

A Study of “Five Senses” in Application of Packaging Design of Products

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Abstract

With the changing times, the modern packaging is not restricted the production, but values the aesthetic values. In the experience economy, the consumer experience becomes more and more popular and the packaging design of products is associated to the consumer psychology indirectly. This article firstly explores the origin of “five senses” and the influence of “five senses” on the purchase intention of the consumers through the research of historical documents. Then, it discusses the different application characteristics and roles of “five-sense” experience in the packaging design of products. On this basis, this paper discusses the theories for better application of “five-sense” experience in the packaging design of products, and conducts the analysis through the cases. This paper studies the characteristics and methods of visual, auditory, tactile, gustatory and olfactory applications in the packaging design through function analysis of “five senses” in the product packaging.

Keywords: “five-sense” experience, packaging design, consumer, purchase intention

1. Introduction

1.1 Research Background and Objectives

“Five senses” are the perceptual abilities that humans are born with, and they form the foundation for our interaction and understanding with the world. Five senses, including visual, auditory, tactile, gustatory, and olfactory senses, coordinate to acquire and explain the information from external world. It is interesting that although we stress the visual and auditory senses, 80% of the perceived

environment and impressions of others depend on the non-verbal sensory factors. It means that in addition to visual and auditory senses, the olfactory, gustatory and tactile senses also play the crucial role in interaction with the world.

The visual communication design is not only about the beauty and appearance, but a comprehensive sensory experience. Through the fusion of multiple senses, the excellent design works will bring the profound and unforgettable experiences to the consumers. In the visual

communication design, it indicates that “five senses” are combined and interacted to convey the authentic emotional expression.

In terms of “five-sense” interaction in the visual communication design, the designers could integrate these senses to create more comprehensive and profound emotional expression. It facilitates the improvement of the brand building, product design and user experience, to have deeper connection with the design, so as to realize the ultimate goal of the design (Liang Zixuan, 2021). Hence, the visual communication design is not restricted to the visual sense, but a comprehensive sensory experience. Through interaction of “five senses”, it conveys the information and emotions to the audiences, so that they could better understand and design the interaction.

The packaging design is an important element in the product marketing. It could not only provide consumers with basic product information beyond product protection and preservation, but also make them aware of complex visual elements. “Five-sense” experience is closely associated with the packaging design of products. The consumers will have different emotions for their products through the influence of sensory factors. Hence, this paper mainly studies how to apply the “five-sense” experience factors in the packaging design of products.

1.2 Research Approaches

This paper adopts the qualitative research. Firstly, it concludes and summarizes the types of multisensory factors through literature survey, and analyze the specific characteristics and modes of transmission of each type. Besides, it explores the specific expressions and design methods of multi-sensory factors in packaging design of products through case analysis, to draw the conclusion of the research topic.

2. Theoretical Background

2.1 Concept of Packaging Design

Kim Mi-seon (2012) said: In addition to protection and preservation, the packaging design not only provides the necessary product information for consumers, but enables the consumers to learn about the complex visual factor, which is considered as an important factor in marketing (Kim Mi-seon, 2012, p. 260).

The packaging design plays a significant role in visually reflecting products, attracting consumer

attention and guiding purchases. For example, it could enhance the brand logo and ensure the competition strength.

2.2 Concept of “Five-Sense” Experience

Five senses of humans include visual, auditory, tactile, gustatory and olfactory senses. The sensory information is usually recognized and processed in the following order: auditory sense, tactile sense, olfactory sense and gustatory sense. It indicates that the visual sense is significant in the human perception, but other senses are also involved in our understanding and perception on the world in varying degrees.

The theoretical research of “five senses” originated from American psychologist E Bruce Goldstein. His work *Sensation and Perception* is an important theoretical foundation about sense and perception. This book discusses how to form the perceptual experiences through five senses (visual, auditory, tactile, gustatory and olfactory senses). He deemed that the way humans perceive the world is achieved through the interaction of five senses, so it is necessary to consider these senses in the design (E. Bruce Goldstein, 1970).

In *Design of Psychology* written by Donald Norman, an American designer, he divided the design into three aspects, i.e., “reflection”, “behavior” and “instinct”. It emphasizes that the designer shall conduct the design by analyzing the demands and desires. It aims to enhance the psychological and cognitive feelings, so that the consumers could be joyful in using the product. He believes that the physiological pleasure includes the visual, auditory, tactile, gustatory and olfactory senses. It provides the foundation for the development of the “Five Senses”, and stresses that the design should be carried out by considering how to improve the user experience through “five senses” (Donald Norman, 2003).

3. Results: A Study on Application of Five-Sense Experience in Packaging Design of Products

3.1 Visual System

Among five senses, the visual sense plays the dominant role. The visual sense is the primary way of perception, and 80% of information is received through the visual sense (Xu Yuan, 2019). This phenomenon is especially evident in daily life, because we often rely on the visual sense to acquire information, navigate the world,

understand the situation and communicate with others.

