The Analysis of Store Image Concerning the Visual Point Tacking of the Consumers on Viewing the Window Display

Wen-Cheng Wang[1], Ying-Hsiu Chen[2], Chen-Yuan Kao[3]
Department of Business Management[1], Department of Industrial Design[2][3]
Hwa Hsia Institute of Technology[1], National Cheng Kung University[2][3]
111 Gong Jhuan Rd., Chung Ho, Taipei, Taiwan, R.O.C[1],
No.1, University Road, Tainan City 701, Taiwan, R.O.C[2][3]
Taiwan[1][2][3]
wcwang@cc.hwh.edu.tw[1], p3897103@mail.ncku.edu.tw[2], p3895105@mail.ncku.edu.tw[3]

Abstract: - The models of global economy, society, culture and business have changed greatly as a result of the improvement of scientific development and the standard of living. Window display has propagandized media effect. Consumers can get fashion information from shop windows; stores can attract consumers and stimulate their purchase desire. The main purpose of window display is to attraction consumer's attention, deliver the product's information and induce consumer's memory connection. Therefore, vision composition of window display can create psychological feeling and emotion and it will be the first store image information received by consumers; it mainly influences consumer's decision of whether to stay or make a purchase and so it turns out to be the key factor which determines the success of window display. This research is based on the multitudinous conditions of the vision requirement and the numerous complicated formations of the window display in order to satisfy the visual perception. Through the measurement of the eye-tracker equipment (Face Lab), we seek to understand while the consumers are viewing the window display, how can the various design affect the visual focus and the route production of the consumers. Therefore, it is known through the result of this research's experiment that 1) when the subject is viewing the windows display, the first visual focus is placed on the central position of the windows, and the visual tracking is been emphasized on the displayed products; 2) The different display position of the products will cast an effect on the concentration distribution of the subjects when viewing the window display; 3) generally speaking, when the subjects are viewing the window display samples, the order of the first five fixation points of the visual tracking transit in a clock-wise direction, the first is to view the displayed products, and then it's the project, the properties and the background of the theme; 4) the difference in the design of the window display is the cause for the different visual landing-points of the consumers, moreover, the concentrated region of the visual tracking will be different as well.

Key-Words: - Store Image, Window Display, Eye Tracking

1 Introduction

After Boulding [1] first brought forward the concept of "**Image**" many scholars studied this concept by applying it to the field of consumer psychology; all of them believed that consumers react according to the fact which they trust and undertake their consumer behavior based on store image. Dodds et al. [2] considered store image has significant influence on consumer behavior and store image appraisal can influence consumer's buying will. Grewal et al. [3] mentioned that characteristics of store's consuming environment, service level and product quality provided the so-called store image. Kapferer [4] defined store image as the guideline of certain store mode and store property in consumer's idea; it was composed by visible entity, individuality, culture, relation, image reflection and consumer's personal interest; it included two properties: store's functional particularity and store's psychological atmosphere. Store's functional particularity is opinion of store's visible character; it is basically composed of the store factors namely product selection, level of price, credit system, product display and other objective quality. The psychological property of store atmosphere is the mental feeling of invisible store atmosphere; it is the feeling summed up as ascription sense, calefaction, affability, excitement or entertaining.

The key determining factor of gateway no longer depends on the price and specification of information products. When the product itself makes no difference, brand image needs to be created by unique design of the store's atmosphere and utilize window display to produce added value

to the products. Window display can attract consumer to buy, provide information of the product and the related fashion; it also has the function of welcoming, tempting and selecting the consuming property. Window display is the first primary space which will make contact with consumers. Consumers spend averagely only few seconds on watching and considering while they pass by the shop's window [5] so window display space must possess characteristics of instant transmission and connects the store image to store consumers clearly and rapidly with information; it is also important to take space display methods into account and show imago and tactics in order to enhance the vision effect of window display. Window display needs to be in the position of the consumer's behavior model, update continuously and exhibit abundant originality so that it can induce consumers to enter into the store and while they make purchases which also increase store's competitive power. The most challenging issue for an operator is how to enhance store image upon the desired consumers, exhibit shop window's individuality and create popular topics to attract consumer's attention. Effective window not only can promote the whole brand image but also increases the sales transaction achievement.

