

Effects of the Centrality of Visual Product Aesthetics and Aesthetic Experiences on Impulse Buying Behavior for Fashion Products

Hanna Kim[†]

Dept. of Clothing & Textiles, Chungnam National University

Received September 1, 2010; Revised October 8, 2010; Accepted November 26, 2010

Abstract

This study is to understand fashion product aesthetics by exploring the antecedents of aesthetic experiences and the influence of aesthetic experiences on impulse buying behavior. A total of 520 usable questionnaires were obtained through an internet survey. A structural equation model using a correlation matrix with maximum likelihood was estimated by using AMOS 18.0 to examine the relationships among aesthetic value, aesthetic acumen, affective experience, cognitive experience, and impulse buying behavior. The results showed that aesthetic value and acumen had a significant effect on the cognition of aesthetic experiences and that aesthetic experiences had a significant effect on impulse buying behavior. These results highlight the powerful motivational force behind fashion product aesthetics. The key implications for research and management are discussed further.

Key words: Aesthetic value, Aesthetic acumen, Affective experience, Cognitive experience, Impulse buying behavior

I. Introduction

In today's marketplace, it has become virtually impossible to ignore the importance of a visually appealing design for a product's success. Visual aesthetics allow consumers to differentiate between competing products (Bloch, 1995; Dumaine, 1991). They convey symbolic meaning (Bloch, 1995; Charters, 2006), and help build relationships between marketers and potential buyers (Bloch et al., 2003). It is therefore not surprising that aesthetically pleasing product design has been linked to companies' achievement of competitive advantage (e.g., Hammer, 1995; Kotler & Rath, 1984) and financial success (e.g., Holbrook, 1986; Bloch, 1995). This is based on the notion that although products are not primarily designed for aesthetic appreciation, they do possess aesthetic qualities that represent a "particularly intriguing aspect of

the consumption experience" (Holbrook, 1986) and that can influence consumers' preference judgments and choice (Charters, 2006; Ritterfeld, 2002). Research has shown that among product alternatives that are similar in terms of function and price, consumers will tend to choose the product perceived to be the most aesthetically pleasing (Creusen & Schoormans, 2005). Moreover, despite the utilitarian nature of products, visual appeal may sometimes even be preferred over product functionality (e.g., Creusen & Schoormans, 2005) and may become the focus of the consumption experience. The aesthetic qualities of fashion products such as design, color, and texture are of especially critical importance to consumers' choice. In particular, Rook (1987) indicated that impulse buying often involves aesthetic or styling products and stimulus characteristics may produce this impulse buying (Bloch et al., 2003).

However, despite the centrality of product design and aesthetics to the marketing discipline (Bloch, 1995) and the increasing awareness about the influ-

[†]Corresponding author
E-mail: hanna@cnu.ac.kr

ence of aesthetic qualities on consumer preferences (Veryzer & Hutchinson, 1998), research on consumers' responses to product design has been relatively limited. Furthermore, an integrative conceptual framework for the study of product aesthetics has not yet been established (Bloch, 1995), and this has greatly hindered the systematic understanding of consumers' experiences and response to product design (Veryzer, 1993). Although many scholars of consumer behavior have dealt with the scope of consumer aesthetics and centrality of visual product aesthetics, no research has provided insights into how general product aesthetics could be applied to fashion product aesthetics.

This study aims to contribute to a better understanding of fashion product aesthetics by exploring the antecedents of aesthetic experiences and the influence of aesthetic experiences on impulse buying behavior. In doing so, the present study shows the powerful motivational force behind fashion product aesthetics and allows us to better understand which fashion designs influence consumers' impulse buying tendency.

In summary, this study has three objectives: (1) to develop and empirically test a comprehensive framework that incorporates both the antecedents of aesthetic experiences and the influence of aesthetic experiences on impulse buying behavior for fashion products; (2) to verify what value- and acumen-related factors of the centrality of product design lead to affect and cognition in aesthetic experiences; and (3) to determine the extent to which aesthetic experiences influence consumers' impulse buying behavior for fashion products.

