

## The Study about Visual Environment in Fashion Store (Part I) - Focusing on the Elements of Store Visual Environment -

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### 패션 점포의 비주얼(visual)환경에 관한 연구 (제1보)

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#### Abstract

The visual environment of the retail store is an important factor to attract consumers to the store, to satisfy consumers, and finally to increase retailers' profits. This study focused on store visual environment influencing consumer behavior. First, how store environment influenced time that consumers spent in a retail store was examined. Next, visual environment elements of the store that consumers perceived important were identified and the elements of store visual environment preferred by consumers characteristics were examined. Through the result of this study, retailers can realize importance of store visual environment and can also use the findings to establish a new visual merchandising policy of the store or to improve the store environment newly.

**Key words:** Consumer behavior, Consumer characteristics, Store visual environment, The elements of store visual environment; 소비자 행동, 소비자 특성, 패션 점포의 비주얼 환경, 비주얼 환경 요소

### I. Introduction

In the retail industry, store environments have been recognized as an important factor in attracting consumers and stimulating product purchases(Babin & Darden, 1995; Baker, Grewal, Parasuraman & Voss, 2002; Bitner, 1992; Carusone & Moscové, 1985; Mehrabian, 1976; Turley, 2000). Thus numerous researchers have concerned about this issue on store environments. Some researchers(e.g., Areni & Kim, 1994; Boyce, Loyd, Eklund & Brandston., 1996; Fiore, Yah & Yoh, 2000; Hoyer, 1984) have observed influence of visual environment elements such as light, music, and other factors in real store environment in relation to consumer behavior. Whereas other

researchers(e.g., Boyce, Loyd, Eklund & Brandston, 1996; Cuttle & Brandston, 1995; Fiore et al., 2000; Herbert, 1997) have tried to predict consumer responses to designed store environments.

However, the general conclusions from these studies is that consumers behaviors are complex and therefore, difficult to predict. For example, the same store environment can lead to different individual responses resulting from different demographic and psychographic characteristics and also, consumers are influenced by various factors such as customer service, store location, store hours, and retail competition other than the store environment(Bitner, 1992).

This study examined effects of consumer traits in

a store environment. First, how consumers general perception on store visual environment influenced on time spent in store was investigated. And then, concrete visual environment factors of store(store displays, store layout, lighting, signage, etc.) influencing on consumer behavior were identified. And also, the elements of store visual environment preferred by consumers characteristics such as demographics, frequency and expenditure of clothing shopping per year and a main purpose of shopping were examined.

The results of this study provide retailers with perception of importance on store environment and assist retailers to establish a store design and visual strategies to be more competitive.

## II. Literature Review

### 1. The Influence of Store Environment on Consumer Behavior

Numerous researchers(e.g., Bickman et al., 1973; Holahan, 1978; Ittelson, Franck & O'Hanlon, 1976; Mehrabian & Russell, 1974; Russell & Ward, 1982) have addressed the relationship between human behavior and built environments in various contexts. Much of the early research in this field focused on institutional living environments(e.g., Bickman et al., 1973; Holahan, 1978). For example, Bickman et al.(1973) found that the social behavior of students who lived in high-rise housing was less positive, more uncooperative, more irresponsible, and more unfriendly than that of students who lived in low-rise buildings. And also, Holahan(1978) studied about hospital environments influencing patient behavior.

More recently a number of researchers(e.g., Areni & Kim, 1994; Bitner, 1990; Boyce et al., 1996; Donovan & Rossiter, 1982; Fiore et al., 2000; Griffitt, 1970; Gulas, 1995; Hoyer, 1984) have specifically explored the relationship between store environment and consumer behavior. Some studies have examined the influence of store environment as a whole on behavior, while others have explored the influence of

individual environmental variables, such as lighting, smell, music, temperature, and layout.

In general, researchers have concluded that consumers respond to planned design features positively by staying in a store longer and touching or picking up more merchandise. Especially, Mehrabian(1976) defined an individual reaction to physical environments in two ways: approach or avoidance. Approach behavior includes all positive behaviors that occur in response to a particular space, such as desire to stay longer, explore, work, and affiliate with others. Avoidance behavior involves the opposite types of behaviors.

On the basis of these theories, this study confirmed the influence of store environment on consumer behavior in a store. How consumers' perception on store visual environments and elements such as consumers demographic characteristics and general consumer behavior traits affected time spent in a store was examined.

### 2. The Elements of Visual Environment

Some researchers pointed out that retailers could use a store visual environment to make an emotional connection with consumers(Clark, 2002; Fenley, 2002). As we saw in a previous section, store visual environment is a very important part to attract and satisfy consumers. But we don't know how we can establish store environments systematically. So, comprehensive elements to construct visual environments of store should be identified. There were several researches attempted to identify whole elements of store visual environment.

