Website Color for Brand Image Consolidation

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Abstract: With "the improvement of brand image through the consolidation of the online and offline brand images" as the goal, the focus of this study lies in brand color. In order to analyze the differences between the website and offline image of a brand, as felt by the consumers, a survey on color image was conducted. Using the results of the survey as the foundation, a comparative analysis of online and offline color images was conducted, and the discrepancies between the two specified. Furthermore, solutions in creating websites that cultivate brand consolidation through color consolidation are presented. Using the thesis "Research on the Color Strategy of Brand-name Coffees¹," as a guide, and supplementing it with necessary improvements, this study presents three areas to consider when designing or managing websites for offline brands.

First of all, color image is not static but variable, meaning that it appeals to the consumers differently, depending on change in other brands, trends, consumer point of view, etc. Thus, color image must be flexible. Secondly, overall brand image can be improved by its offline color. However, it should be realized that identical colors could produce different results online and off. Lastly, in general, the online image falls behind the offline image, in regard to color strategy. Therefore, more meticulous and carefully planned color design is necessary, as is the consideration of the unique and distinctive qualities of the World Wide Web.

Keywords: Brand ID, Web color, Color-unification, Brand ID consolidation

1. Introduction

Marc Gobe said, "Consumer interest and devotion to brands today is at an all time low. When a brand takes consumers for granted, the consumers are always ready to turn their loyalty elsewhere. That is to say, strategy does not necessarily guarantee results. Consequently, a brand must strive, through continuous dialog with the consumer, to win a lifetime loyalty."

Gobe also said that a brand must be aware of all facets of its consumers and include these in the brand,

¹ Research on the Color Strategy of Brand-name Coffees, Lee Ji-A, Sook Myung Women's University, 2002

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as a strategy for continuous marketing and to attract specific target consumers. Most brands today utilize an Internet website to foster continuous communication between them and the consumer. The target group consists of consumers who have the skills to freely incorporate Internet use into their lifestyles. While brand image is comprised of three basic elements: symbol, logotype, and color, ³ this research focuses on brand color. The scope of this research is confined to Brand-name Coffees. This research deals with products that communicate with consumers both online and offline, reflect the current emotional trends, and are generally used by the 20~30 year-old age group.

'Research on the Color Strategy of Brand-name Coffees' was used as a reference to the online and offline Brand Image Consolidation research. It examines whether the combined on and offline color strategy of domestic brand coffees, which reflect the emotional trends of the younger generation, has been a significant factor in the elevation of a company's brand image. In addition, the present state of on and offline color strategy was analyzed using the IRI Hue & Tone 120, and the relevance of color in brand image was determined. With the results of the analysis as the foundation, a color image survey of the target group (age 20 to early 30s) was conducted using Osgood's Semantic difference method. The analysis of the survey results were then used to demonstrate the necessity of both an on and offline color strategy. ⁵

The results of this survey suggest that many brand-name websites today fail to consolidate the online image to the offline image, and thus fail to create a positive overall brand image. The reference research was limited in that the survey used printed media in the place of the offline medium. This study supplements that limitation by expanding the object of the survey to include the offline shop in order to more accurately research and analyze how consumers feel about brand image.

Brand image can be defined as "the positive or negative opinions (feelings) that consumers have about the brand of a particular company," or "brand trust"— a mental (psychological) formation of a product as the result of feelings about the product itself, combined with indirect exposure to the product through other channels. Brand Image, then, is how a brand gets conveyed to a consumer through his or her senses. Separate from the actual merits of the product, it is the complex concept of a product in the consumer's mind, resulting from factors such as emotional appeal, attitude, and product association. Therefore, regardless of the medium a brand chooses to use, a consistent image must be conveyed to its consumers. In addition, since the online image can have an effect on the consumers as well, management of the online brand image must not be neglected.

² Emotional Design Emotional Branding., Marc Gobe, Kim and Kim Books, 2002

³ Brand Naming, Kim, Jung II, Dongmunsa, p. 42

⁴ Research on the Color Strategy of Brand-name Coffees, Lee Ji-A, Sook Myung Women's University, 2002

⁵ Research on the Color Strategy of Brand-name Coffees, Lee Ji-A, Sook Myung Women's University, 2002, pp. 1~2.

⁶ Marketing Management Theory, Chung, Soon Tae, Bobmunsa, 1984, p. 527.

⁷ Research on Strategy for strengthening Brand Image, Lee, Sang Ha, In Ha Univeristy Graduate School of Business, 2001, p. 6.