Samli et al. [6] pointed out that during the past 40 years scholars has been interested in store image research especially using complicated geodesic method or demonstration of past research result [7]. Kunkel & Berry [8] simply investigated the composition concept and definition of store image and compare the store image between retail competitors in order to infer related management information. Mazursky & Jacoby [9] used different technique, measuring method and sequence to measure store image. Laaksonen [10] paid attention to the study of store image and store loyalty degree. We can see some important particularizes by concluding from the above scholars:

a. **Store image is people's subjective point of view towards store.**
b. **Store image is personal perception and not a fixed emotional element; it might be influenced by the other factor and changes.**
c. **Store image is the constructing surface by consumer's perception; it includes store's visible functional factor and invisible psychological factor.**
d. **Store image is store's panorama view in people's heart.**

Image is always considered as invisible, without a fixed form, inexplicit and unable to be measured substantially; this idea influences the concept of store image. Before consumers enter the store to buy, they might change their mind by bad feeling; they also might intend not to enter the store at first but decided later to enter and buy because of the good image of window display or atmosphere [6, 11]. Window display expressed the external characteristics of a store's management concept, level of service and method of filtering customers because the store image contains store's functional characteristics, consumer's psychological property, store image as consumer's massive feeling towards the store, consumer's selecting and integrating the important characteristics and consumer's store feeling can be influenced by time, experience of store and the comparison with other stores. Thus, there are two functions for window display: 1) to display the main marketing products; 2) to attract the consumer to enter and buy. Window display can offer consumers a lot of fashion information such as the currently popular products or special products. The particularity of store function is product selection, price level, credit system, product arrangement and other objective quality factors. The atmosphere of store psychological property is the feeling of adscription, warmth, affability, excitement or interest. Store image concept is the store's entire combination of functionality and feeling; these characteristics and property are combined and brought into their perception system which decides the expectation towards certain store's entire policy and actual practice [12].

Information can be discussed in various forms, and different forms seem to suit different application domains. This may justify the existence of these different forms [13]. The purpose of window display is to attract consumer's attention, transfer information of displayed product and induce consumers to enter and buy. McGoldrick [14] considered store's window display and atmosphere environment space can make a difference in consumer's feeling. Window display attracts consumers with price sensitivity if it exhibits the special offer products; if it exhibits some dazzling products it can only attract the sight of passerby. There are three types of main design: 1) to attract consumer to enter by the advertising board of certain brand, brand image can increase advertising effect; 2) to impress consumer's with store image by a particular display and enhance purchase desire; 3) to present the entire display of the store by using transparent shop window and let the consumers to feel the entire environment which is clean and clear before entering the shop and this kind of effect is good and positive.

Therefore, the display method, the image and the technique of the intended expression are something not to be neglected when it comes to attract the attention from the consumers, and all those are purely for the elevation of the visual effect of the window display. Ideas that are more creative must be developed by the designer as elements to be added to the intended expression and the overall visual effect performance of the design of the window display, these ideas should first be materialized into some forms that are capable of being display, and with them, the processing concepts of the practical 3-D space will be applied so that everything will be concretely displayed before the consumers in order to reach the visually-promoted intention to sale. The main purpose of the investigation in this reach is: 1) to investigate the relationship of preference on the display forms of the window display and the degree of visual satisfaction; 2) to examine the preferred design factors of the window display as exhibited by the consumers; 3) to understand the main viewing visual-point of the consumers with regards to the three basic design forms of the window display.

2 THE VISION COMPOSITION OF WINDOW DISPLAY

Window display is mainly for arousing consumer's resonance or echo; it can form tensional inherence life by the combined tension particularity of shape, color, light, space, location, sound effect and scene in addition to utilization of vision composition theory. Moreover, window display produces immediate effect because the course of consumer's contacting the window display until their instant decision about entering the store is very brief; the result shows in no time at all. Thus, the tension expressivity should be able to force the consumer's attention. The analysis principle of vision composition can be divided to four factors [15]:

a. **Equilibrium:** In an equilibrium composition of picture, factors such as molding, direction and location are closely linked to each other and can not be changed; each one is equally important. All perceptive activities are perceptive judgments and are connected to each other. Hence, direction is influenced by the location; any factor composition of a picture can attract the object around it and direct that object no matter if this factor is a spot in a hidden structure or a visible thing.

b. **Modality:** Modality means certain connotation that exists exteriorly of itself; it is the overall form which includes style of shape, size, proportion or color which we obtain from observing or remembering something. Form is one of the particularities which are grasped by eyes; it also sculpts in a consumer's mind the appearance of an object. Object of three dimensioned space is shown by the appearance of two dimensioned plain space; the appearance of plain is shown by one dimensioned line space.

c. **Light:** Proper allocation of light source can unify and organize complicated forms; strong lateral light can be used to systematize the space. Shadow effect can be reached by using two dimensioned substance to express three dimension and depth; its space effect totally depends on the distribution of brightness. The incoherence of layered brightness creates a kind of abruptness in the space direction.

d. **Color:** All the visual images are presented by color and brightness. The contour line for defining the form comes from the brightness and shadows which are extended through eye's differentiating ability of brightness and color; it becomes the important factor of three dimensioned space form. Color expression is mainly based on association; all kinds of colors undertake material association and nonobjective association.