II. Literature Review

1. Visual Product Aesthetics

Unlike works of art, which mainly serve aesthetic purposes, most products used in everyday consumption are not primarily designed for aesthetic appreciation. Yet, it cannot be denied that most of the objects we surround ourselves with possess at least some kind of aesthetic qualities (Charters, 2006; Ritterfeld, 2002) and that such qualities can significantly influence consumers' preference judgments and choice

(Bloch et al., 2003; Charters, 2006).

It can be argued that people perceive products differently from abstract or purely artistic objects, and thus the results obtained from studies employing either artificial or art-related stimuli may not be applicable to the context of consumer behavior. The difference between aesthetic judgments of random stimuli and those elicited by real products stems from the fact that products are not "objects of coincidence," for they are designed, purchased, and used with a particular purpose in mind (Demset, 2003). As such, the extent to which a product is perceived as aesthetically pleasing may depend on the particular function it performs, as well as on its symbolic associations (Creusen & Schoormans, 2005). How fashion styles are perceived is influenced by sensory information that is dependent on aesthetic rules (e.g., balance, scale, and unity) and on social and cultural rules (Kaiser, 1997).

According to Workman and Caldwell (2007), the coded sensory system of clothing is created mainly through visual manipulation. Visual product aesthetics are defined as characteristics that create clothing's appearance; they serve as the base not only for inferences about other sensory characteristics of clothing, but also for inferences about the wearer's traits. Therefore, highly visual consumers may weigh aesthetic elements higher than less visual consumers do when they purchase fashion products (Workman & Caldwell, 2007), and consumers differ in sensitivity to visual product aesthetics.

Many scholars have attempted to develop scales to measure visual aesthetic sensitivity. Two measures that have good properties are the Test of Aesthetic Judgment Ability (Bamossy et al., 1985) and the Centrality of Visual Product Aesthetics scale or CVPA (Bloch et al., 2003). The latter was developed in the field of consumer research, and it is oriented toward product design and consumer behaviors. CVPA includes three different dimensions: value, acumen, and responses. Bloch et al. (2003) define aesthetic value as the perceived value of visual product aesthetics and aesthetic acumen as an ability to recognize and evaluate product designs. Aesthetic responses reflect behavioral responses to product designs such as touch-

ing and purchase.

2. Affect and Cognition in Aesthetic Experiences

Holbrook and Zirlin (1985) define affective experience as a deeply felt emotion that is enjoyed purely for aesthetic own sake and cognitive experience is defined as product-related beliefs or judgments (Bloch, 1995). Although the field of consumer psychology seems to lack a widely accepted definition of aesthetics (Charters, 2006; Veryzer, 1993), it is generally recognized that the concept reflects experienced affect or pleasure from the sensory characteristics of a product (Veryzer, 1993). These characteristics are enjoyed for their own sake, regardless of any utilitarian considerations (Holbrook & Zirlin, 1985). Nevertheless, it can be argued that aesthetic experiences are not entirely emotional in nature (Charters, 2006; Holbrook & Zirlin, 1985).

Aesthetic experiences often involve elements of identification, evaluation, and comparison of the stimulus to a body of knowledge already attained and classified by the viewer (Harris, 1996), hence the term "aesthetic judgments," which is often used as a synonym for aesthetic responses. One can argue that there is no "aesthetic emotion per se" (Harris, 1996), since aesthetic responses often include a cognitive dimension (Bloch, 1995), and thus they represent a harmonious blend of both feelings and reasoning. The important role of cognition in aesthetic experiences is best illustrated by the finding that the meaningfulness of a stimulus (i.e., the degree to which it makes sense to the viewer) represents one of the strongest determinants of aesthetic response (Martindale et al., 1990). Meaningfulness has also been suggested to impact aesthetic preferences in product design (Coates, 2003).

Nevertheless, certain aesthetic responses may occur in the absence of cognition. Products with aesthetically pleasing designs produce very strong emotional reactions among consumers (Bloch, 1995). This result corresponds to the traditional view held by philosophy and empirical aesthetics, according to which beauty represents a pleasurable subjective experience not mediated by reasoning (Reber et al., 2004).