Today, in the midst of a plethora of information and communication, the ability to stand out from the rest of the crowd is more important than ever. In a saturated market, the best way to win the consumers' attention is by 'design differentiation.' This differentiation can be achieved by using colors that appeal to the consumers' emotions. Also, by using colors that immediately remind the consumers of the company, repeat and impulse purchases should be induced by visual differentiation, and product recognition/recollection. Color choice can make or break a company's image, so the colors must play a key role in capturing consumers' interest. A color strategy must achieve congruity between a company's overall image and consumer preference. An integrated color strategy, both online and offline, will then become an integral part of creating product differentiation and providing an improved brand image for a company among its competitors. ⁸

As mentioned before, brand image is comprised of three basic elements: symbol, logotype, and color. Where a company's communication is concerned, brand color is the company's characteristic and distinctive color(s), ⁹ and it is chosen to consolidate the brand image. In choosing a brand color, emotional factors, product motive, and basic scientific knowledge all areas that demand consideration. Jung Wook Ko (1993) summarizes these into three points: ¹⁰

- 1. The color must be consistent with the company's ideology and product, and help to convey an ideal image.
- 2. The color must be eye-catching and attractive, and achieve differentiation from that of other companies.
- 3. The color must have the ability to easily be reproduced in multiple media, and should immediately remind the consumer of the company trademark.

From the planning stages of the product, color strategy needs to meet the needs of the consumer. The said 'product' is not referring simply to the commodity, but also the combination of all the things that a company produces in order to meet the demands of the consumer, such as service, location, ideas, people, and organization. In this manner, the color strategy of a product must be combined with the advertising medium, brand identity, packaging, POP, Internet homepage, and color image to be presented to the consumers as a whole.¹¹

Color cannot be overlooked in strategical marketing communication, and plays a crucial role in connecting the seller to the buyer.

Satoru Fuji, in his <Psychology of Shape and Aesthetics> says that there are five functions to be considered for accurate communication of information through color. Fuji's five functions were used as

10 Research on the Color Strategy of Brand-name Coffees, Lee Ji-A, Sook Myung Women's University, 2002, p. 19.

⁸ Research on the Color Strategy of Brand-name Coffees, Lee Ji-A, Sook Myung Women's University, 2002, p. 1.

⁹ Webpage

¹¹ Research on the Color Strategy of Brand-name Coffees, Lee Ji-A, Sook Myung Women's University, 2002, p. 21.

¹² The Psychology of Shape and Aesthetics, Fuji, Satoru Author, Kim, Bok Young Translation, Johyungsa, 1994, pp. 62~63.

the basis of the survey.¹³

- 1. Attractiveness- How attractive and eye-catching a product is. Hue and saturation is most closely connected with this function.
- 2. Visibility- How easily detected a product is. Between background and object, the one with more primary colors are more visible.
- 3. Identification- How easily distinguishable a product is.
- 4. Memorability- How easily a product is remembered.
- 5. Associational- How easily a consumer is reminded of a product.

Strategical color usage creates differentiation from other products and commands the consumers' attention.

This increases the memorability of a product and eventually plays a crucial role in the business activity and profit making.¹⁴

In today's market it has become almost impossible to increase brand recognition or brand preference with an unclear marketing strategy. Marketing communication's paradigm is shifting rapidly toward integrated communication¹⁵, with online communication at its heart. Considering that the consolidation of on and offline marketing is becoming mainstream, the current reality that the utilization of online color image falls behind the offline color image must be changed.

For the effective use of online color image, the Image Research Institute (IRI Color Design) Color Research Lab presents three criteria for online color selection. These criteria were used in addition to Fuji's Five Functions for communication of information through color. These criteria were used in addition to Fuji's Five Functions for communication of information through color.

- 1. Function: Color selection with the consideration of speed and fatigue on the eyes.
- 2. Aesthetics: Web design consolidation (color scheme based on creating harmony between the color conveying the desired associative message and the target users' preferred color) Creating harmony with elements other than color (Successful incorporation of the chosen color onto interface design)
- 3. Accuracy: Online color selection criteria based on the level of color unification resulting from user environment

The desired online image must be conveyed to the consumers during the time they stay on the Internet. An integrated color strategy also increases the staying power online and is a means to achieve differentiation from other brands. In the case of the color strategy of an integrated brand, it elevates brand image by offering consumers other design related elements within the whole. The colors play a crucial role in building up the company by visual stimulation and emotional association. ¹⁸

¹³ See Survey Content Distribution, p. 9.

¹⁴ Research on the Color Strategy of Brand-name Coffees, Lee Ji-A, Sook Myung Women's University, 2002, p. 24.