Window display is like numerous intricate advertising boards hanged along the street and it is full of business chance. How to attract consumer's attention and then reach the effective advertising benefit? Window display should stimulate consumer's five senses; it first arouses consumer's curiosity and interest then they have consumption desire and cause. Window display also helps promoting store image. The concrete methods to promote the interaction between store and consumer depends on the decoration, display, color, music, smell of the store's entire atmosphere, consumer's activity area, store space, store's special area; blending five senses to build perceptual consuming experience and utilize physical sense experience can be almost certain to make influence on consumer's contact point. Consumer can deepen their brand memory connection by using sensing experience towards the store and products then they can deepen their memory connection. Since the advertisements help the companies to create awareness and attitude towards a brand, they try all possible way to make sure that they reach the real customers and make the customers interacted with the businesses and their brands [16]. From another point of view, sensing experience is product's selling point; the keystone

and final goal are whether the procedure of sensory marketing can touch people's heart. Product display techniques, POP promotions, sales promotions and shop signboards are main high lights of design plan for building store's marketing atmosphere. Building store's marketing atmosphere can start with romancing store's atmosphere which includes utilization of the arrangement of color, music and odor to supplement marketing atmosphere; furthermore, creation of shopping atmosphere is done by using sales promotion, advertisement. Public media is used to broadcast the promotion information in order to have many people gathered at shop. Effective management of the marketing can guide the consumers to buy; durative process of marketing needs to be maintained for avoiding wasting of resources. Shop window and display technique can be designed according to the activity theme; effective display methods are used to reach the goal of attracting consumer's attention. Consumer's experience about store image can be explained in the following five types:

a. **Sense Experience:** Building the feeling of perception experience is done through functions of vision, hearing, touch, taste and smell to induce customer's motive, increase value of products and differentiate the company and product [17]. Window display can give a kind of experience of lifelikeness and beauty taste; it is called direct and real experience [18].

b. **Emotion Experience:** Temper and sensation are the two main factors of emotion experience [19]. Temper is a condition with unknown reason but a kind of sensation which has explicit reason including anger, envy and jealous of suspicious.

c. **Ponder Experience:** Ponder experience can be classified as a concentrated and decentralized type. Concentrated consideration requires some specific topic listing and clear mission explanation; marketing methods should be able to transmit the information to customers. Decentralized ponder uses idea associated with activity and vision image to provide customers the product's information in order to understand the demand of inducing these decentralized ponder [17].

d. **Action Experience:** Action experience emphasizes on creating customer's experience with relation to physical and longer-termed behavior model and life style [17].

e. **Correlation experience:** Correlation experience includes sense, emotion, ponder, and action experience; it requires correlation of idea, ego, other person or culture. Its goal is to establish strong brand connection and brand society [17].

3 The research index in the process of the eye-ball movement

Megaw & Richardson [20]; Neboit & Richardson [21] have both pointed out in the human factor engineering and application research concerning the data of eye-ball movement that the related factors of the eye-ball movement are as follows: 1) Fixation time: it is the sustained time when the eye-ball is in the gazing position, and the position of the center of the optic axial remained unchanged. It is the time from the completion of one saccade eye movement till the next one; 2) Fixation count: It is the number of the items noticed when the eye is in the gazing position; 3) Sequence of the fixation point: It is the relationship in the sequence of the fixation points. The scan path is formed when the continuous fixation sequence is combined with the saccade eye movement; 4) The interval or the distance of the fixation point: It is the distance between the fixation points which under a static condition is similar to that of the amplitude of vibration of the saccade eye movement. It also means the valid observation range for every fixation point; 5) The space distribution of the fixation point: The frequency distribution of the fixation points in the overall search region; 6) The angle of the saccade eye movement: It is the range of the angle when the eye-ball shifts from one fixation point to the next one, also known as the range of the saccade eye movement; 7) The direction of the eye-ball movement: It is the frequency of both the horizontal and vertical saccade eye movement; 8) Rate of the saccade eye movement: It is the unit time of the eye-ball shifting from one fixation point to the next one.; 9) Size of the pupil: Visually speaking, size of the pupil when it reacts is a measurement of the psychological sensitivity which serves as a physiological norm.

3.1 Method of experiments

This research takes the samples of the window display design as the research targets, and three different window displays are formed. With the application of the laboratory experimentation, the relationship between the setup of the window display and the visual tracks of the consumers is investigated.

3.2 Targets of the experiment

This research utilizes Within-subjects designs and takes randomized sampling method to invite 15 subjects. The average age of the subjects is between the age of 20 to 40, no color-blindness and any other eye-related disease. Their eyesight after correction is above 0.8, and all has passed the fixation correction. The experiment takes three representative window displays as samples to proceed with visual evaluation.

3.3 Procedures of the experiment

There are three phases in this experiment. And the description of every procedure in each phase of the experiments is as follows.