Research has shown that the very first aesthetic impressions are affective and are formed almost instantaneously at a low level that precedes cognitive processes (Pham et al., 2001). According to Norman's (2004) three-level theory of human behavior, this low level corresponds to the visceral level, which is purely perceptual and subconscious in nature. The visceral level gives rise to immediate judgments, which occur before the brain has had any time to evaluate the stimulus cognitively (Lindgaard, 2007). As such, aesthetic responses formed at this level correspond to a biologically determined affect (Zajonc, 1980), which can influence subsequent stimulus evaluations given that our thoughts normally draw on the initial information transmitted by our affective system (Tractinsky, 2004).

Evidence for the immediate impact of affect on aesthetic responses is provided by an electromyography (EMG) study conducted by Winkielman and Cacioppo (2002). It suggests that the affective reaction associated with the fluent processing of an attractive stimulus occurs in the brain within the first three seconds after stimulus presentation and several seconds before any explicit judgments of preference are made. This indicates that the affective response to an aesthetically pleasing object can occur almost instantaneously and can precede cognitive evaluations.

Accordingly, Pol et al. (2010) have developed the A.I.R. (Aesthetics-Induced Responses) measurement, which is a multi-dimensional mechanism. Its dimensions are as follows: a visceral dimension, an affective dimension, and a cognitive dimension. On a visceral dimension, beautiful products elicit in viewers an immediate and powerful desire to be in close vicinity to the attractive object; aesthetics embody lust, which calls for instant sensory gratification. On an affective dimension, appealing products draw us in and touch our hearts. One look at a beautiful object and, as from looking at an attractive person, people can feel infatuated. Finally, on a cognitive dimension, possessing beautiful products holds the promise of making us more attractive and socially desirable.

Perceptions of product design such as aesthetic value and acumen can lead to strong positive emotion and the emotion drives from the design and sensory prop-

erties of the product (Bloch, 1995). In the context of fashion, visual product aesthetics can serve as the base not only for inferences about other sensory characteristics of products, but also for inferences about the wearer (Workman & Caldwell, 2007). Therefore, visual aesthetics including aesthetic value and acumen also have a symbolic function that can influence cognitive evaluation (Fig. 1). Accordingly, I posit the following hypotheses:

H1: Aesthetic value positively influences (a) affect and (b) cognition in aesthetic experiences.

H2: Aesthetic acumen positively influences (a) affect and (b) cognition in aesthetic experiences.

3. Impulse Buying Behavior

Impulse buying is defined as a hedonically complex buying behavior that occurs when consumers feel an urge to buy something immediately (Rook, 1987). Researchers seem to agree that impulse buying is concerned with a hedonic or affective component (Piron, 1991; Rook & Fisher, 1995).

Research has shown that positive affective responses brought about by a product's aesthetic appeal can cause consumers to engage in a variety of approach activities, which indicate a desire to experience the product's pleasing appearance at a deeper level than what is accessible at first glance (Bloch, 1995). The most basic approach behaviors are physical and consist of the extended use of one or several senses, such as viewing, listening to, touching, or smelling the product (Bloch, 1995; Csikszentmihalyi & Robinson, 1990).

In a more elaborate form, approach responses involve seeking information about a product or making the effort to visit a retailer carrying the product. A typical example is the response of window shoppers who turn into store visitors for no other reason than to experience an attractive item more closely (Bloch, 1995). In the same vein, Bayley and Nancarrow (1998) suggested that impulsive buying behaviors might be a transient and dysfunctional captivation with an aesthetic aspect of a product.

However, impulse buying is quite complex because it stems from the desire to satisfy multiple needs (Hausman, 2000). On the basis of Stern's study (1962), Han et al. (1991) classified four different types of impulse buying that can be categorized by the amount of affect and cognition when consumers make their buying decisions. According to Rook and Hoch (1985), planned impulse buying occurs when consumers do not plan to purchase items in advance but make the decision while looking around in the store. Reminded impulse buying refers to an outcome of remembering a previous decision or experience which cause on-the-spot impulse buying. Fashion-oriented impulse buying occurs when consumers aware the newness or fashionability of an innovative design or style of apparel products. According to Park and Kim (2008), positive emotion plays an important role in encouraging planned impulse buying, reminded impulse buying and fashion-oriented impulse buying, supporting previous findings that positive affect was a significant mediator in increasing impulse buying during the shopping (Beatty & Ferrell, 1998). Also, Ko (1993) suggested that impulse buying of apparel products may