¹⁵ Advertisement Information: Changes in Media Environment Advertisement Industry, Lee, Myung Hoon, 2000, October Issue, pp. 37~38.

¹⁶ www.iri.co.kr

¹⁷ See Survey Content Distribution, p. 9.

¹⁸ Research on the Color Strategy of Brand-name Coffees, Lee Ji-A, Sook Myung Women's University, 2002, p. 32.

2.1 Subject

The research method follows that of the "Research on the Color Strategy of Brand-name Coffees." However, the aforementioned research was limited because it used a printed medium in the place of the offline medium. For a more accurate study, subjects were asked about their experience at an actual offline store while simultaneously looking at the online store on a laptop that was provided. Other objectives of the study include learning how the color strategies of trendy domestic brand-name coffee companies' are being conveyed to the consumers, to examine whether these brands have successfully achieved on and offline color consolidation, and to analyze the cause of any dissonance between the online and offline images.

The subjects can be classified into three groups: age, generation, and class.²⁰ The subjects for this study are 20-30 year old Seoul Metropolitan area residents, who have the skills to freely use the Internet and incorporate it into their lifestyles. The subjects included college students and design students who are sensitive to brand image. Of the 150 questionnaires that were originally distributed, 116 were completed and returned. Of these 116, 100 were used for the analysis.

2.2 Materials

The Scope of the Research is confined to the Top 3 Brand-name Coffee Companies that operate both an online and offline shop. The three companies are Starbucks, Coffee Bean, and Hollys, and each of them operate a Korean language website.



Fig.1 Online Starbucks _Main Page



Fig.2 Offline Starbucks Store



Fig.3 Online Starbucks_SubPage_About Us



Fig.4 Online Starbucks _SubPage_What's Happening

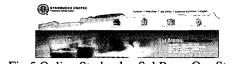


Fig.5 Online Starbucks_SubPage_Our Stores



Fig.6 Online Starbucks_SubPage_Coffee Break

<Starbucks On-line shop: www.istarbucks.co.kr and Offline Stimulant>

¹⁹ Research on the Color Strategy of Brand-name Coffees, Lee Ji-A, Sook Myung Women's University, 2002

²⁰ See Table 1,2



The collections force I was as

Fig.9 Online Coffee Bean _SubPage_About Us



Fig. 10 Online Coffee Bean _SubPage_Customer Relation



Fig.11 Online Coffee Bean _SubPage_Our Product



Fig.12 Online Coffee Bean _SubPage_Promotion



Fig.13 Online Coffee Bean _SubPage_Location

<Coffee Bean On-line shop: www.coffeebeankorea.com and Offline Stimulant>



Fig.14 Online Hollys_MainPage



Fig. 16 Online Hollys_SubPage_Hollys



Fig.17 Online Hollys_SubPage_Coffee



Fig.18 Online Hollys_SubPage_Menu



Fig. 19 Online Hollys_SubPage_Customer Care



Fig.20 Online Hollys _SubPage_News

Fig.15 Offline Hollys Store Hollys On-line shop: www.hollys.co.kr and Offline Stimulant>

2.3 Procedure

1) Preparations for the survey (Pre-survey research):

- -Demographic research (sex, age)
- -Analysis of consumer lifestyle (Frequency of internet use, coffee consumption)
- -Questions regarding Brand-name coffees

• Demographic Questions

- 1. Sex ①Male ②Female
- 2. Age ①20~24 years ②25~29 years ③30+ years

• Lifestyle Questions

- What is your daily Internet usage?
 2~3 hours per day ②1 hour per day ③1 hour per two days ④ Other(
 What is your purpose for using the internet?
 Information gathering ② Shopping
 - Thrormation gathering 2 Shopping
 - ③ Entertainment (games, chatting, etc.) ④ Other(
- 3. How often do you drink coffee?
 - ① 2~3 cups per day ② 1 cup per day ③ 1 cup per two days ④ Other(

• Preliminary Questions about Brand-name Coffees

- 1. What brand coffee do you enjoy the most?
 - ① Starbucks ② Coffee Bean ③ Hollys ④ Other(
- 2. What is your reason for enjoying this brand?
 - ① Brand Image ② Taste ③ Brand Design ④ Other(

2) Research on the On and Offline Color image of Brand-name Coffees

Satoru Fuji's Five Functions in communication of information through color and IRI's three criteria for Online color selection served as the guidelines for the survey and analysis. The consumers' answers were used to find out which of the functions of color showed the greatest discrepancy between the online and offline images. Utilizing the results of the analysis when attempting to reflect the offline brand image through the online medium will allow for a more effective production and management of brand website color.

