (1986). Exploring the development of store images. *Journal of Retailing, 62*(2), 145-165.

Meenaghan, T. (1995). The role of advertising in brand image development. *Journal of Product & Brand Management, 4*(4), 23-34.

Pallak, M., & Pittman, T. (1972). General motivational effects of dissonance arousal. *Journal of Personality and Social Psychology, 21*, 349-358.

Park, S., Choi, D., & Kim, J. (2005). Visualizing e-brand personality: Exploratory studies on visual attributes and e-brand personalities in Korea. *International Journal of Human-Computer Interaction, 19*(1), 7-34.

Park, C. W., Jaworski, B. J., & Macinnis, D. J. (1986). Strategic brand concept-image management. *Journal of Marketing, 50*(4), 135-145.

Park, J., Lennon, S. J., & Stoel, L. (2005). Online product presentation: Effects on mood, perceived risk, and purchase intention. *Psychology & Marketing, 22*(9), 695-719.

Schenkamn, B. N., & Jonsson, F. U. (2000). Aesthetics and preferences of web pages. *Behavior and Information Technology, 19*(5), 367-377.

Scher, S. J., & Cooper, J. (1989). Motivational basis of dissonance: The singular role or behavioral conse-

quences. *Journal of Personality and Social Psychology, 56*(6), 899-906.

Singh, S. N., & Dalal, N. P. (1999) Web home pages as advertisements. *Communication of the ACM, 42*(8), 91-98.

Solomon, M. R. (1983). The role of products as social stimuli: A symbolic interactionism perspective. *Journal of Consumer Research, 10*(December), 319-329.

Sen, S., Block, L. G., & Chandran, S. (2002). Window displays and consumer shopping decisions. *Journal of Retailing and Consumer Services, 9*, 277-290.

Thompson, J. (2008, June 4). *What slowdown? Brit shoppers hit the web, Business Week*, Retrieved October 18, 2009, from http://www.businessweek.com/global-biz/content/jun2008/gb2008064 _694470.htm?campaign_id=rss_daily

Van Der Rijt, G. A. J., & Westerik, H. (2004). Social and cognitive factors contributing to the intention to undergo a smoking cessation treatment. *Addictive Behaviors, 29*, 191-198.

Wilkie, W. (1986). *Consumer behavior*. New York, NY: John Wiley & Sons, Inc.

Women's Wear Daily (2007). *Apparel Now No. 1 Online*. Retrieved January 25, 2008 from: http://www. wwd.com /not available/dotcom?target=/related/article/115743&articleId=115743&articleType=A &industry Kw=related&industryKw2=relatedarticle.

Yoo, C., Park, J., & Maclnnis, D. J. (1998). Effects of store characteristics and in-store emotional experiences on store attitudes. *Journal of Business Research, 42*, 253-263.

Yoo, J., Kim, M., & Burns, L. (2010, June). *The effects of online product presentation on consumer responses: Mental imagery perspective*. Paper presented at American Collegiate Retailing Association, Orlando, FL.

Yoo, J., Kim, M., & Burns, L. (2010, November). *The effects of home page design on consumer responses: A moderating role of brand familiarity and centrality of visual product aesthetics*. Paper presented at International Textile and Apparel Association, Montreal, Canada.

Yun, Z-S, & Good, L. K. (2007). Developing customer loyalty from e-tail store image attributes. *Managing Service Quality, 17*(1), 4-22.