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CONSUMER RESPONSE TO PRODUCT DESIGN USING ART IMAGES: AESTHETIC INCLINATION OF CONSUMERS

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Abstract – This study aims to examine consumer response studies related to art marketing. A preliminary survey was conducted to analyze consumer response research on art marketing, a research model was set up for empirical analysis, and research hypotheses were established accordingly. This study aims to confirm the effect of product design (art image product/general image product/no image product) on consumers' product evaluation and luxury awareness. In addition, this product design verifies that the effect on consumers' product evaluation and luxury awareness has an interactive effect according to the consumer's aesthetic propensity. The results of this study analysis are as follows. It was confirmed that art image products had a more positive effect on product evaluation and luxury awareness than general image products and no image products. Next, it was found that there is an interaction effect between product design, product evaluation, and luxury awareness according to consumers' aesthetic tendencies. Finally, at this point in time, when the environment surrounding art marketing is rapidly changing, it aims to maximize practical and theoretical insights by deriving consumers' awareness, meaning, and utilization of art marketing.

Keywords – Product Design, Product Evaluation, Awareness of The Product, The Aesthetic Propensity of Consumers

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1. INTRODUCTION

Many companies are creating differentiated and successful brand power by strategically utilizing it for marketing by collaborating with brands, artworks, and the creativity of artists, moving away from simple sponsorship [1]. In particular, as the importance of creative management gradually increases, many companies pay attention to the originality and uniqueness of art and are competing fiercely to realize creative ideas based on solid technology [2]. Examples include tuna can holiday gifts using British artist William Powell Frith by Dongwon Group(2015), household products using Ben Eine by Shinsegae Department Store(2016), art cars using BMW's Andy Warhol's art, and Rodney Smith's photo advertisement by Hyundai Motor.

In this study, art marketing was defined as "Marketing through Art" based on the studies of Kim Hyungyeong and Kim Hyungjun [3] and Hagtvedt and Patrick [4]. A systematic approach to art marketing in the field of business administration was initiated by Hagtvedt and Patrick [4], and they generally confirmed that products with art images give consumers more favorable evaluation and awareness than products without art images. In addition, the approach to art marketing is found in many preceding studies related to cultural marketing [5~9].

Previous studies on art marketing have been conducted in various aspects. A study on consumer response to art marketing [10~13], a study on package design and color design on art marketing [14, 15], case studies and exploratory studies on art marketing [16, 17], art infusion studies on art marketing [18~20] and others. However, despite the various studies such as the above on art marketing, the differentiation, value, and clear direction of academic research still need to be improved. In addition, it is judged that there needed to be more academic and practical approaches to critical variables, such as the influence on consumer response or the control power of aesthetic propensity, as suggested in this study.

2. THEORETICAL FRAMEWORK

2.1 CONCEPTS OF ARTMARKETING

When people think of art, they think of pure arts such as classic 'famous paintings by famous painters', 'classical music', and 'ballet'. For the general public, the concept that

fine art is quite difficult, high-level, and challenging to access in everyday life is dominant. Therefore, it was not easy to think that it would be possible to utilize art for marketing because it is pretty difficult to use the art for commercial products [21]. Art marketing can be seen as a kind of emotional marketing among customers' various needs [22], and it can be said that it is a management activity that combines art with marketing as a means of promotion and profit-seeking by companies and organizations [23]. In addition, art marketing is the latest marketing trend that not only popularizes art, which was considered a high-end culture by combining the genre of art with products, but also induces purchasing behavior by using the desire to satisfy the cultural sensibility of modern people who value individual values [24].

2.2 PRODUCT DESIGN AND CONSUMER RESPONSE

In Peraccio and Meyers-Levy's [25] study on product evaluation of advertising images, various art images have been frequently used in advertising and product design, and research results have been derived that such images affect consumer reactions. According to a study by Crader and Zaichkowsky [26], art has the effect of arousing the viewer's imagination and attracting attention, and can have a favorable influence on consumers by applying various artistic elements to the product. In a study by Sheng-Ping Tao [10] on "Action Intention for Art Works," it was said that consumer reactions to products injected with art may appear differently depending on the product type. In a study on the "product evaluation of art collaboration" by Kim Hyun-kyung and Kim Hyung-joon [27], it was found that by applying art to the product, consumers responded more positively to the product, and at this time, pleasure goods had a more positive effect than practical goods. In addition, it was confirmed that consumers' aesthetic tendencies directly affect the evaluation or purchase of art products. The meeting of art and products creates luxury and creates various synergies. When art is used as a design element in a general product, consumers recognize the general product as a luxury product and make a positive evaluation [28].