3.3.1 The model and categorization of the collected window display forms

Based on the fundamental models of the window display techniques mentioned in the literature, related books on window display and web-site window display photos within the recent year have been collected in this phase. And the most appropriate is chosen as the thematic samples of the display. The photos which are too small, not enough resolution or exposed to too much light are rejected, and the photos must meet the standard which conforms to the sight of the view. The window display photos are then passed on to those research personnel with designing background and categorize the photos according to characteristics of the form of the window display., among them, the most representative of the form of the window display are chosen from every category and the analytic generalization of the condition of the form of window display is later carried out. These formed the designing basics of the window display design sample in the second phase.

3.3.2 The construction of the visual sample of the window display forms

Through the analysis of the window display forms in the first phase, the designing conditions are generalized and the window display design is carried out. The construction tool of the sample design is the software named Poser and with it, three visual samples of the form of representative window display are created. These samples serve as the testing samples of the degree of the visual satisfaction in the third phase.

3.3.3 The record of visual track and the visual satisfaction experiment of the consumers

According to the designing result in the second phase, the three representative window display samples are taken as the stimulus of the visual perception. First, the record of the eye movement tracks is made, and the samples are presented in a randomized fashion. Each sample has an observation time of 5 seconds and the total is 15 seconds.

3.4 The definition of Dependent Variables

The fixation count, sequence of fixation and space of distribution of the fixation point of the subjects in this research are taken as the fundamental factors to proceed with the experiment. The description is as follows:

a. **Fixation count:** This is the visual landing number of the subject when viewing a window display photo in a 5 second internal. The purpose is to understand whether the difference in the process of viewing is created according to various forms of the window display.

b. **Sequence of fixation point:** Sequence of fixation is defined as the sequence of time-based fixation point and the fixation region, the continuous sequence of fixation point formed the scan-path. It is the sequence order according to time of the sequence of fixation point of the subject after viewing each stimulus photo. The purpose is to understand the visual route of the subject while viewing.

c. **Space distribution of the fixation point:** When the subject is viewing the window display, it is the frequency distribution of the fixation point in the overall search area. Within the visual search route, the fixation points are in the 10x10 space as set up by the Face Lab. The visual ratio of the subjects with regards to the three window display forms is investigated.

3.5 Experiment Samples

Sample 1: Spacing Exhibition. The theme of the sample is "**Japanese Samurai**". On the models, there is cloth as different forms of product combination. The display effect is enhanced through the design of the product and the abundant variation of the types of colors. The overall atmosphere construction, the uniform movement of the models

and the front and back spacing from within the photo has elevated the product image. The worthiness of attention of the product has thus increased. As shown in Fig.1:

Fig.1: The sample of the spacing window display

Sample 2: Grouping Exhibition. This is like the product grouping, and adopts "**Lovely Family**" as the theme. The main body is the set-up of the room, the layout is the display in a neat and tidy fashion and the integrated spacing is created. The vivid body movement of the model and the condensation are applied to form a temporal space. This has enhanced the focus of the theme, and drawn attention as well as echo (as in Fig.2).

Fig.2: The grouping window display sample

Sample 3: Effect Exhibition. This is the combination product on the small properties room. The theme is "**Ultra Man**". The overall design takes properties as the main visual effect to produce the product enhancement. The properties design is created with the product image and the story-like window display technique is also formed in order to strengthen image, value and charm, to elevate the visual effect; the design of the back and front scene has added more vividity and vigor to the window display(as in Fig.3).

3.6 Result and discussion of the research

The analysis of the difference of window display design and eye movement information.

3.6.1 Fixation count

Overall speaking, it is known though Sample 1 that while the subject is viewing the spacing exhibition form of the window display in the 5 second period, the visual landing region is mostly distributed among the displayed product and the displayed project, the primary area is the center of the picture (as in Fig.4).
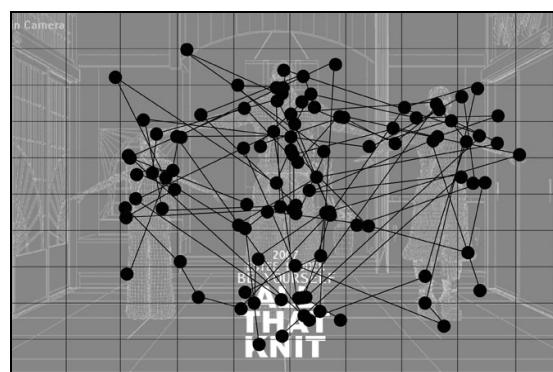