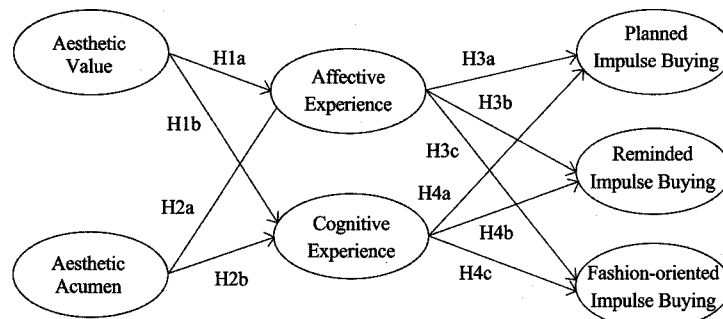


Fig. 1. Research model.

be a reasonable unplanned behavior when it is related not only to emotional preferences but also to objective evaluations (Fig. 1). Thus, I propose that:

H3: Affect in aesthetic experiences positively influences (a) planned impulse buying, (b) reminded impulse buying, and (c) fashion-oriented impulse buying.

H4: Cognition in aesthetic experiences positively influences (a) planned impulse buying, (b) reminded impulse buying, and (c) fashion-oriented impulse buying.

III. Methods

1. Measurement Development

A self-administrated questionnaire was developed based on an established measurement of constructs from prior research, but with adaptations in order for it to be applicable to the context of our proposed model. The variables of the study were measured with multiple, seven-point, Likert-type items adapted for this context from a published scale (see <Table 1> for the specific items). The measures consisted of seven constructs: aesthetic value of fashion design, aesthetic acumen for evaluating fashion design, affect and cognition in aesthetic experiences, and three impulse buying typologies: planned impulse buying, reminded impulse buying, and fashion-oriented impulse buying. Aesthetic value and acumen were measured with eight items adapted from Bloch et al.'s (2003) eleven items of CVPA scale. Three items for aesthetic response were excluded in this study because behavioral response dimension results from other two dimensions and it may be a part of impulse buying behavior as dependent variables. Affect in aesthetic experiences was measured by three items adapted from Adaval (2001) and Desmet et al. (2003), and cognition in aesthetic experiences was measured by three items from Pol et al. (2010). Finally, impulse buying for fashion products was measured by nine items were identified from Han et al. (1991). Each three items of impulse buying included three typologies of impulse buying, and these typologies also

verified by Park and Kim (2008). Additionally, demographic variables such as age, education, and occupation were included.

2. Data Collection and Analysis

A convenience sample was drawn from female consumers in Korea through an online survey company named Embrian. Data were collected in July 2010, and a total of 520 usable questionnaires were obtained. The survey targeted females between 20 and 39 years of age since it was expected that this group would have high interest in fashion design and consider visual aesthetics to be highly central. More respondents were ages 25 to 29 years old (30.8%) than 20 to 24 (28.8%), 30 to 34 (23.1%), and 35 to 39 (17.3%). A majority of the respondents (63.1%) were unmarried and had a college-level education or higher (82.3%). Approximately 50% of respondents were office workers, 22.7% of them were students, and 18.1% of them were housewives.

Descriptive statistics, Cronbach's alpha, and an exploratory factor analysis were conducted using SPSS for Windows 18.0. For hypotheses testing, a structural equation model using a correlation matrix with maximum likelihood was estimated using AMOS 18.0 to examine hypothetical relationships among the latent variables.

IV. Results and Discussion

1. Measurement Assessment

The reliability test, which examines the internal consistency of a construct, is performed by Cronbach's alpha and composite reliability (CR). As shown in <Table 1>, all constructs show a value above the threshold .70 for both Cronbach's alpha and CR. Correlations and descriptive statistics of individual constructs are provided in <Table 2>.