H1a: When art images are used in product design, consumers' product evaluation will be higher than when they are not used.

H1b: When art images are used in product design, consumers' luxury awareness will be higher than when they are not used.

2.3 INTERACTION EFFECT OF AESTHETIC INCLINATION

According to a study by Lee Myung-Cheon et al.,[29], the effect of art advertising was high regardless of the type of product, and the suitability between the product and the work, the familiarity of the work, and product type play a role as moderating variables. In the study of 'Development and Evaluation of Art Marketing' by Fillis [30], art is a factor that stimulates the human senses, mind, and soul, and it can be easy to induce human behavior as well as understand human behavior. Park Jong-mi et al.,[31] said that art marketing encourages consumers to purchase continuously by increasing differentiated brand image, luxury awareness, and loyalty by utilizing the value of artworks and art departments from the perspective of companies and marketers. In addition, consumers can easily access artworks in their daily lives to meet cultural needs, and companies increase consumers' aesthetic tendencies by stimulating consumer sensibility and giving positive value to products.

H2a: When art images are used in product design, the product evaluation will be more favorable when aesthetic inclination is high than when it is low.

H2b: When art images are used in product design, the luxury awareness will be more favorable when aesthetic inclination is high than when it is low.

3. EXPERIMENTAL DESIGN

3.1 OVERVIEW OF EXPERIMENTAL DESIGN

In this study, the effect of product design (art image product/general image product/no image product) on consumer product evaluation and luxury awareness was investigated through an experimental study. In addition, these product designs will verify the interaction effect on consumer product evaluation and luxury awareness through experimental design of Between Subjects Factor Design according to consumers' aesthetic inclination (high aesthetic inclination /low aesthetic inclination). To examine these differences, experimental advertisements were produced, all exposed advertisements were produced in the form of color print advertisements, and a total of

three advertisements were presented. Of the total 154 subjects participating in this study, experimental group 1 and experimental group 2 each targeted 52 people, and experimental group 3 targeted 50 people.

3.2 PRELIMINARY INVESTIGATION FOR SELECTION OF EXPERIMENTAL PRODUCTS

Two preliminary surveys were conducted to confirm the validity and reliability of the selection of experimental products and the manipulation of experimental variables. In order to select the products to be used in this study, 6 of the 24 products selected in previous studies (Tablet PC, Refrigerator, Camera, Coffee, Beer, Perfume) were extracted. In addition, the first preliminary survey was conducted on 22 graduate students to confirm whether the product was suitable for this study.

Two familiarity items and three items of interest used by Alba and Hutchinson [32] and Zaichkowsky [32] were modified and used in this study. As a result of the analysis, the familiarity (mean value = 6.31, standard deviation = .955) and interest (mean value = 5.33, standard deviation = 1.21) of refrigerators were the highest among a total of 6 types of products, and refrigerators were used in this study.

In order to select the art image of the experimental product in this study, 5 of the 37 arts with high frequency Vincent Van Gogh's 'Café Terrace at Night' and 'Van Gogh's Room in Arles', Marc Chagall's 'Me and the Village', Gustav Klimt's 'Kiss', and Wassily Kandinsky's 'Yellow, Red, Blue' art were selected. Twenty subjects, excluding art and design majors and related workers, participated in the experiment to confirm whether was art suitable for this study. Three familiarity items and three fitness items used by Lee Ji-eun and Han Yeo-hoon [19] and Han Yeo-hoon [2] were used. As a result of the analysis, Wassily Kandinsky's 'Yellow, Red, Blue' showed the highest familiarity (mean value = 4.1, standard deviation = 2.38) and fit (mean value = 4.13, standard deviation = .736), which match well with the refrigerator selected for art. Figure 1. Is that Experimental Products of this study.