Fig.3: Effect window display sample

Fig.4: Visual landing count of the fixation of the subjects on Sample 1

It is known through Sample 2 that while the subject is viewing the exhibition form of the window display in the 5 second period, the visual landing region is mostly distributed on products and its content, background and properties are ranked second (as in Fig.5).
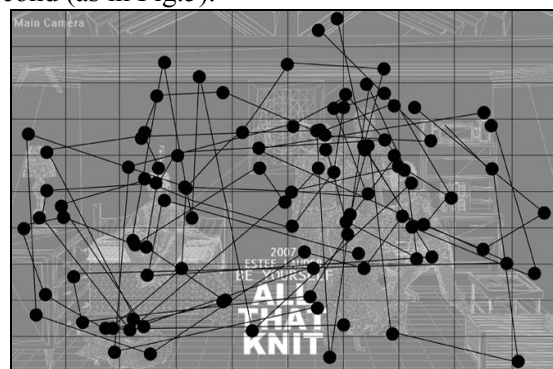

Fig.5: Visual landing count of the fixation of the subjects on Sample 2

It is known through Sample 3 that while the subject is viewing the exhibition form of the

window display in the 5 second period, the visual landing region is mostly distributed on the displayed products and the displayed properties (as in Fig.6).
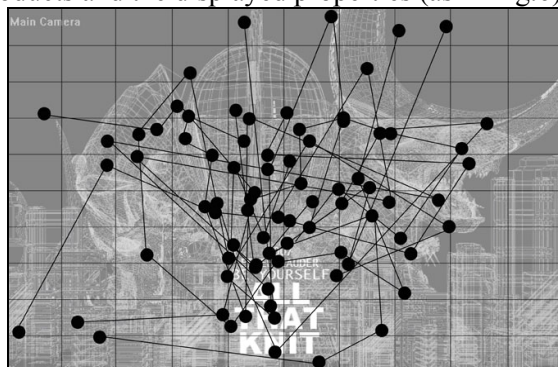

Fig.6: Visual landing count of the fixation of the subjects on Sample 3

After these three window forms are assorted and compared, it is learned that different window forms design will create different visual landing points of the consumers, and the concentrated area of the visual tracks will be different too. The main purpose of the window display is to drawn consumers into viewing the products by display method; therefore, this research has concluded that the first visual point that attracts the consumers is the displayed products. The layout and position of the displayed products will also directly affect the visual landing point of the consumers. Because of such factor, it is suggested that the window display form must take characteristics of the products and the combination of the thematic content as the priorities, the product display function and performance effect must also be taken into account.

3.6.2 Sequence of fixation point

While the subject is viewing the spacing window display, the first visual point has always begun with the center of the picture, and at the end of the visual point, the terminal points are always be the displayed products on the either side of the window. The visual scan-path is analyzed with according to the content of the display design, and it can be divided into two parts. The first part is when the subject is viewing and its first visual point will focus more on the center of the picture, and it starts primarily on the product display region; the second part is when the subject is viewing and its first visual point will mostly start with the caption; and the terminal point is the product model display region on the either side of the window. Therefore, in the process of designing this kind of window display, the emphasis can be placed on setting the products on the central area as the best range; and secondary products can be displayed on either side of the window as the secondary range. This kind of

layout can be used to reach the demand of an effective display (as in Fig.7).
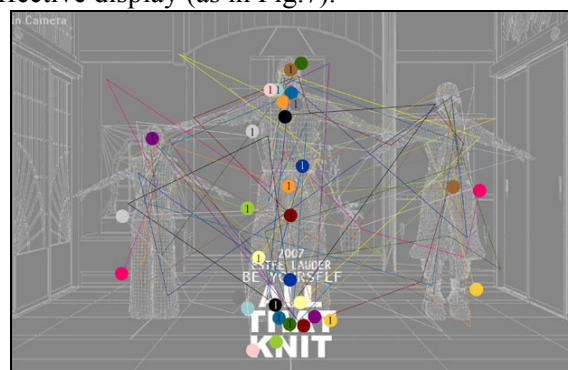

Fig.7: The visual scan-path of the fixation of subjects on Sample 1

When the subject is viewing the content of this grouping window display, the first visual point will be the grouping display products on the right of the picture, and the terminal point is mostly on background and properties (as in Fig.8). After the analysis of the subjects on visual tracks, it is known that the displayed products are the first to be viewed, and the visual track is back and forth. Other region is done with brief browsing, and there is no gazing at either the background or the properties. The second is the thematic project, and then the product is viewed in detail in a later time. Therefore, when designing a window as such, the products with greater emphasis should be placed in a position which has an adequate ratio when compared to the total area of the window. The position of the thematic project and the displayed products needs to be collocated nicely as well.
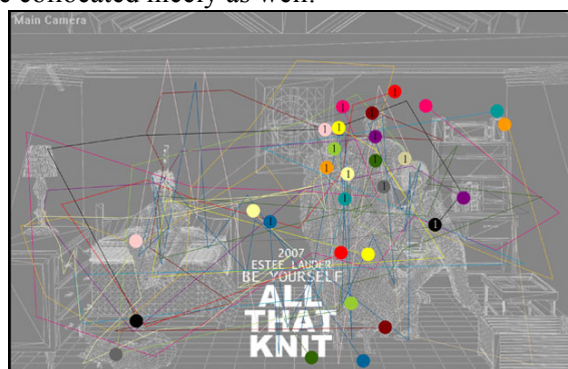