The visual design on packet mainly includes the text, images, colors and layout (Cheng Wanting, 2023). The traditional packaging design is mainly two-dimensional, and sometimes three-dimensional, such as surface hollow-carved design or irregular geometric shapes. With the development of the times, these traditional design approaches could not meet the demands, but the affective interaction between packaging and consumers have attracted more attention.

For example, the designer kazuaki kawahara designs the toilet paper packaging (Figure 1). In Japan, the companies and stores give customers a roll of toilet paper as a gift to express their gratitude. Hence, the designer adds additional packaging and re-designs its shape as the selected tropical fruits. The “fruit toilet paper” is created and it is designed to convey the positive feeling to people who see or receive it. Hence, the traditional text, layout and other design elements are cancelled, and it is only displayed through the shapes and pictures.

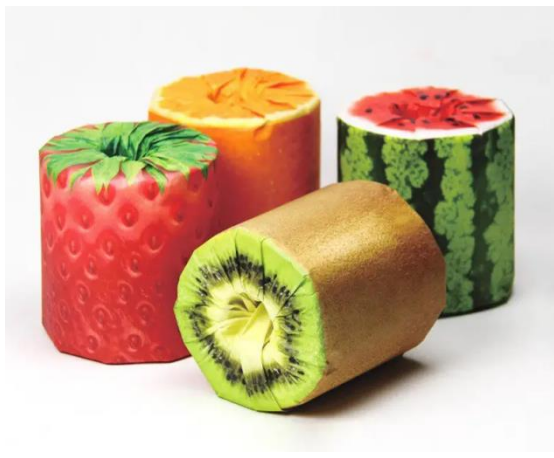


Figure 1. Palatino Linotype-Bold

Source: <https://pentawards.com/>

3.2 Auditory System

The auditory system is usually applied in the advertising design, and its significant strength is its propagation speed. In the advertising design, people always identify the products or brands through voice before the graphics. It makes the auditory sense as the fast media in conveying information, especially in the broadcast advertising, audio advertising and social media videos. The research indicates that the auditory factor occupies a considerable proportion in

influencing the purchase intention of the consumers, reaching 41% (Li Meng, 2008).

The pleasing sound will improve the purchase desire of the consumers. In the packaging design, the auditory element is the most difficult to embody and also the most promising design element. It generally consists of two forms. The first one is the sound of the product itself and it is relevant about the product functions or using process. For example, the opening sound of champagne is often associated with celebrations and festive occasions. It could be taken as the iconic sound of the brand or products to trigger the emotional memory of the consumers. The second one is the sound on the external packaging materials. It is associated with the packaging and manufacturing materials. Some packaging materials can produce a pleasant sound that combines tactile and auditory senses, thereby enhancing the perceived value of the product. When you open the perfume or cosmetics, the material of the bottle cap and the “clicking” sound when opening can create a high-quality and luxurious feeling. <Figure 2> is the Chanel No⁵ perfume displayed in the sixth Pro Carton exhibition. When the consumer open the packaging, the pleasing “high-quality” sounds by the magnetic device could show the unique feature of the products, so as to stimulate consumers’ purchasing desire and emotional resonance while creating differentiation among similar products.



Figure 2. Chanel No⁵ perfume package

Source:

<https://www.xiaohongshu.com/explore/61323a6d000000000102d40d>

3.3 Tactile System

The tactile sense is a sensory system on the skin and it perceives the external stimulus, such as pressure, temperature and texture, etc. These stimuli will trigger a variety of sensations, including hot or cold, soft or hard, pain or comfort. These feelings have the direct impact on our emotions and feelings.

In the packaging design, the tactile sense is a strong tool. It represents the direct contact between consumers and products, and it can convey the product texture and emotional value of brands (Zhang Yue, 2019). In the packaging design, the tactile sense could also be realized through different materials, textures, quality and shapes. These tactile elements can close the relation with the product, enhance the emotional connection on the products and improve the product attraction.

Figure 3 is JUICEPEEL juice packaging designed by Naoto Fukasawa, a Japanese designer, which shows how to attract the audiences through tactile design. Firstly, the packaging chooses the unique packaging material and shape to imitate its texture. This design arises the curiosity of the consumers to touch and feel the packaging. Secondly, when the consumers touch the packaging, they can feel the texture and deem that it is a fresh product. Through the tactile sense, this design conveys the freshness of products and the high-quality emotion, which is of great significance for the juice brand.