An exploratory factor analysis revealed seven factors whose eigenvalues were 1.0 or higher. Two item of aesthetic value were deleted due to factor loadings that were lower than .60. The seven factors accounted for 81.0% of the total variance. A confirmatory fac-

Table 1. Measurement items and reliability

Construct	Measurement Items	α	CR
Aesthetic Value	Owning apparel products that have superior designs makes me feel good about myself. I enjoy seeing displays of apparel products that have superior designs.	.75	.77
Aesthetic Acumen	Being able to see subtle differences in apparel product designs is one skill that I have. I see things in an apparel product's design that other people tend to pass over. I have the ability to imagine how an apparel product will fit in with designs of other clothes I already own. I have a pretty good idea of what makes clothes look better than their competitors.	.93	.89
Affective Experience	I feel glad when I see a beautiful apparel product. I feel delighted when I see beautiful clothes. I feel inspired when I see aesthetically pleasing clothes.	.89	.87
Cognitive Experience	I think aesthetically pleasing apparel products can help me become more attractive to others. I think well-designed apparel products can make me appear more desirable to others. I think beautiful apparel products can convey an appealing image of myself.	.96	.94
Planned Impulse Buying	I decide what to buy only after I look around a store. I expect to find something I want to buy when I get to the store. I tend to decide what to buy while looking around the store.	.74	.77
Reminded Impulse Buying	When I see clothing I had looked for before, I buy it even though I went shopping for other items. I buy something if I think I need it, even though I went shopping for other purposes. I buy something if it reminds me of an item I want.	.88	.82
Fashion-oriented Impulse Buying	If I see clothing in a new style, I buy it. When I see a garment with a new feature, I buy it to try it out. I like to buy new clothing that just came out.	.89	.83

Table 2. Correlations of the constructs

	Mean	1	2	3	4	5	6	7
1. Aesthetic Value	5.95	1.00						
2. Aesthetic Acumen	4.52	.44	1.00					
3. Affective Experience	5.21	.50	.52	1.00				
4. Cognitive Experience	5.69	.56	.45	.59	1.00			
5. Planned IB	4.99	.39	.39	.42	.42	1.00		
6. Reminded IB	5.16	.43	.41	.44	.45	.47	1.00	
7. Fashion-oriented IB	4.23	.36	.55	.45	.40	.45	.54	1.00

tor analysis also was conducted to verify convergent and discriminant validity. As reported in <Table 3>, all items loaded significantly on the intended corresponding factor, and all factor loadings were above .50, supporting the unidimensionality of the constructs. Further, all the estimates for the average variance extracted (AVE) were greater than .50. I tested discriminant validity by examining if the average variance extracted (AVE) for each construct was larger than the squared correlations between constructs. In support of discriminant validity, I found that the AVE for each construct was larger than the squared corre-

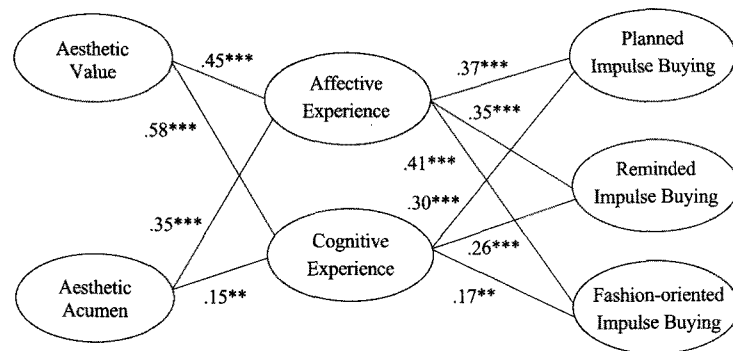
lations between constructs (Fornell & Larcker, 1981). The measurement model of the constructs in the proposed conceptual framework shows good overall fit ($\chi^2/df=2.24$). The goodness-of-fit index (GFI) is .94; the comparative fit index (CFI) is .97; the normed fit index (NFI) is .95; and the root mean square error of approximation (RMSEA) is .049.

2. Hypotheses Testing

The suggested research model and hypotheses were tested by using a structural equation model and <Fig.