Fig.8: The visual scan-path of the fixation of subjects on Sample 2

When the subject is viewing the content of this effect window display, the first visual point is on the displayed products and properties, thematic project on the canter of the picture. The terminal point lies on the properties and background on either side of the picture (as in Fig.9). According to the analysis of the displayed content, it is known that the visual scan-path can be divided into two parts. The first

part is the displayed products and the properties as the main visual landing point, the visual terminal point is on the properties region on either side of the picture; the second part is the area of the thematic project as the visual starting point of the subject, and ends with the properties region on either side of the picture. Therefore, it is also known that while the subject is viewing this kind of window display, the starting point must begin on the canter of the window display and extend outwardly to the area of the background and the properties. Hence, in the designing process of this effect window display, vision and idea must be taken into account as the prior considerations, but adequate properties must also be utilized in order to supplement the window display design. The properties have to be appropriate in the awareness of not to have the precedence over the major product or it will lose the purpose of the product display.
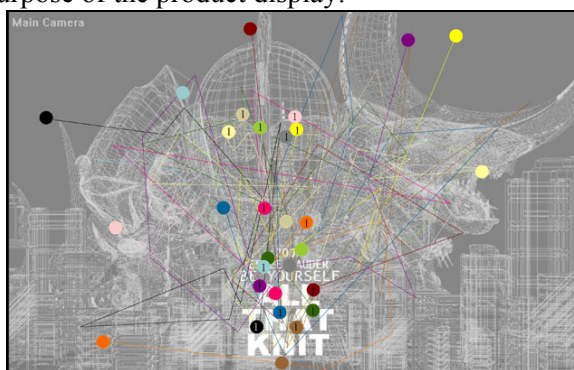

Fig.9: The visual scan-path of the fixation of subjects on Sample 3

3.6.3 Space distribution of the fixation point

In the visual search path of the subject, the fixation point is situated on the 10x10 space as set out by Face LAB. 5 parts are divided according to ratio, and the visual weight of the three windows forms is as follows:

In Sample 1, the highest viewing ratio is the third area of the window, 51.1%. When the subject is viewing, the primary visual point and staying position will easily be the center of the picture, and the main reason is that the area is the area of window caption and product display, therefore it is understandable that the area is the primary focus when the subject is viewing. The second area covers 20.3% and the fourth area covers 15.1%. These are also the major product display area (as in Fig.10) and so they draw the subject into viewing easily. When the above analyses are combined, it is known that if the theme of the window display is explicit, and the displayed product and the properties room are neat and tidy, it enhances the attention of the consumers and reduces the chance of consumers

making aimless visual points; if the mode of spacing display technique can be used efficiently, the advantage is that the fixation ability of a product of a consumer will be greatly increased and the image of the product will also be strengthened. The drawback is that if the construction of the window spacing is far too expansive, then it will easily cause the visual fatigue of a consumer and the characteristics of a displayed product will not be shown.
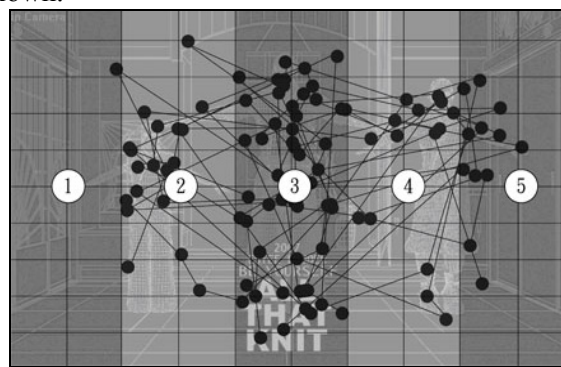

Fig.10: The percentage of number of people of fixation on every sensitivity area on Sample 1

The fixation ratio of the subjects on the four visual sensitivity areas of Sample 2 has no too much of a difference. The viewing ratio of the fourth area is the highest, 30.9%, this area is the display area of the major product. Second area is ranked second, 24.8% and third area covers 24.9% (as in Fig.11). The product display method in this sample covers more area, properties and background can be easily combined and produce visual idea. The viewers will place their vision on the overall design and tend to neglect the thematic project easily. Therefore, this kind of window display form can make the similar displayed products, the same type of displayed products and the highly-related displayed products to have their characteristics stand out through the combination of grouping method and added variations. The advantage will be the high integrity which makes the consumers to know about the display theme at the first glance; the drawback is that the appropriateness of the products and the display spacing must be confirmed beforehand, and the effect can only be shown with abundant variations while displaying.