The scope of the research was confined to the Top 3 Domestic Specialty Coffee Brands (as of April 2005), which operate both online and offline stores. The survey was conducted between April 1- April 15 2005. Subjects visited each of the three offline coffee shops, after which they also visited the online shops (websites), either on their own or on the laptop that was provided. Survey questionnaires were completed after the visits.

Through a 1:1 survey method, subjects were instructed to answer the questionnaires after observing both the online and offline stores. The format for the Color Image survey followed the Semantic Differential. American psychologist and communication scholar, Charles E. Osgood, pioneered the Semantic Differential method.

"The accuracy of the Semantic differential is highly assessed because its method of gauging meaning with a variety of adjectives provides an easier way to define even difficult expressions. This method is

²¹ Research on Design Methodology, Lee, Gun Pyo, Moongyobu Treatise, 1987, p. 124

useful not only for comparing contrasting notions, but also for comparing the differences in connotations. ²¹

Also, for optimum results, the quantitative analysis is conducted. The semantic scale uses antonymous adjectives, meaning that it gives one adjective and its antonym at either end of a number scale. On a 5-point scale, subjects can receive -2 to +2 points and then their average is taken. 'Around 20 subjects are adequate for accurate results, but less than 15 subjects can yield unreliable results.²²

This study used the above methods for research and analysis.

Table 1 Survey Content Distribution

Survey Category			Number of questions
		Pre-survey questions	
Demographics	• Sex • Age		2
Lifestyle	• Frequency of Internet u	ise	3
	• Purpose of Internet use		
	• Frequency of food and	drink consumption	
Preparation for survey	• Principal coffee brand	of consumption	2
	• Reasons for selection o	f brand	
	On and Of	fline Color of Brand-name Coffee	
Physical Qualities	High Quality (Low Quality (Low Quality)	ality) • Dynamic (Static)	10/8
	•Sweet (Bitter)		
	• Enjoyable (Not enjoyable)		
	• Youthful (Old) •Moder		
	• Expensive (Inexpensive		
	•Want to drink (Do not w	vant to drink)	
Functions of	F Attractiveness	• Functional (Non- functional)	10/8
Communication	U Distinction	• Attractive (Unattractive)	
	N	• Differentiation from other brands (No	
	C Approval	difference)	
	T	• Lasting impression (Not memorable)	
	I Impression	—• Desire to visit store (No desire to visit)	
	N (Recollection)	• Familiar (New)	
	Association	— ◆ Valuable (No value)	
	Aesthetics	_	
	Precision	• Consistent with brand-name coffee	_
		image (Inconsistent with Brand-name	
		coffee image)	
		• Suitable (Not Suitable)	

 $^{22\} A\ Study\ on\ the\ Semantic\ Differential\ Method's\ Handle\ Image,\ Chang\ In\ Sook,\ Pusan\ Polytechnic\ University,\ 1987.\ 02,\ p.\ 5.$

3) Statistics

3)-1. Method of Analysis

To examine the color image differences of online and offline coffee shops, the t-test, a descriptive statistics, was performed, using SPSS 11.5 for Windows statistics package. In addition, co-relations of image factors were analyzed and shared structures were identified to bind the image factors in homogeneous dimensions. After conducting a factor analysis to better understand the data, the differences of color image between online and offline shops by factors were analyzed using t-test. 1)

3)- 2. Research Results

1. Demographic characteristics of respondents

The demographic characteristics of this research survey respondents are as shown in Table 1.

Table 2 Demographic characteristics of respondents

Individual Characteristics	Category	Frequency(persons)	Percentage(%)
	Female	52	52
Gender	Male	46	46
	No answer	2	2
	20~24	39	39
A	25~29	52	52
Age	30 and above	5	5
	No answer	3	3
	2~3 hours/day	60	60
	1 hour/day	26	26
Internet Using hours	1 hour/2 day	2	2
<u> </u>	Others	11	11
	No answer	2	2
	Information collection	43	43
	Shopping	3	3
Domest of Internet Hea	Amusement		=
Purpose of Internet Use	(Entertainment, chatting)	19 14	19
	Others		14
	No answer	21	21
	2~3cups/day	18	18
	1cup/day	33	33
Number of cups of coffee	1cup/2 days	19	19
-	Others	28	28
	No answer	2	2
	Starbucks	48	48
	Coffee Bean	13	13
Most favored coffee brand	Hollys	6	6
	Others	27	27
	No answer	6	6
	Brand image	22	22
Paggang for drinking the soffee	Taste	27	27
Reasons for drinking the coffee brand	Design	3	3
Dianu	Others	37	37
	No answer	11	11
Total		100	100

2. Comparison of differences in color image between online and offline coffee shops

Generally, many items showed statistically significant differences in color image between online and

offline coffee shops.