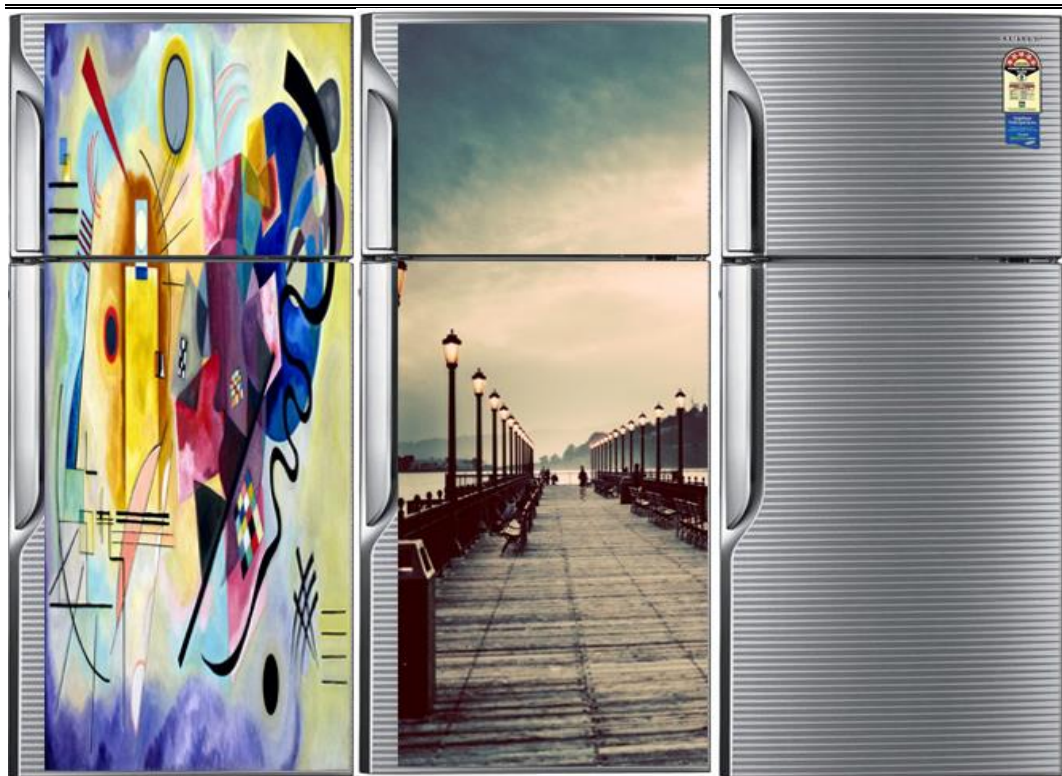


Figure 1. Experimental Products

Table 1. is that Measurement items of the study.

Table 1. Measurement Items

Variable	Measurement Items	Researchers
Product Evaluation	Unfavorable / Favorable	Hagtvedt et al.(2008)
	Negative/Positive	
	Bad/Good	
	Unpleasant/ Pleasant	
	Very dislike / Very Like	
Luxury Awareness	Luxurious	Bolch et al.(2003)
	Have dignity	
	Attractive	
Aesthetic Inclination	It makes me feel good to own a product with a good design.	Bolch et al.(2003)
	It makes me feel good to see excellent design products on display.	
	Design is an element that gives me pleasure.	
	It has the ability to see subtle differences in design.	
	You can find parts of the design that others cannot see.	
	It has the ability to make the product look good.	
	When I see a product with a good design, I feel like I should buy it.	
	When I see good design products, I feel a strong urge to buy them.	

4. RESEARCH ANALYSIS

This study is an experimental study, and a total of 154 people participated. Among them, 57 (37.3%) were in their 20s, 44 (11.9%) were in their 30s, and 33 (22.0%) were in their 50s. In addition, 78 office workers (50.8%) and 28 housewives (18.6%) were found to be jobs. Table 2. Is that Demographic characteristics.

Table 2. Demographic Characteristics

Segregation		(persons)	(%)	Segregation		(persons)	(%)
Gender	Male	89	57.7	Job	Student	20	13.6
	Female	65	42.2		homemaker	28	18.6
Age	20	57	37.3		Office worker	78	50.8
	30	44	28.8		Self-employment	20	13.6
	40	18	11.9		Other	5	3.4
	50	33	22.0	Monthly income	Less than one million won	23	15.3
Education	High School	44	28.8		Less than 1 to 2 million won	26	16.9
	While in University	18	11.9		Less than 2 to 3 million won	57	37.3
	Graduate from university	73	47.5		Less than 3 million won to 4 million won	31	20.3
	Graduate school or higher	15	10.2		Less than 4-5 million won	15	10.2
Total 154(persons), 100(%)							

The results of the verification of the operation of the product and the artwork are shown in Table 3 below. Mean value 4.69 (t-value=25.530, p-value=) of the suitability of the product and the artwork.000). Mean value 4.69 (t-value=25.530, p-value=) of the familiarity of the product and the artwork.000).