With Sample 3, the highest fixation ratio of the subject lies on area 3, and is 59.7%, it is the area of thematic caption and major product display. When the subject is viewing, the centre of the picture can easily be the major viewing point and the major position of visual staying point and so be the major fixation focus. The fourth area takes 20.2% and second area takes 13.2%. These areas are the display area of properties with decorating purpose (as in

Fig.12). The display technique in this window elevates the visual effect because of the properties, and it also increases the attention of the subjects, and the part with the caption has also become the viewing point of the consumer while viewing. The combined analysis of this window display type has made known that its advantage is the easiness to draw attention from the consumers, and if the display properties can work with displayed products to create story-like quality, the memory connection of the consumers about the displayed products can then be deepened, and the charm of the product increased; the drawback is the easiness to take over precedence from the major products, therefore, adequate decoration and properties must be used in order to reach the bonus effect of supplementing the theme.
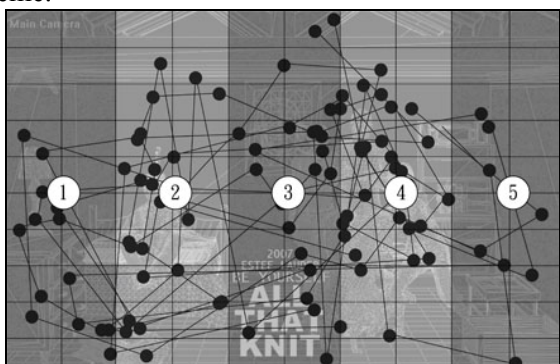

Fig.11: The percentage of number of people of fixation on every sensitivity area on Sample 2
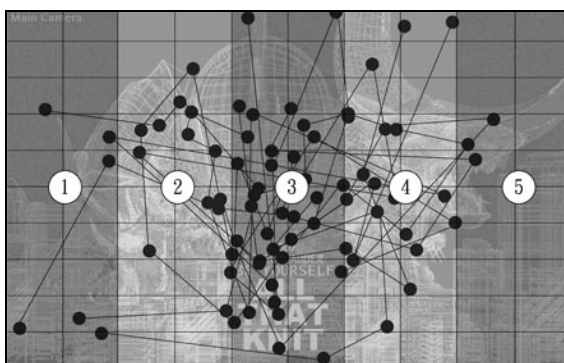

Fig.12: The percentage of number of people of fixation on every sensitivity area on Sample 3

4 Conclusion

Vision provides us with thinking activities like perception, memory and association; it also lets us to utilize experience to create abundant emotion and enables us to acquire and feel the image of each object. Window display is the visual window of brand image; it influences the consumer's opinion about store image and also it is the main path to transfer fashion information and thematic expression. Hence window display is very important

to the store operator. Vision presence is the first information received from store image; it is also one of the decision-making reasons which influence the consumer to stay and buy. In a window display design，the expression of demand and whole visual effect depend on the designer's original structure content and the further development of a more adequate and more creative ideas; These ideas are then planned and displayed on the paper to form a display pattern to be used on the three-dimensional space managing for visual promotion purpose. In another word, window display is the first door of the store and it is also the consumer's fist visual contact spot, therefore by renewing window display, the store can present its special particularity such as distinctness, diversity, changeability and economization factors of importance other than factors with inducing capability. Window display must enable the consumers to know about the store's demand mechanism which is the essential condition for guiding consumers for entry. The stores use window display as medium to do the first stage promotion; it can deepen consumer's image impression and produce a difference comparing with other competitors. Hence, window display can also serve as a kind of tool to express the individuality.

Moreover, there are two key points that require caution in visual display of shop window: window display design and store environmental programming. Window display design needs attention on three points while doing programming: 1) precise measuring the size of the store's window; 2) the sequential arrangement of keystones, background assistant and supports should not be more stand out than the main body; 3) the whole atmosphere should be in harmony for it decides the success of a display. Store's environment layout should include shop window design, beautification of store environment and skillful product display technique. In addition, the visual expression manner of main product and brand group display needs to be balanced in areas like visual color, form ratio, material selection…etc for building beautiful view so that it won't conflict with store image and consumer can find the image that match with the store's environment and purchase accordingly. Establishing store's atmosphere is the most important issue. Store's atmosphere is the aesthetic feeling effect built by the store; it can be used to increase consumer's consumption situation value, raise the consuming emotion to a happy and exciting state and let the consumer to a longer stay and buy more. Delightful shopping experience can also improve store image, increase the returning and repurchase ratio. The quality of window display

design can influence the consumers about entering the shop or not; store environment can directly influence consumer's mood while shopping. Hence, the store's atmosphere such as visual beautification, product display, space design and storefront promotion can initiate a consumer's reaction towards product's visual design; it is also the main factor which influences a consumer's entry and purchase. Visual presentation of the store's environment not only includes the shop window design, beautification of store's environment, and display skills of product but also should balance the visual expression manner of main product and brand group. This is done to avoid confliction with store image; then consumers can feel their image do match with the store's atmosphere and they can select and buy products according to their own image.