Table 3 Comparison of differences in color image between online and offline coffee shops

	Online			Offline				
	number of cases	mean	standard deviation	number of cases	mean	standard deviation	t	p
luxurious	300	3.41	1.009	300	3.68	.916	-3.473	.001*
dynamic	300	3.15	1.065	300	3.19	1.114	-0.450	.653
sweet	300	3.40	.967	300	3.42	.883	-3.09	.758
pleasant	300	3.42	.844	300	3.50	.832	-1.218	.224
young	300	3.68	.967	300	3.68	.973	-0.42	.966
modern	300	3.61	1.046	300	3.74	1.024	-1.539	.124
good	300	3.40	.947	300	3.66	.906	-3.392	.001*
expensive	300	3.38	.993	300	3.60	.925	-2.808	.005*
favorite	300	3.22	.950	300	3.39	.927	-2.131	.034*
want to drink	300	3.29	1.072	300	3.51	.980	-2.664	.008*
beautiful	300	3.18	.836	300	3.33	.847	-2.183	.024*
valuable	300	3.12	.873	300	3.28	.834	-2.248	.025*
suitable	300	3.32	.916	300	3.44	.873	-1.688	.092**
functional	300	3.20	.970	300	3.38	.859	-2.450	.015*
noticeable	300	3.34	1.099	300	3.45	1.022	-1.270	.205
brand differentiator	300	3.24	1.071	300	3.29	1.059	-0.498	.619
stays longer in your memory	300	3.18	1.063	300	3.33	1.021	-1.763	.078**
friendly	300	3.34	1.046	300	3.20	.995	1.640	.102
there is demand to visit	300	3.15	1.083	300	3.37	1.070	-2.503	.013*
well match with	300	3.45	1.101	300	3.68	.938	-2.754	.006*
	dynamic sweet pleasant young modern good expensive favorite want to drink beautiful valuable suitable functional noticeable brand differentiator stays longer in your memory friendly there is demand to visit well match with	luxurious 300 dynamic 300 sweet 300 pleasant 300 young 300 modern 300 good 300 expensive 300 favorite 300 want to drink 300 beautiful 300 valuable 300 suitable 300 functional 300 noticeable 300 brand 300 differentiator stays longer in your memory friendly 300 there is demand to visit well match with 300	number of cases mean of cases luxurious 300 3.41 dynamic 300 3.40 pleasant 300 3.42 young 300 3.68 modern 300 3.61 good 300 3.40 expensive 300 3.22 want to drink 300 3.29 beautiful 300 3.12 suitable 300 3.12 suitable 300 3.20 noticeable 300 3.24 brand differentiator 300 3.24 stays longer in your memory 300 3.18 friendly 300 3.34 there is demand to visit 300 3.15	number of cases mean of cases standard deviation luxurious 300 3.41 1.009 dynamic 300 3.15 1.065 sweet 300 3.40 .967 pleasant 300 3.68 .967 modern 300 3.61 1.046 good 300 3.40 .947 expensive 300 3.38 .993 favorite 300 3.22 .950 want to drink 300 3.22 .950 want to drink 300 3.18 .836 valuable 300 3.12 .873 suitable 300 3.32 .916 functional 300 3.20 .970 noticeable 300 3.24 1.071 brand differentiator 300 3.18 1.063 stays longer in your memory 300 3.34 1.046 there is demand to visit 300 3.45 1.101 <	number of cases mean of cases standard deviation number of cases luxurious 300 3.41 1.009 300 dynamic 300 3.15 1.065 300 sweet 300 3.40 .967 300 pleasant 300 3.68 .967 300 modern 300 3.61 1.046 300 good 300 3.40 .947 300 expensive 300 3.38 .993 300 favorite 300 3.22 .950 300 want to drink 300 3.29 1.072 300 beautiful 300 3.12 .873 300 valuable 300 3.32 .916 300 suitable 300 3.20 .970 300 noticeable 300 3.24 1.071 300 brand differentiator 300 3.18 1.063 300 stays longer in you	number of cases mean of cases standard deviation cases number of adviation cases mean deviation cases luxurious 300 3.41 1.009 300 3.68 dynamic 300 3.15 1.065 300 3.19 sweet 300 3.40 .967 300 3.42 pleasant 300 3.68 .967 300 3.50 young 300 3.68 .967 300 3.68 modern 300 3.61 1.046 300 3.74 good 300 3.40 .947 300 3.66 expensive 300 3.38 .993 300 3.60 favorite 300 3.22 .950 300 3.31 beautiful 300 3.18 .836 300 3.33 valuable 300 3.12 .873 300 3.44 functional 300 3.24 1.071 300 3.45 <t< td=""><td>Inumber of cases mean of cases standard deviation number of cases mean deviation standard deviation Iuxurious 300 3.41 1.009 300 3.68 .916 dynamic 300 3.15 1.065 300 3.19 1.114 sweet 300 3.40 .967 300 3.42 .883 pleasant 300 3.68 .967 300 3.68 .973 modern 300 3.61 1.046 300 3.74 1.024 good 300 3.40 .947 300 3.66 .906 expensive 300 3.38 .993 300 3.60 .925 favorite 300 3.22 .950 300 3.39 .927 want to drink 300 3.18 .836 300 3.33 .847 valuable 300 3.12 .873 300 3.38 .859 noticeable 300 3</td><td>Iuxurious 300 3.41 1.009 300 3.68 .916 -3.473 dynamic 300 3.15 1.065 300 3.19 1.114 -0.450 sweet 300 3.40 .967 300 3.42 .883 -3.09 pleasant 300 3.42 .844 300 3.50 .832 -1.218 young 300 3.68 .967 300 3.68 .973 -0.42 modern 300 3.61 1.046 300 3.74 1.024 -1.539 good 300 3.40 .947 300 3.66 .906 -3.392 expensive 300 3.22 .950 300 3.30 .925 -2.808 favorite 300 3.22 .950 300 3.33 .847 -2.131 want to drink 300 3.18 .836 300 3.33 .847 -2.183 valuable 300</td></t<>	Inumber of cases mean of cases standard deviation number of cases mean deviation standard deviation Iuxurious 300 3.41 1.009 300 3.68 .916 dynamic 300 3.15 1.065 300 3.19 1.114 sweet 300 3.40 .967 300 3.42 .883 pleasant 300 3.68 .967 300 3.68 .973 modern 300 3.61 1.046 300 3.74 1.024 good 300 3.40 .947 300 3.66 .906 expensive 300 3.38 .993 300 3.60 .925 favorite 300 3.22 .950 300 3.39 .927 want to drink 300 3.18 .836 300 3.33 .847 valuable 300 3.12 .873 300 3.38 .859 noticeable 300 3	Iuxurious 300 3.41 1.009 300 3.68 .916 -3.473 dynamic 300 3.15 1.065 300 3.19 1.114 -0.450 sweet 300 3.40 .967 300 3.42 .883 -3.09 pleasant 300 3.42 .844 300 3.50 .832 -1.218 young 300 3.68 .967 300 3.68 .973 -0.42 modern 300 3.61 1.046 300 3.74 1.024 -1.539 good 300 3.40 .947 300 3.66 .906 -3.392 expensive 300 3.22 .950 300 3.30 .925 -2.808 favorite 300 3.22 .950 300 3.33 .847 -2.131 want to drink 300 3.18 .836 300 3.33 .847 -2.183 valuable 300