Table 3. The Manipulation of Products and Artworks

Factor	Mean value	St.D	t-value	p-value
Fitness	4.69	1.57	25.530	.000
Unfitness	2.45	.974		
Familiarity	4.44	1.98	15.385	.000
Unfamiliarity	2.01	.823		

The reliability analysis of this study is shown in Table 4 below, and all reliability coefficients were .879 or higher.

Table.4 Reliability analysis

Variable	Measurement Items	alpha
Product Evaluation	Unfavorable / Favorable	.879
	Negative/Positive	
	Bad/Good	
	Unpleasant/ Pleasant	
	Very dislike / Very Like	
Luxury Awareness	Luxurious	.891
	Have dignity	
	Attractive	
Aesthetic Inclination	It makes me feel good to own a product with a good design.	.887
	It makes me feel good to see excellent design products on display.	
	Design is an element that gives me pleasure.	
	It has the ability to see subtle differences in design.	
	You can find parts of the design that others cannot see.	
	It has the ability to make the product look good.	
	When I see a product with a good design, I feel like I should buy it.	
	When I see good design products, I feel a strong urge to buy them.	

The hypothesis verification of product evaluation and luxury awareness according to product design is shown in Table 5 below. Both hypotheses H1a and H1b have been adopted.

Table 5. Hypothesis Test Results H1

Dependent Variable	Product Design	Mean	St.D	F-Value	p.-value	Result
Product Evaluation	art image product	4.48	1.26	4.625	.000	Accepted
	general image product	3.43	1.48			
	no image product	3.04	1.32			
Luxury Awareness	art image product	4.74	.904	5.287	.000	Accepted
	general image product	3.65	1.29			
	no image product	3.11	1.23			

A MANOVA analysis was conducted to verify the research hypothesis H2a and hypothesis H2b. The following Table 6 shows the average and standard deviation of consumers' product evaluation and luxury awareness according to product design and consumers' aesthetic inclination.

Table 6. Hypothesis Test Results H2

Dependent Variable	Product Design	Aesthetic Inclination	Dependent Variable	Product Design	Aesthetic Inclination
Product Evaluation	art image product	High 4.19(1.05)	Luxury Awareness	art image product	High 4.58(1.03)
		Low 3.97(1.18)			Low 3.61(1.15)
	general image product	High 4.15(1.43)		general image product	High 4.5(1.10)
		Low 3.98(1.32)			Low 3.51(1.37)
	no image product	High 3.43(1.42)		no image product	High 3.23(1.78)
		Low 3.66(1.44)			Low 2.7(1.01)

The results of MANOVA analysis are shown in [Table 7]. Hypothesis 2-1 was adopted at 10%, and Hypothesis 2-2 was adopted.

Table 7. Hypothesis Test Results H2

Sauce	Dependent Variable	Type III Squares	df	Mean Squares	F	p-value
Modified model	Product Evaluation	16.230	5	3.246	3.093	.013
	Luxury Awareness	23.385	5	4.677	2.223	.060
Section	Product Evaluation	1154.572	1	1154.572	1100.230	.000
	Luxury Awareness	1150.579	1	1150.	546.814	.000
Product Design (A)	Product Evaluation	9.790	2	579	4.665	.012
	Luxury Awareness	8.001	2	4.895	1.901	.156
Aesthetic Inclination (B)	Product Evaluation	.408	1	4.001	.388	.535
	Luxury Awareness	5.656	1	.408	2.688	.105
A*B	Product Evaluation	6.090	2	5.656	2.902	.061
	Luxury Awareness	14.724	2	3.045	3.499	.035
Error		155.252	148	7.362		
		310.504	148	1.049		
Total		1342.342	154	2.104		
		1512.849	154			
Revised Total		100.181	153			
		191.717	153			

5. CONCLUSION

In this study, the consumer response to the product was confirmed by product evaluation and luxury awareness, and how this effect varies depending on the aesthetic tendency of the consumer. For empirical analysis, pre-survey inspections were also conducted, and refrigerators were selected as the product of the study, and "Yellow, Red, and Blue" by Vasily Kandinsky was selected as the art.

The analysis results of the study are as follows.

