Optical Illusion and Product Competitiveness in the Package Design

Lu Lin, Liu Yang

Abstract—Facing 21st century of information era, competitive capacity has become a key factor of enterprise development. Product competitiveness has always been the priorities of enterprise’s competitive power. The article science uses the principle of optical illusion in the design of product packaging to mix form, material and cultural for the requirement of user’s Visual, Touch and Taste. The principle improves enterprise's development.

Index Terms—Optical illusion; Package design; Product competitive

I. INTRODUCTION

The competitive capacity has become a key factor of enterprise development. Product competitiveness is the important part of enterprise development. Product competition capability is not strong, any management method, marketing channel and brand image strategy are not success in the market. So product competition is important in the development of enterprises.

The first impression of products is not quality, but package appearance for customers in the research. In fact, customers not only choose package but also brand by shopping. So the best package is important in the development of product competition. In the sale, product package design is first vector for quality, function and kind on the base of the competition. In the market competition, a measure of the success of package design is whether accurately communicates product information to satisfy the requirement of target group beside quality.

Advertising authority D.auger’s motto is – “The similar product, the brand when the choice, the fewer distinguish between reason.” to define the important of soft sell, emotional and rational marketing sales promotion, and he thinks “The excellent design won many consumers of favor.”. Package designs are not only shelves stacked with supplies to attract consumers, but also communicate between brand and consumers. So package design is a kind of brand property to satisfy consumers’ requirement to improve the competitive of product and enterprise.

Optical illusion is the basic principle in Gestalt psychology nearly a century of history. Various industries designer continue to try to use an optical illusion in space art, city recognition and commercial display, logo design, etc. Optical illusion is scientific used to design package, and product competitiveness of integrated research is the design principle and marketing theory organically to improve profit and brand image for the development of the enterprise. Similarly, the theory can strengthen product package image and packing material quality to combine culture element with products, which satisfies consumers’ visual requirement, touch requirement and taste requirement to achieve brand building and marketing target.

II. OPTICAL ILLUSION TO STRENGTHEN FORM SENSE OF PACKAGE DESIGN

In the market showing, 90% products provide information from their package. The form sense of package design is not enough and short of visual impact, which can’t attract consumers’ attention and visual requirement, to impair products competitiveness.

Graph and Color are two important methods of package design. The principle of optical illusion can full reflect the character and types of products with graph and color in the package design, to precise express products’ appeal and satisfy consumers’ visual sense.

A. Graph optical illusion and package design improve visual impact and build a channel between products and customers

Products accord to themselves character to product different kinds of requirement, such as: High, Short, Round, Curve, Solid, Big or Small. For example: people habit ask different wine products, such as: ice beer is long and thin of package design, short and fat package design of champagne, morbidezza femininity fruit wine, etc. Package design achieves these products’ requirement in the optical illusion.

Optical illusion includes five parts in the graph: Direction optical illusion, bending optical illusion, long and short optical illusion, solid optical illusion and big small optical illusion. Direction optical illusion enables volumetric variations of products: graphs are divided in landscape and products seem to be higher; graphs are divided in vertical and products seem to be wide. Curve optical illusion is seemed products morbidezza,
and multiterm curves weaved in same direction to show longer vertical line. The same length lines are put different vertical and horizontal stations to seem longer. Solid optical illusion uses black and white different spaces to seem solid. Different sizes of the graphics around the middle of the same size of the graphics, the same size image from the vision for contrast in the different and appear size.

The principle of optical illusion is used in the graphics of package design to reflect by superb the formal of products. So products provide visual impact to arouse consumers’ interesting for products competitiveness.

B. Color optical illusion in the package design supplies core competitiveness of brands.

Enterprises did not launch simplex product in the market, also launched series of products to enhance competition ability in short time. The series of products used disparate color at an approximation to reflect the different characters of products in the package design.

Color can not be separated from the performance of the package design, color changes in temperature and the characters of emotion realize optical illusion. Warm-toned produces approach feeling and swell feeling that people perceive bigger than actual area or closer than actual location. Cold-toned produces back feeling and contractive feeling that people perceive smaller or far than actual area. People produce the emotion of hotter and quiet from red to blue; different colors satisfy different affection needs. Other, color has heavy and light feeling, which the major factor is lightness. Lightness is high, than feeling is light, and vice versa. White has “rise” feeling to seem light; black has “drop” feeling to seem heavy.

Package design flexible uses the effectiveness of optical illusion of color. The series of package design are expressed by the types of optical illusion that includes hue, changes in temperature, lightness, etc. The method exact expresses the attributes of products to become a marketing carrier for products brand publicity and increases consumers’ vision needs.

In conclusion, optical illusion of graph and color strengthens form feeling of package design to increase visual impact and model brand image. It is an important channel of visual needs, and improves product competitiveness.

III. MATERIAL TEXTURES IN THE OPTICAL ILLUSION OF PACKAGE DESIGN SATISFY CONSUMERS’ TOUCH NEEDS

The principle of optical illusion in the package design shows different feeling of textures and materials to provoke consumers’ interesting to touch and reflects products appetency to satisfy consumers’ touch needs for product competitiveness advantage.