^{(*}p<.05, **p<.10)

Color image of online and offline coffee shops showed significant results at a 95% confidence level (α =0.05) for 'physical attributes' such as 'luxurious-low class', 'good-bad', 'like-dislike' and 'want to drink-don't want to drink'. In particular, physical attributes of color image were higher in number for offline shops than in online shops. 'Attributes with information delivery function' such as 'beautiful-ugly', 'valuable-worthless', 'demand to visit-no demand' and 'well match with the brand-no match' also showed significant results at a 95% confidence level (α =0.05). In addition, attributes of 'suitable-nonsuitable', 'stays longer in memory-short memory' showed significant result at a 90% confidence level (α =0.10). Similarly, 'attributes with information delivery function', which showed significant results, were more positive in offline shops than in online shops.

3)-3. Color image types of coffee brand shops

Color images of three coffee brands were measured using the five-point Likert scale on ten items each from 'physical attributes' and 'attributes with information delivery function' to identify color image types of coffee brands that Korean consumers recognize.

SPSS 11.5 statistics package was used to analyze the measured results. Then, Factor Analysis, suitable for identifying the dimensions of items implicit in the attributes of color image, was conducted. Commonly, a minimum eigenvalue, which acts as a baseline in choosing factors, of '1' is used. However, considering that this is an initial research in this field, minimum eigenvalue of 0.8 was used to track wide and various relation types. In order to easily interpret factors while maintaining mutual independence among factors, varimax was utilized.