The main purpose of this research is to investigate that while consumers are viewing a window display, the relationship between their visual tracks and the window display design forms. Except for the use of eye-tracker equipment by Face LAB to measure the visual points, the degree of visual satisfaction while the consumers are viewing window display forms is also investigated. The research result has shown that while the subject is viewing different window display forms, with the preferences on desired window types, the result is reflected directly on fixation time and fixation count. If one favors one particular window type, then one tends to draw its vision back to the same picture with a greater frequency and the staying time becomes much longer.

References:
[1] Boulding, K. E., *The image: Knowledge and Life in Society*, Ann Arbor MI: University of Michigan Press, 1956.
[2] Dodds, W. B., Kent, B. M., & Dhruv, G., Effects of Price, Brand, and Store Information on Buyers' Product Evaluation, *Journal of Marketing Research*, No.28, 1991, pp.307-319.
[3] Grewal, D., & Krishnan, R., The Effects of Store Name, Brand Name, and Price Discounts on Consumers' Evaluations and Purchase Intentions, *Journal of Retailing*, No.74 (3), 1998, pp.331-352.
[4] Kapferer, J. N., Beyond Positioning: Retailer's Industry. Retail Strategies for Profit and Growth, Seminar Proceedings, *ESOMAR, Amsterdam*, 1986, pp.167-175.
[5] Kenneth, H. M., Judith, E. P., & Kay, B. M., *Applied visual merchandising*, New Jersey: Prentice-Hall, Inc, 1995.
[6] Samli, AC., Kelly, JP., & Hunt, HK., Improving the Retail Performance by Contrasting Management-and Customer-Perceived Store Images: A Diagnostic Tool for Corrective Action, *Journal of Business Research*, No.43, 1998, pp.27-38.
[7] Lindquist, J.D., Meaning of Image, *Journal of Retailing*, No.50 (4), 1974, pp.29-38.
[8] Kunkel, J., & Berry, L., A Behavioral Conception of Retail Image, *Journal of Marketing*, No.37 (10), 1968, pp.21-27.
[9] Mazursky, D., & Jacoby, J., Exploring the Development of Store Image, *Journal of Retailing*, No.62 (2), 1986, pp.145-165.
[10] Laaksonen, M., Retail Patronage Dynamics: Learning About Daily Shopping Behavior in Contexts of Changing Retail Structure, *Journal of Business Research*, No.28(1/2), 1993, pp.1-172.
[11] Chowdhury, J., Reardon, J., & Srivastava, R., Alternative modes of measuring store image: an empirical assessment of structured versus unstructured measures. *Journal of Marketing Theory and Practice*, No.6 (2), 1998, pp.72-86.
[12] Berman, B., & Joel R. E., *Retail Management: A Strategic Approach*. 5th Ed. New York, Macmillan Publishing Company, 1995.
[13] S. Wang, J. Feng, & C. Lin, A Hermeneutic Approach to the Process of Information Realizing in the Context of IS, *WSEAS TRANSACTIONS on BUSINESS and ECONOMICS*, No.3 (5), 2008, pp.94-102.
[14] McGoldrick, M., *Re-visioning family therapy: Race, culture and gender in clinical practice*. McGoldrick text, Chapter 16- Belonging and liberation: Finding a place called "home", New York: Guilford, 1998, pp.215-228.
[15] Rudolf Arnheim., *Art and Visual Perception: A Psychology of the Creative Eye*, University of California Press: 2Rev Ed edition, 1974.
[16] J. Sarabdeen, Laws on Right to Privacy in Mobile Marketing, *WSEAS TRANSACTIONS on BUSINESS and ECONOMICS*, No.5 (5), 2008, pp.280-290.
[17] Schmitt B. H., *Experiential Marketing: How to get customers to sense, feel, think, act, relate to your company and brands*, NY: Free Press, 1999.
[18] Pine II, Joseph B., & James G., *Welcome to the Experience Economy*, Harvard Business Review, 1998, pp.97-105.
[19] Schultz, R. J., The Effects of Mood States on Service Contact Strategies, *Journal of Professional Services Marketing*, No.14 (1), 1996, pp.117-135.

[20] Megaw, E. D., & Richardson, J., Eye movements and industrial inspection, *Applied Ergonomics*, No.10 (3), 1979, pp.145-154.

[21] Neboit, M., & Richardson, J., *Eye movement recording in ergonomics and applied research*, in Eye Movements: From Physiology to Cognition, J.K. O'Regan and A. Levy-Schoen (Eds.), Elsevier Schience Publishers B. V., 1987, pp.551-553.