Bitner(1992) defined dimensions of store physical environment by three objective factors: ambient conditions; spatial layout and functionality; and signs, symbols, and artifacts. Ambient conditions included background characteristics such as temperature, lighting, noise and music, and spatial layout and functionality referred to the arrangement of machinery, equipment, and furnishings. Signs, symbols, and artifacts were used to communicate information about a place to its users. And also,

Kuruville(1993) investigated differences of consumers' and retailers' perceptions in the following six factors: merchandising, service, facilities, atmosphere, convenience, and overall satisfaction in a study comparing consumers' and retailers' perceptions of a western-wear store.

The present study identifies visual environment elements that consumers perceive important comprehensively, and then identified elements are compared in relation to other aspects such as demographic characteristics, consumer behavior traits.

### **3. The Elements Influencing on Estimation of Store Visual Environments**

Consumers' responses on store environments are influenced by other various variables. For example, the same store environment can lead to different individual responses resulting from demographic characteristics(age, gender, ethnicity), psychographic characteristics(behaviors, values), individual personality traits, purpose for shopping and moods. Also, consumers are influenced by various factors other than the store environment such as customer service, store location, store hours, and retail competition (Bitner, 1992; Jeong, 2002).

These consumer variables would influence individual consumers' responses in store environments. Especially this study focused on the elements of store visual environment preferred by demographic characteristics such as age and gender, and general consumer behavior traits such as the frequency and expenditure of clothing shopping per year and a main purpose for shopping.

## **III. Methods**

Data were collected through survey from consumers just exiting clothing stores in downtown of Fort Collins, Colorado. Questionnaire included items about estimation on visual environments of store just exited, consumers' general perceptions on visual environment elements of the store, consumer shopping behaviors and demographics.

Items for estimation on visual environment of the store just exited were consisted of 6 items chosen from Kuruville(1993)<Table 1> and evaluated on a 7-point scale (1) strongly disagree to (7) strongly agree. And also, time spent in a just exited store was examined together.

Visual environment items were chosen from researches of Bitner(1992) and Kuruville(1993 ) and were evaluated on a 7-point scale (1) not important to (7) very important(Table 2).

Consumer shopping behavior traits included items such as the frequency and expenditure of clothing shopping per year, main purposes of shopping. These items were examined by 7-point scale to the extent to agree to each item

Demographics included age, gender, income, residence etc.

The consumer survey was conducted for 3 weeks in July 2003 and 246 adult customers were surveyed upon exiting clothing stores. 183 were female and 134 were male. Consumers less than 20 years old accounted for 5.1 % of the sample, 20 to 30 years 43.1 %, 31 to 40 years 19.5%, 41 to 50 years 14% and consumers over 51 years represented 18.3 % of the sample. And the majority(83.8%) of the sample was reported to have a college education.

## **IV. Results**

### **1. The Influence of Store Visual Environment on Time Spent in a Store**

Regression analysis was conducted to examine the influence of store visual environment on consumer behavior in the store. The combined influences of demographic characteristics, general consumer behavior traits and consumers' evaluation on visual environments of the store just exited(the independent variables) on the time consumers spent in a store(a dependent variable) were identified by regression analysis.

As shown in <Table 1>, the combined variables had impacts on the time consumers spent in the store. In store environment items, an item of general evaluation

**Table 1. The Influence of Consumers Estimation on Environment of Store just Exited, Demographic Characteristics and General Consumer Behavior Traits on Time Spent in the Store by Regression Analysis.**

Variables	Standardized Regression Coefficients ( $\beta$ )
<b>Demographics</b>	
Age	.117
Gender <sup>a</sup>	.165*
<b>General consumer behavior traits</b>	
The frequency of clothing shopping / a year	.087
The expenditure for clothing / a year	-.024
Main purposes of shopping	
Shopping for self	-.109
Shopping for others	.097
<b>Estimation on the store just exited</b>	
Exterior store signage	.148
A window display	.199
An in-store merchandise display	.035
Ease of movement throughout the store	-.264*
Specific store design feature	.098
The general store environment	.288**
<b>F</b>	<b>3.025**</b>
<b>R<sup>2</sup></b>	<b>.142</b>

\* $p \leq .05$ , \*\* $p \leq .01$ <sup>a</sup>treatment in dummy variable: Male : 0, Female: 1

on visual environments of the store just exited ( $\beta = .288$ ;  $p = .001$ ) and an item of ease of movement throughout the store ( $\beta = -.264$ ;  $p = .05$ ) were significant. And for demographic variables, gender ( $\beta = .165$ ;  $p = .05$ ) was resulted significant. For general consumer behavior traits, no item was presented significant. These variables combined to explain 14.2% of the variance ( $R^2 = .142$ ,  $F = 3.025$ ,  $sig. = .001$ ).