First, it was confirmed how it affects consumers' product evaluation and luxury awareness according to product design (art image product/general image product/no image product). From these results, it was confirmed that the effect of art products was particularly applied to art, but consumers' evaluation of the product and luxury awareness of the product were high. In general, it can be predicted that products using art will have better results than those that do not. Art has a high concept in common, and in particular, the art attributes used as a marketing tool are reminiscent of elements that constitute luxury, such as exclusivity, soft cell, high quality, reputation, and high status. Therefore, when art with such a positive meaning is applied to a product, consumers have a high perception of luxury for general products, forming a positive attitude not only for the product but also for the brand. As a result, consumers perceive the value of the product higher, resulting in a higher luxury awareness than the existing product. This sensory experience shortens consumers' decision-making time at the time of purchase if they are not aware of the obvious differences between many similar products and brands. And considering the nature of the package of the product, which is perceived as an organized whole rather than a part, art injection makes us infer product properties through the imaging process of art images in terms of visual information, and further increases the actual expectation level for product functions. In addition, it ultimately helps brand re-in and recall.

Second, the effect of product design on consumers' product evaluation and luxury awareness was verified according to consumers' aesthetic tendencies. It was found that there was an interaction effect between product design, product evaluation, and luxury awareness according to the aesthetic tendency of consumers. Looking at these results, it was confirmed that the evaluation of the consumer's product and the luxury awareness of the product were affected according to the product design and the aesthetic tendency of

the consumer. These results suggest that if aesthetic tendencies show a product using art to consumers, they can recognize the symbolic value of novelty and luxury more if they select a unique work rather than a popular painting and use it for the product, which is likely to increase product evaluation and luxury awareness.

REFERENCE


- [1]Chul-Young Lee and Jun-Young Lee, "The Moderating Roles of Evaluation Goal, Involvement, and Attitude Confidence in the Hierarchy of Advertising Effects," *Journal of Marketing Research of Korea*, 13.2, (1998)53-76.
- [2]Han Yeo-hoon, "A Study on the Art Infusion as Design Components," *Journal of Design Research in Korea*, 27.2, (2013):203-215.
- [3]Kim Hyung-yeong and Kim Hyung-jun, "The Influence of Art Collaboration to the Product Evaluation: Focus on the Centrality of Visual Product Aesthetics," *Korea Academy of Commodity Science and Technology*, 32.6, (2014): 31-40.
- [4]Hagtvedt, H. and Patrick, V, "Art and the Brand: The Role of Visual Art in Enhancing Brand Extendibility," *Journal of Consumer Psychology*, 18.3, (2008): 212-222.
- [5]Erdenechimeg Erdenetsetseg, Tserendavaa Purevjal, Ariunaa Chogsom and Anu-Ujin Bat Erdene, "The Effective Use of Digital Marketing for Brand Building" *International Journal of Social Science and Humanities Research-MIYR*, 2.1, (2022):17-35.
- [6]Moon Dal-Joo and Heo Woong, "A Study on Buildin: Focusing on The Types of Luxury Brand Image and The Roles of Culture Marketing," *Korea Advertising Society*, 17.2, (2006):59-82.
- [7]Amarjargal Gandolgor, "Women's Labor Force Participation in Asian Developing Countires," *International Journal of Social Science and Humanities Research-MIYR*, 2.1, (2022):1-16.
- [8]Lee Mun-Gyu and Moon Yeon-Kyung, " Effects of Culture Marketing versus Traditional Marketing Activities on Consumer Store Evaluations and Loyalty," *Korean Marketing Management Association*, 13.2, (2008): 1-22.
- [9]Jang Hyeong-yu and Gantumur Khongorzul, "The Influence of Cultural Marketing on Recommendation: Focused on the Moderation Effect of Premium Price," *The Academy of Customer Satisfaction Management*, 17.1, (2015):43-65.
- [10]Sheng-Ping Tao, "Personality, Motivation and Behavioral Intentions in the Experiential Consumption of Artworks," *Social Behavior and Personality*, 41.9, (2013): 1533-1546.
- [11]Myeong-cheon Lee, Sok-won Khang and Chong-He Na, "The Effect of the Verbal Anchoring in the Ad with Art Image - Focusing on the Moderate Effects of the Art Familiarity, Product-art Congruence, and Product Types," *Korean Association of AD & PR*, 102.9, (2014): 202-239.