A. Dynamic optical illusion reflects target customers’ interesting in the package design.

Dynamic optical illusion is an intriguing selection of old, new and exclusive optical illusions. This amazing illusion to the figure 1 was created. It already looks quite ‘wavy’, but try slowly moving the mouse cursor up and down the center of the image – and focus on the cursor. You should see the picture ‘waving’ in an incredible way.

Figure 1 the picture ‘waving’ in an incredible way
Dynamic optical illusion could produce dynamic texture in the package design. For example: Sports products reflect its character to increase consumers’ desire of purchase and touch, to improve products competitiveness.

B. Package printing simulates the quality of package material to produce optical illusion and increases the affinity of products.

Modern package printing could print stereo effect and various material qualities in the kind of carriers to produce optical illusion. As shown in Figure 2, the printing technology put fruits into clear water to reflect the texture and surge. It explains the refreshing of products, and produces consumers’ touch needs to increase the affinity.

Figure 2, Fruits and Water-drop
As shown in Figure 3, it explains history feeling of wine, so the effect of printing is the optical illusion of stone carving.

Figure 3, Package of wine
It follows that dynamic optical illusion and printing technology produce visual illusion and texture to consumers’ feeling in the package design, so products competitiveness is advanced.

IV. OPTICAL ILLUSION SHOWS THE IDENTIFICATION AND TEXT IN THE PACKAGE DESIGN TO SHOW DIFFERENT CULTURAL BACKGROUND AND SATISFY CUSTOMERS’ TASTE

Products package design is an important medium of products information and culture, and joins into competitiveness. Package can increase the price and popularity of the brand that improves sale and satisfies customers’ various aesthetics demand. Package is a kind of product culture. It shows a kind of local culture that is an important characteristic of products brand. Package culture had become strong competitiveness device of brand. Not only the package of products provides easy for consumers, but also marketers create a method of sales promotion. The function of packages reflected in favor of customers’ services and rich cultural connotation of the brand image to improve the core competence of enterprise.

Optical illusion shows different cultural styles and tastes in the design of logo and characters that possesses deep connotation of them. At the same time, the kind of design can reflect different regionalism and cultural background to create the uniqueness of products in the competence of products.

A. Gestalt psychology and optical illusion design brand in the product package to show perfect brand image and cultural character of products to improve form.

“Gestalt” (German: Gestalt – ”essence or shape of an entity’s complete form”) is a theory of mind and brain of the Berlin School; the operational principle of gestalt psychology is that the brain is holistic, parallel, and analog, with self-organizing tendencies. The principle maintains that the human eye sees objects in their entirety before perceiving their individual parts. Gestalt psychologists stipulate that perception is the product of complex interactions among various stimuli.

Gestalt psychology principles and product packaging, logo design combining the use of optical illusion design can realized Figure the end of swap and the structure of lines and surfaces.

Figure 4, Picture-in-Picture
Picture the floor of swap’s mean is that watch the mutual of black and white, the coexistence of two images as the visual position of the mobiles. Black and white changes the logo of the two images between images and substrates. “Rubin Cup” is a cup with two opposite faces, the local contour of the cup as a shared line. The composition of the dual images is optical illusion in the logo design of package that the method allows logo to produce deficiency and excess. This is a kind of picture-in-picture functionality. In Figure 4, the background of brand image is white blank, which becomes a smile. But blue, green and red are turn into the background from the design.

The principle of line and plane symbiosis uses the regulatory of optical illusion to mutual complement to obtain best result of art and vision. Research of vision psychological proved when person pay attention to a project to decrease other perception and attention, and changes target to change vision core. Mutualism line and plane can explain loom base on the principle. The high-end package design is more tend to simplified. The use of lines and plane symbiotic is the best simplified. So optical illusion in the package design could satisfy consumers’ needs of the taste.

B. The principle of optical illusion designs characters for package, let words to become images. And it increases imaginary space to advance the level of products.

The imaging of words in the package is originality. It depends on the form and structure of words to produce optical illusion to achieve design target. The similitude of object forms or structures easy produces illusion to cause psychology associate. Similarity word images are grouped base on the principle of optical illusion to achieve simple word images to obtain more means in the design of word images. This is a characteristic expression method.

The optical illusion of Gestalt psychology builds words imaging to display products in the package. As shown in Figure 5, VS is the brand image of wine. Simple images processing cuts parts of “VS” image to develop imaginary space. The people think “VS” image to increase visual impact of words.

Figure 5, the brand of wine

Optical illusion of the brand and word imaging can explain the culture and local characteristic of products in the package design to build high-end image of products.

V. CONCLUSION

Optical illusion is used in the package design to satisfy consumers’ vision needs, touch needs and taste needs. The conclusion follows research line in Figure 6, and obtains the result. Optical illusion full show characteristic, superiority and
competitiveness of products to save quality and slinky, that it become a marketing carrier to satisfy consumers’ needs. The method builds single product image and improves sale ability in the market.

Figure 6, Research technology line

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First A. Author

Lulin, female, Instructor, was born on March, in 1975.
Graduated from Tianjin academy of fine arts.
Master Degree: Visual Communication and Graphic Design
The membe of China Packaging Federation (CPF)
The Director of the Discipline and Graduate Students Office, Tianjin Institute of Urban Construction,(TJUCI)