Color image types of online and offline shops analyzed using these methods are as follows:

1. Factor analysis result of 'physical attributes' of color image of coffee shops

Table 4 Factor Analysis of 'physical attributes' of color image of coffee shops

	factor analysis	result of 'physical att	ributes' of color image
measured factors	factor1	factor2	factor3
Luxurious	.756		
Good	.733		
Expensive	.730		
Want to drink	.710		
Favorite	.703		
Young		.856	
Modern		.834	
Sweet			.715
Pleasant			.629
Dynamic			.591
Eigenvalue	3.725	1.656	1.005
Explained variation(%)	37.246	16.561	10.051
Cumulative variation(%)	37.246	53.807	63.858
Cronbach's	.8149	.7411	.6349

Through Factor Analysis, it was found that there are three representative types, namely factor1, factor2 and factor3, of color image from 'physical attributes' of online and offline shops recognized by Korean consumers. 'Luxurious, good, expensive, want to drink, favorite' formed factor1 type, 'young and modern' formed factor2 type and 'sweet, pleasant, dynamic' formed factor3 type. In addition, it was found that the image dimension of three physical attributes accounted for about 64% of total variation.

Moreover, Cronbach's α by each color image sub-types for physical attributes of online and offline shops range from .6349 to .8149. Since this range satisfies the minimum baseline of 0.6 and above prescribed for social-science research, the confidence level of variables can be regarded as high.

2. Factor analysis result of 'attributes with information delivery function' of color image of coffee shop Table 5 Factor Analysis of 'attributes with information delivery function' of color image of coffee shop

Items measured	color images of brand coffee shop						
items measured	factor1	factor2	factor3	factor4			
brand differentiator	.814						
stays longer in memory	.794						
noticeable	.784						
beautiful		.837					
valuable		.836					
functional			.904				
appropriate	-		.693				
friendly				.906			
demand to visit				.647			
Eigenvalue	3.823	1.193	.945	.864			
Cronbach's	.7990	.7116	.6639	.6253			

According to Factor Analysis, it was found that there are four representative types, namely factor1, factor2, factor3 and factor4, of color image from 'attributes with information delivery function' of online and offline shops perceived by Korean consumers. The image attribute of 'brand differentiator, stays longer in memory and noticeable' formed factor1 type, 'beautiful, valuable' formed factor2 type, 'functional, appropriate' formed factor3 type and 'friendly, demand to visit' formed factor4 type. On the other hand, it was found that the attribute of 'match well with brand coffee' does not fall under attributes with information delivery function.

The four image types of information delivery function account for about 76% of the total variation.

Cronbach's α by each color image sub-types for attributes with information delivery function of online and offline shops range from .6253 to .7990. Since this range satisfies the minimum baseline of 0.6 and above prescribed for social-science research, the confidence level of variable can be regarded as high.

3)-4. Color image differences by types between online and offline coffee shops

The t-test, a descriptive statistics, was conducted using SPSS 11.5 for Windows statistics package to see if there are differences between online and offline coffee shops in types of physical color image and color image with information delivery function, which was found as a result of factor analysis in research exercise 3.

 Comparison of color image differences between online and offline shops by 'types of physical color image'

Table 6 Comparison of differences by types of physical color image between online and offline coffee shops

	Online				Offline			
	number of cases	mean	standard deviation	number of cases	mean	standard deviation	- •	P
factor1	300	3.341	.771	300	3.568	.679	-3.830	.000*
factor2	300	3.645	.894	300	3.712	.895	-0.913	.362
factor3	300	3.322	.705	300	3.371	.672	-0.870	.385

^{(*}p<.05)

The analysis results show that image differences by types of physical color image between online and offline shops were significant for factor1 at a 95% confidence level (α =0.05). This means that factor1 image item is more positive in offline shops than in online shops.

2. Comparison of color image differences between online and offline shops by 'types of color image with information delivery function'

Table 7 Comparison of differences in color image with information delivery function between online and offline coffee shops

	Online			Offline	Offline			n
	number of	mean	standard	number of cases	mean	standard		
factor1	300	3.252	.916	300	3.353	.867	-1.389	.165
factor2	300	3.152	.734	300	3.305	.758	-2.518	.012*
factor3	300	3.257	.809	300	3.410	.755	-2.399	.017*
factor4	300	3.245	.919	300	3.287	.877	-0.568	.570

^{(*}p<.05)

The analysis results show that image differences by types of color image with 'information delivery function' between online and offline shops were significant for factor2 and factor3 at a 95% confidence level (α =0.05). This means that both factor2 and factor3 image items are more positive in offline shops than in online shops.