Table 3. Construct measurement assessment

Construct	Items	Factor Loading	AVE
Aesthetic Value	VA1	.75	.63
	VA2	.79	
Aesthetic Acumen	AC1	.92	.68
	AC2	.94	
	AC3	.82	
	AC4	.81	
Affective Experience	AF1	.86	.69
	AF1	.89	
	AF1	.82	
Cognitive Experience	CO1	.90	.85
	CO2	.95	
	CO3	.93	
Planned Impulse Buying	PL1	.55	.54
	PL2	.74	
	PL3	.62	
Reminded Impulse Buying	RE1	.83	.61
	RE2	.81	
	RE3	.89	
Fashion-oriented Impulse Buying	FA1	.84	.62
	FA2	.87	
	FA3	.87	
Model Fit	$\chi^2=376.8$, $df=168$ ($p=.000$) GFI=.94, CFI=.97, NFI=.95, RMSEA=.049		



** $p < .01$, *** $p < .001$

Model Fit: $\chi^2=459.5$, $df=174$ ($p=.000$), GFI=.92, CFI=.96, RMSEA=.056

Fig. 2. Structural model.

2> shows the results of the hypotheses testing. The resulting goodness-of-fit statistics were a GFI of .92, a CFI of .96, and an RMSEA of .056.

The aesthetic value of fashion designs was linked to affect (H1a) and cognition (H1b) in aesthetic experiences. Regarding each hypothesis, positive relationships were found between aesthetic value and affective experience (H1a: $\beta=.45$, $p<.001$) and between aes-

thetic value and cognitive experience (H1b: $\beta=.58$, $p<.001$). These results imply that consumers who value fashion designs are more likely to experience cognitive processes such as self-enhancement than to experience affective processes. In addition, positive relationships were found between aesthetic acumen and affective experience (H2a: $\beta=.35$, $p<.001$) and between aesthetic acumen and cognitive experience

(H2b: $\beta=.15, p<.01$). The results show positive relationships between affective experience and planned impulse buying (H3a: $\beta=.37, p<.001$), reminded impulse buying (H3b: $\beta=.35, p<.001$), and fashion-oriented impulse buying (H3c: $\beta=.41, p<.001$). In addition, positive relationships were found between cognitive experience and planned impulse buying (H4a: $\beta=.30, p<.001$), reminded impulse buying (H4b: $\beta=.26, p<.001$), and fashion-oriented impulse buying (H4c: $\beta=.17, p<.01$). These results imply that affect in aesthetic experience is more closely related to fashion-oriented impulse buying, and cognition in aesthetic experience is more closely related to planned and reminded impulse buying.

V. Conclusions and Implications

This study analyzed the effect of the centrality of visual product aesthetics such as aesthetic value and acumen on impulse buying in the shopping context, which is mediated by aesthetic experiences. The findings from the investigation of this comprehensive framework for the study of fashion product aesthetics offer a number of critical implications both for the current literature and for management.

First, past research has discussed the impact of the centrality of visual product aesthetics on consumer behaviors (Bloch et al., 2003; Workman & Caldwell, 2007), but limited research has been conducted to explore how aesthetic experiences mediates the impact of product aesthetics on consumer behavior. Currently, there appears to be an emerging view that something about aesthetics differentiates them from other low-level affective experiences such as mood; however, the exact nature of that distinguishing characteristic has not been elucidated (Charters, 2006). The findings provide evidence that affect and cognition, as two distinct processes, exist between the centrality of product design and consumer behavior, and the two processes differ in their impact on consumer behavior such as impulse buying.

Second, aesthetic value and acumen as the centrality of visual product aesthetics have asymmetric effects on affect in aesthetic experiences and cognition in aesthetic experiences, respectively. Aesthetic value has

a greater effect than aesthetic acumen on cognitive experience. That is, aesthetic consumption has a strong symbolic dimension, which comes from the value of designs for increasing one's self-worth and adding to one's social capital. On the other hand, aesthetic acumen influences affective experiences more strongly than aesthetic value does. This means that marketers need to offer consumers who have a good taste in designs affective benefits such as pleasure and inspiration in fashion stores.