According to this result, consumers satisfied with store environments and females are likely to spend more time in the store than others do. As Mehrabian (1976) said that a pleasantly designed store environment enforced consumers approach behavior, the result of this study confirmed the influence of store environment on consumers approach behavior in the store. And also, as Bitner (1992) suggested that the same store environment could lead to different individual responses by consumers traits such as demographic and psychographic characteristics, individual

personality traits and moods, this study confirmed that consumers behavior in a store were different by demographic traits like gender.

And additionally, the easier movement throughout the store influenced the stay time in a fashion store negatively. That seems that uneasiness of movement in a store makes consumers stay longer. The longer consumer stay in a store, the bigger possibility of purchase gets. That is, uneasiness of movement in a store is necessary in a degree that consumers don't feel unpleasant for longer stay of consumers.

## 2. The Elements of Store Visual Environment

Factor analysis was conducted to identify elements of store visual environment. Reliability of scales was acceptable as coefficient alpha estimates range from .77 to .87.

Results of factor reduction with varimax rotation

**Table 2. The Factor Reduction of Store Visual Environment Elements Perceived Important by Consumers.**

Items	Factor Loading	Eigen Values	Percent of variation (%)
<b><i>Store design</i></b>		<b>8.50</b>	<b>42.48</b>
Mannequins/body forms	.76		
Design materials, colors and textures of floor and wall	.68		
Store signage	.67		
Locations of sales counter	.59		
Store lighting	.55		
Store window displays	.52		
Store design/decor	.43		
<b><i>Store convenience</i></b>		<b>1.67</b>	<b>8.32</b>
Store cleanliness	.76		
Store Layout	.68		
Ease of interaction with store employees	.59		
Ease of movement throughout store	.51		
<b><i>Easiness of product estimation</i></b>		<b>1.32</b>	<b>6.58</b>
Customer seating areas	.79		
Product trial	.75		
Fitting room	.68		
Point of purchase displays	.52		
Product display fixtures	.43		
<b><i>Mood</i></b>		<b>1.16</b>	<b>5.80</b>
Smell or scent in store	.80		
Background music	.71		
Art work and/or artifacts	.59		
Temperature of store	.55		

are presented in (Table 2). Four dimensions relating to visual environments of store were identified: Store design(mannequins/body forms, design materials, colors and textures of floor and wall, store signage, location of sales counter, store lighting, store window displays, store design/decor), store convenience(store cleanliness, store layout, ease of interaction with store employees, ease of movement throughout store), easiness of product estimation(customer seating areas, product trial, fitting room, point of purchase displays, product display fixtures), mood(smell or scent in store, background music, art work and/or artifacts, temperature of store).

A store design factor accounted for 42.48% of the variance, followed by store convenience(8.32%), easiness of product estimation(6.58%), and mood (5.80%).

To compare this factors to Bitner(1992) who defined dimensions of store physical environment by three objective factors: ambient conditions; spatial layout and functionality and signs, symbols, and artifacts, design factor is similar to signs, symbols, and artifacts factor and spatial layout and functionality factor. Mood is same to ambient conditions. And also, spatial layout and functionality shows feature like convenience, easiness of product estimation factors. But service dimension such as convenience, product estimation was fragmented more in this study.

### **3. The Elements of store Visual Environment Preferred by Consumers' Traits**

As previous researchers presented that consumers' responses on store environments are influenced by

other various variables such as demographic characteristics(age, gender, ethnicity), psychographic characteristics(behaviors, values), individual personality traits, purpose for shopping and moods(Bitner, 1992; Jeong, 2002). These consumer variables influenced preference on store environment.

### 1) Demographic characteristics

Pearsons correlation test was conducted to investigate differences in the elements of store visual environment preferred by demographics. Results of correlation are presented in (Table 3).

Results were found that younger people perceived the store convenience factor more important than did older people, whereas older people thought the mood factor more important than did younger people. Therefore, retailers considering young people as main targets should give more consideration about especially the convenience of the store. On the contrary, retailers having older people as main targets should try to improve store mood.

Female showed the tendency to consider the mood factor more than did male. Retailers thinking of female as a main target group need to give more consideration to mood in store visual environments.

And higher incomer considered the store convenience factor more than lower incomer. This seems to result from high concern about time of high incomers. For higher incomers who think time value important, the store convenience aspect is very important.

### 2) Consumer shopping behavior traits

Pearson's correlation test was conducted to identify the relationship between preferred store visual environment elements and general consumer shopping behavior traits. Results of correlation are presented in (Table 4).