- [12] Ji-ae Kim and Hyung-jun Kim, "A Study on Art Familiarity and Product-Art Fitness on Consumers' Reaction: Focused on the Moderating effects of Centrality of Visual Product Aesthetics," *Journal of Marketing Research of Korea*, 23.2, (2015):67-83.
- [13] Gokhan, E., Tamar, Y., Yonghoon, G., and Peter, H, "The Art of Representation: How Audience-Specific Reputations Affect Success in The Contemporary Art Field," *Academy of Management Journal*, 59.1, (2016):113-134.
- [14] Battumur Gerelmaa, Tsagaan Tsolmon and Gantumur Khongorzul, "The Effect of Customer trust on Reuse Intention in The Mongolian Postal Delivery Service," *International Journal of Social Science and Humanities Research-MIYR*, 2.1, (2022):36-52.
- [15] So-jeong Park and Seo Kwon-heung, "Application of Colors to Apartment Interior Design," *The Korea Society of Illustration Research*, 45.12, (2015):35-44.
- [16] Lehman, K. and Wickham, M, "Marketing Orientation and Activities in The Arts-Marketing Context: Introducing a Visual Artists' Marketing Trajectory Model," *Journal of Marketing Management*, 30.7, (2014):664-696.
- [17] Chamintsetseg Narantsetseg, Anna Dunay and Tsoodol Nyamdulam, "The Role of Information Technology for Small Medium Enterprises Focusing on Vehicle Companies in Mongolia," *International Journal of Social Science and Humanities Research-MIYR*, 1.1, (2021):1-10.
- [18] Enkhbaatar Enkhbold and Gantumur Khongorzul, "A Study on The Satisfaction of Korean Universities: Focusing on Mongolian Students," *International Journal of Social Science and Humanities Research-MIYR*, 1.1, (2021):24-37.
- [19] Munkhnasan Sarantuya and Tugijav Oyunchimeg, "Local Citizen's Opportunity to Develop Sand Tourism in Elsen Tasarkhai Area of Mongolia," *International Journal of Social Science and Humanities Research-MIYR*, 1.1, (2021):52-62.
- [20] Gantumur Khongorzul and Jang Hyeong-yu, "The Influence of Temporal Distance on Consumer's Uncertainty, Preference and Purchase Intention: ART vs NON-ART, RNP vs INP," *The Academy of Customer Satisfaction Management*, 17.4, (2015):133-161.
- [21] Se Hae-yeon, Kim Hyang Mi, Jun Soo-Jin, "The effectiveness on how the fitness between artwork and product in art marketing impacts on the brand and artists attitude," *Journal of Arts Management and Policy*, 38.5, (2016):111-131.
- [22] Yong-seok Chun and Jong-woo Jeon, "Halo Effects of Visual Art Advertising," *Korean Association of AD & PR*, 22.1, (2011): 7-27.
- [23] Jon-sik Kang, "Art marketing case makeup cosmetics package design based on the proposal - 'Mule' cosmetics targeted -," *Brand Design Association of Korea*, 11.4, (2013):299-309.
- [24] Kim Jung-hyun, "The Effect of the Ad with Art Image on the Consumers' Response," *Journal of Public Relations*, 13.1, (2009): 97-122.
- [25] Peracchio, L. and Meyers-Levy, J, "How Ambiguous Cropped Objects in Advertisement Photos Affect Product Evaluations," *Journal of Consumer Research*, 21(June), (2005):190-204.


- [26]Crader, S., and Zaichkowsky, J, “The Art of Marketing in Bricks and Mortar Retailing in the 21st Century,” Tina M. Lowrey (Ed), Mahwah, Lawrence Erlbaum Associates. (2007).
- [27]Kim Hyun-kyung and Kim Hyung-joon, “The Influence of Art Collaboration to the Product Evaluation: Focus on the Centrality of Visual Product Aesthetics,” Korea Academy of Commodity Science & Technology, 32.6, (2014): 31-40.
- [28]Borja, D. M, “Design Management: Using Design to Build Brand Value and Corporate Innovation, Allworth Press, New York (2003).
- [29]Lee Myung-Cheon, Song-Yon Moon and Jong-Hyeon Kim, “A Study about the Effect of the Ad with Art Image,” Korean Association of AD & PR, 87, (2010): 41-70.
- [30] Fillis, I, “The Evolution and Development of Arts Marketing Research,” Arts Marketing: An International Journal, 1.1, (2011):11-25.
- [31]Park Jong-mi, Hung-Gin Chin and Min-jong Kim, “The Effect of Personality on Art Collaboration Advertising: The role of Prior Knowledge, Art Value Perception, and Art Familiarity,” The Korean Society of Science & Art, 13, (2013):3-17.
- [32]Alba, J. and Hutchinson, J, “Dimensions of Consumer Expertise,” Journal of Consumer Research, 13(March), (1987): 411-454.
- [33]Zaichkowsky, J, “Conceptualizing Involvement,” Journal of Advertising Research, 20.2, (1986): 4-14.

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