Third, affect and cognition in aesthetic experiences affect different impulse buying typologies. Aesthetically appealing products have been linked to impulse buying behaviors (Bloch et al., 2003), but previous research has found no relationship between aesthetic experiences and various impulse buying typologies. This result shows that cognitive experiences like self-enhancement can cause impulse buying, while positive affective responses brought about by a product's aesthetic appeal can also cause consumers to engage in impulse buying. Especially, affect in aesthetic experience is more closely related to fashion-oriented impulse buying, and cognition in aesthetic experience is more closely related to planned and reminded impulse buying. Therefore, affect and cognition in aesthetic experience is differentiated in terms of the impact on various impulse buying typologies, and affective experience can cause mood-based purchase without any plan or recall.

However, this study's findings should be viewed in light of the following potential limitations. Most importantly, this study focused on affect and cognition in aesthetic experiences, their antecedents, and their impact on impulse buying. Recently, many researchers have proposed unique mechanisms behind beautiful consumer products, and therefore, more variables regarding aesthetic experiences as well as affect and cognition need to be found. Secondly, the sample was collected through an internet survey only even though impulse buying behavior in this study was not based on online purchase. Use of the offline survey and variability of the sample might afford greater confidence in the generalizability of the results. Thirdly, this study targeted only female consumers, because women are considered to be more interested in fashion

designs. However, as the menswear market expands, it would be more meaningful to analyze male versus female samples and to learn how each group is different from the other. Lastly, other consumer characteristics besides the centrality of visual product aesthetics may influence aesthetic experiences. Therefore, future research should explore potential antecedents of various aesthetic experiences and impulse buying in order to establish greater confidence in the conceptual framework for the study of product aesthetics.

References

- Adaval, R. (2001). Sometimes it just feels right: The differential weighting of affect-consistent and affect-inconsistent product information. *Journal of Consumer Research*, 28(June), 1–17.
- Bamosny, G., Johnston, M., & Parsons, M. (1985). The assessment of aesthetic judgment ability. *Empirical Studies of the Arts*, 3, 63–79.
- Bayley, G., & Nancarrow, C. (1998). Impulse purchasing: A qualitative exploration of the phenomenon. *Qualitative Market Research: An International Journal*, 1(2), 99–114.
- Beatty, S. E., & Ferrell, M. E. (1998). Impulse buying: Modeling its precursors. *Journal of Retailing*, 74(2), 169–191.
- Bloch, P. H. (1995). Seeking the ideal form: Product design and consumer response. *Journal of Marketing*, 59(July), 16–29.
- Bloch, P. H., Brunel, F. F., & Arnold, T. J. (2003). Individual differences in the centrality of visual product aesthetics: Concept and measurement. *Journal of Consumer Research*, 29(4), 551–565.
- Charters, S. (2006). Aesthetic products and aesthetic consumption: A review. *Consumption, Markets and Culture*, 9(3), 235–255.
- Coates, D. (2003). *Watches tell more than time: Product design, information and the quest for elegance*. London: McGraw-Hill.
- Creusen, E. H., & Schoormans, P. L. (2005). The different roles of product appearance in consumer choice. *Journal of Product Innovation Management*, 22(1), 63–81.
- Csikszentmihalyi, M., & Robinson, R. E. (1990). *The art of seeing*. Malibu, CA: J. Paul Getty Museum.
- Desmet, M. A. (2003). A multilayered model of product emotions. *The Design Journal*, 6(2), 4–13.
- Dumaine, B. (1991). Design that sells and sells and... *Fortune*, 123(5), 86–91.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(August), 382–388.
- Hammer, N. (1995). *Successful product engineering: Testing for optimal design and function*. Berlin: ESOMAR.
- Han, Y. K., Morgan, G. A., Kotsiopoulos, A., & Kang-Park, J. (1991). Impulse buying behavior of apparel purchasers. *Clothing and Textiles Research Journal*, 9(3), 15–21.
- Harris, D. (1996). Aesthetic awareness: A psychologist's view. *Art Education*, 19(5), 17–23.
- Hausman, A. (2000). A multi-method investigation of consumer motivations in impulse buying behavior. *Journal of Consumer Marketing*, 17(5), 403–419.
- Holbrook, M. B. (1986). Aims, concepts, and methods for the representation of individual differences in esthetic responses to design features. *Journal of Consumer Research*, 13(3), 337–347.
- Holbrook, M. B., & Zirlin, R. B. (1985). Aesthetic creation, artworks and aesthetic appreciation. *Advances in Non-Profit Marketing*, 1, 1–54.
- Kaiser, S. B. (1997). *The social psychology of clothing: Symbolic appearances in context* (2nd ed.). New York: Fairchild.
- Ko, S. (1993). *The study of impulse buying of clothing products*. Unpublished master's thesis, Seoul National University, Seoul.
- Kotler, P., & Rath, G. A. (1984). Design: A powerful but neglected strategic tool. *Journal of Business Strategy*, 5(2), 16–21.
- Lindgaard, G. (2007). Aesthetics, visual appeal, usability and user satisfaction: What do the user's eyes tell the user's brain? *Australian Journal of Emerging Technologies and Society*, 5(1), 1–14.
- Martindale, C., Moore, K., & Borkum, J. (1990). Aesthetic preference: Anomalous findings for Berlyne's psychological theory. *The American Journal of Psychology*, 10(1), 53–80.
- Norman, D. A. (2004). *Emotional design: Why we love (or hate) everyday things*. New York: Basic Books.
- Park, E. J., & Kim, E. Y. (2008). Effects of consumer tendencies and positive emotion on impulse buying behavior for apparel. *Journal of the Korean Society of Clothing and Textiles*, 32(6), 980–990.
- Pham, M. T., Cohen, J. B., Pracejus, J. W., & Hughes, G. D. (2001). Affect monitoring and the primacy of feelings in judgment. *Journal of Consumer Research*, 28, 167–188.
- Piron, F. (1991). Defining impulse purchasing. *Advances in Consumer Research*, 18, 509–513.
- Pol, G., Kim, H., & Park, C. W. (2010, February). *The A.I.R. construct: The unique processing mechanism for the effects of product aesthetics on consumers' attitudes*