As shown in the Results, the frequency and expenditure of clothing shopping per year didn't influence significantly on consumers behavior in a store. But when consumers shopped for others, the store design factor was perceived more important than in shopping for self.

Therefore retailers managing products for males and kids or presents purchased mainly by housewife should consider the store design factor such as store lighting, store window displays and store design/décor more important than any other elements for consumers' choice.

**Table 3. The Correlation between Important Elements in Store Visual Environment and Demographic Characteristics.**

Factors	Age	Sex <sup>a</sup>	Income
Store design	-.014	.016	-.047
Store convenience	-.312**	.060	.221**
Easiness of product estimation	-.018	.047	.003
Mood	.132**	.144**	-.115

\*\* $p \leq .01$

<sup>a</sup> treatment in dummy variable: Male: 0, Female: 1

**Table 4. The Correlation between Important Elements in Store Visual Environment and Consumers Shopping Behavior Traits.**

Factors	Frequency of Clothing Shopping / A year	Expenditure of Clothing Shopping / A year	Purpose of Shopping	
			For self	For others
Store design	-.035	.094	.108	.131*
Store Convenience	-.025	.008	.063	.060
Easiness of product estimation	.007	.066	.103	.077
Mood	-.092	-.036	-.105	-.003

\* $p \leq .05$

## V. Discussion

### 1. Implication for Retailers

The purpose of this study was to investigate about store visual environment influencing consumer behavior. The results of this study on store visual environments can be used very practically to retailers.

First, the influence of store environment on time that a consumer spent in a retail store was confirmed. Through this result, retailers can realize to consider a visual environment aspect of store as an important element to achieve increased revenue of store.

Next, in this study, comprehensive visual environment elements of store were identified. When retailers intend to improve a store environment, these elements can be checked in each factor systematically.

And then, the store visual environment elements preferred by consumer characteristics were examined. According to the results, younger people considered a store convenience factor such as store cleanliness, store layout, ease of interaction with store employees and ease of movement throughout store more important than older people did, and older people perceived the mood factor more important than younger people. Therefore retailers should set up their stores considering the age of target customers. And females thought the mood factor more important. Retailers regarding female as a main target group should take interest in the store mood factor. Higher incomers showed the tendency to consider the store convenience factor more important. Retailers regarding higher incomers as main targets should try to improve store convenience aspect. Finally, results were found that in case of shopping for others, consumers perceived the store design factor more important than did in shopping for self. In the case of the products for males and kids or presents mostly purchased by agents like housewives, the aspect of store design should be taken into more consideration.

### 2. Limitation and Direction for Future Research

This study was surveyed in a small community in

U.S. Future researchers are recommended to collect data in a few cities to have enough sample size to enhance the understanding of consumers' perceptions on store environments.

And just a few elements were examined to see relationship between store visual environment elements and consumers traits in this study. But there are many evidences that various elements influence on consumers behavior in the store(e.g., Areni & Kim, 1994; Bitner, 1990; Boyce et al., 1996; Donovan & Rossiter, 1982; Fiore et al., 2000; Griffitt, 1970; Gulas, 1995; Hoyer, 1984). For instance, consumers' traits such as shopping tendency and consumers' psychological traits etc. can affect consumers' behaviors in the store. Therefore these various elements influencing on consumers' behavior can be examined more. As explained by various elements, consumers' behavior in the store would be understood more comprehensively.

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## 요 약

패션 점포의 비주얼(visual) 환경은 소비자를 점포로 이끌고, 최종적으로 구매를 유도하기 위해 매우 중요한 요소로 본 연구에서는 패션 점포를 방문하는 소비자들의 행동에 영향을 미치는 비주얼 환경 요소에 대하여 연구하였다. 먼저 소매 점포에서 점포의 비주얼 환경이 소비자들의 행동(점포에 머무르는 시간)에 미치는 영향을 조사하였고, 다음 실제 점포의 비주얼 환경의 차원은 어떻게 구성되는지, 또 구성된 요소 별로 소비자 특성에 따른 선호의 정도는 어떻게 다른지 살펴 보았다. 그 결과 패션 점포의 비주얼 환경이 실제 소비자들의 패션 점포에서의 체류 시간에 영향을 줄을 확인하였다. 또 비주얼 환경의 요인으로써 디자인, 편리성, 상품 평가의 용이성, 분위기의 4가지 차원을 규명하였고, 소비자 특성에 따라 선호되는 요인이 특성 별로 다름을 확인하였다. 본 연구의 결과를 통해 소매 점포에서의 비주얼 환경의 중요성을 확인할 수 있고, 실제 점포의 비주얼 정책 수립과 점포 비주얼 환경의 개선에 도움을 줄 수 있을 것으로 생각된다.