3. Results and Discussions

This research studied the brand coffee drinking patterns of people in their early 20's and 30's in Korea, which are effected by color images of on- and off-line coffee shops. Within the research scope, the most favored brand of coffee was Starbucks, followed by Coffee Bean and Hollys. (The same result was achieved in 2003 research conducted by myself.) The survey results show that Starbucks received highest points in terms of online color image, followed by Coffee Bean and Hollys. The same was with offline color image. Survey respondents number one reason for drinking a particular brand of coffee was brand image, second taste and third design. Considering the brand image ranking and reasons for drinking coffee, brand image is found to be an important factor that will directly lead to a purchase of that particular brand of coffee.

The analyzed survey result of brand coffee color image is two fold.

First, the physical color image attributes of 'luxurious-low class', 'good-bad', 'expensive-cheap', 'like-dislike' and 'want to drink-don't want to drink' were higher in points in offline shops than in online shops. Likewise, the attributes with information delivery functions such as 'beautiful-ugly', 'valuable-worthless', 'demand to visit-no demand', 'well match with the brand-no match', 'suitable-nonsuitable' and 'stays longer in memory-short memory' were higher in points for color image in offline shops than in online shops. In other words, online image falls behind offline color image. Therefore, carefully planned color design is required when integrating color strategies for online and offline.

Second, a selected color design may induce consumers to have positive or negative perception of brand color image. When the selected color design is successful in inducing positive perception, the color image

can enhance brand image.

4. Conclusions

This research studied consumers' perception of brand image, and, by analyzing the result of this study, identified the difference between brand image indirectly perceived by consumers through website and brand image offline. During this process, it was found that color image can change very fluidly despite the fact that images shared same physical design features. In other words, this suggests that fixed colors require adequate management although the color already has advantages or consumers perceive the color image to be favorable.

It was also acknowledged through research results that if choosing an image to integrate on- and off-line color image, one has to be cautious when using the color or image already being used in coffee shops. This is because if not effectively used the color or image brought in from shops may not have the wanted brand color image offline. Though the image has already been used in shops, it cannot be considered to suggest the same color image. Therefore, the designer is required to make a logical choice of color or image

References

- [1] Marc, Gobe, 2002, Emotional Design Emotional Branding, Kim and Kim Books, Seoul Korea.
- [2] John, Brockman, and Golden, Branch, 2000, The Powerful Elite of the Digital Age.
- [3] Kim, Jung II, 1991, Brand Naming, Dongmunsa, Seoul Korea.
- [4] Howard, Schultz, and Dori Jones, Yang, 1999, Starbucks, Pour Your Heart Into It, Kimyoungsa, Seoul Korea.
- [5] Park, Jin Bae, 1999, Dr. Park, Jin Bae's Design Powerplay, Bosung Publishing, Seoul Korea.
- [6] Chung, Soon Tae, 1984, Theory on Marketing Management, Bobmunsa, Seoul Korea.
- [7] Kyung, No Hoon, 1998, Visual Design and Brand Image, Yae Kyung, Seoul Korea.
- [8] Fuji, Satoru Author, Kim, Bok Young Translation, 1994, The Psychology of Shape and Aesthetics, Johyungsa,

Monthly Publications and Periodicals

- [9] Lee, Myung Hoon, 2000, October Issue, Advertising Information: Changes in Media Environment and the Advertising Industry, Seoul Korea.
- [10] Horowitz, I.A. and Kaye R. S., 1975, "Perception and Advertising", Journal of Advertising Research,
- [11] Park, So Hyun, 2000, Research on Korea's N-generation Color Association and Symbolism, Hong Ik University Graduate School of Industrial Art, Seoul Korea.
- [12] Seo, Dong Jin, 2001, Research on Digital Media Space for the Emotional Community, Hong Ik University Graduate School of Industrial Art, Seoul Korea.
- [13] Lee, Sang Ha, 2001, Research on Strategy for strengthening Brand Image, In Ha University Graduate School of Business, Seoul Korea.
- [14] Lee, Ji A, 2002, A Research on the Color Strategy of Brand-name Coffees, Sook Myung Women's University, Seoul Korea.
- [15] Lee, Gun Pyo, 1987, Research on Design Methodology, Moongyobu Treatise, Seoul Korea.
- [16] Chang, In Sook, 1987, Study on the Semantic Differential Method's Handle Image, Pusan Polytechnic University,
- [17] www.iri.co.kr