- and behaviors*. Paper presented at the conference of Society for Consumer Psychology, St. Pete Beach, FL.
- Reber, R., Schwarz, N., & Winkielman, P. (2004). Processing fluency and aesthetic pleasure: Is beauty in the perceiver's processing experience? *Personality and Social Psychology Review*, 8(4), 364–382.
- Ritterfeld, U. (2002). Social heuristics in interior design preference. *Journal of Environmental Psychology*, 22, 369–386.
- Rook, D. W. (1987). The buying impulse. *Journal of Consumer Research*, 14, 189–199.
- Rook, D. W., & Fisher, R. J. (1995). Trait and normative aspects of impulsive buying behavior. *Journal of Consumer Research*, 22(3), 305–313.
- Rook, D. W., & Hoch, S. J. (1985). Consuming impulses. *Advances in Consumer Research*, 12(1), 23–27.
- Stern, H. (1962). The significance of impulse buying today. *Journal of Marketing*, 26(2), 59–62.
- Tractinsky, N. (2004). Toward the study of aesthetics in information technology. *Proceedings of Twenty-Fifth International Conference on Information Systems, USA*, 771–780.
- Veryzer, R. W. (1993). Aesthetic response and the influence of design principles on product preferences. *Advances in Consumer Research*, 20, 224–228.
- Veryzer, R. W., & Hutchinson, W. J. (1998). The influence of unity and prototypicality on aesthetic responses to new product designs. *Journal of Consumer Research*, 24(March), 374–394.
- Winkielman, P., & Cacioppo, J. T. (2001). Mind at ease puts a smile on the face: Psychophysiological evidence that processing facilitation leads to positive affect. *Journal of Personality and Social Psychology*, 81, 989–1000.
- Workman, J. E., & Caldwell, L. F. (2007). Centrality of visual product aesthetics, tactile and uniqueness needs of fashion consumers. *International of Consumer Studies*, 31, 589–596.
- Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist*, 35(2), 151–175.