Figure 3. Naoto Fukasawa: JUICEPEEL

Source:

<https://beachpackagingdesign.com/boxvox/naoto-fukasawa-juicepeel-revisited>

3.4 Gustatory System

The packaging protects the product, but it also influences the olfactory experience of the consumers. In the age of industrialization, the packaging design has become an art, and it utilizes the visual element and color to convey the product information and emotion (Liu Ruijia & Xiao Yingzhe, 2021). These factors could affect the gustatory experience of consumers indirectly. For example, red is often associated with the warmth, passion and enthusiasm, so it could stimulate the excitement and vitality. Blue is usually associated with the calmness, freshness and reliability, so it could convey relax and trust. Brown is related to nature, fragrance and warmth, and it can arouse a sense of pleasure and desire for the product.

The multi-sensory comprehensive experience is significant in the brand building and sales of products. Hence, in the packaging design, the gustatory sense is usually an idea that arises in the minds of consumers through association with other sensory factors. For example, figure 4 refers to three tastes of coffee in OSTTE and they are: condensed milk latte, concentrated black coffee, double latte. The packaging design chooses the same appearance, but distinguishes different flavors of coffee through color changes, so that the consumers could directly learn about the taste difference. Such design conveys the taste information via color difference, so as to help the consumers to select the appropriate products.



Figure 4. OSTTE: Bulletproof Coffee

Source: <https://ostte.co.kr/category/bulletproof-coffee/44>

3.5 Olfactory System

The olfactory sense is a strong feeling and it could trigger memory and emotions. When the consumers are attracted by the specific taste of the packaging, they will remember the tastes. Such olfactory memory may be activated at some moments in the near future. When the consumers smell the familiar flavor in the strange environment, they are familiar with it, which may stimulate a good impression of the product or brand. Such phenomenon has great significance for the brand building and packaging design, so it could help the consumers to establish deep emotional connections. If the packaging design of products brings the profound impression of olfactory sense to the users, it is difficult to eliminate the olfactory memory formed (Zhu Mengrui, 2015). It indicates that if the packaging design of the product brings the profound olfactory impression to the user, it will last for a long time and even surpass the service life of the products. It could promote the consumers to remember the products and like the brand for a long time.

In the packaging design, the olfactory experience is associated with the gustatory experience, because they belong to the chemical perception of the sensory experience. Two sensory experience could not be perceived by the visual sense directly, but conveys to the consumers through the combined experience of other sensory systems. Hence, the olfactory and gustatory design in the packaging design shall be based on the visual sense, and it could be realized through the visual element indirectly (Wu Xiaoyan, 2023). These elements bring the comprehensive perceptual results through the synergistic effect of multiple senses.

The application of olfactory and gustatory senses in the packaging design could further support the consumers to perceive the products and deepen the connection of experience and emotion. For example, figure 5 is fruit-flavored aromatherapy candle products of EMMA MOLLY. It shows that the olfactory sense is combined with the visual element to enrich the consumer experience. In the packaging design, the fruit shape is introduced and it simulates the combined experience through the visual element, to support them to think of the fragrance in observing the packaging. Such combined effect enhances the consumer recognition efficiency of products and establish emotional connections with them.

In addition, the designer also infuses the aroma into the packaging box to evaporate it naturally, further enhancing the olfactory experience. Through the comprehensive sensory design, the consumers could deeply experience the product characteristics and emotional values of the brands through interaction of visual and olfactory senses. The combined experience could enhance the product attraction, and strengthen the emotional connection between consumers and brands and products, which is conducive to improve the brand loyalty and consumer satisfaction.



Figure 5. EMMA MOLLY: Fruit-flavored Aromatherapy Candle

Source:

<https://www.jd.com/brand/1620d38295862d3cb7b4.html>

4. Concluding Remarks

Packaging design of “five-sense” experience is an attractive design method, and it is aimed at simulating and utilizing five senses of humans: Visual, auditory, gustatory, olfactory and tactile senses. Such comprehensive design breaks through the boundaries of the traditional packaging design, and stresses the complementation and combination of various sensory factors, bringing the new dimension to the brand building and consumers’ experience.

After combination of the sensory factors, the designer could create rich and unforgettable experiences in the packaging design, so as to give the brand a unique and distinctive image and attract more consumers. The key point is the packaging design shall be consistent with the product positioning. It indicates that the application of the five-sense experience shall be subject to the characteristics of the product, brand reputation and target audience.

Through the case analysis, it could be concluded that the five-sense experience is not applicable to all packaging design. In some circumstances, the core selling point is its convenience, rather than emphasis of the olfactory or gustatory experience. Hence, we shall select the sensory elements in the packaging design according to the product attributes and market positioning, ensuring that it is consistent with the values of products.

Through the five-sense experience, the designer

can make the packaging design more vivid and interesting, and enable the consumers to perceive the unique traits of the products through the visual, tactile, auditory, gustatory and olfactory senses. The multi-sense experience could arouse the emotional resonance of consumers, and meet their curiosity and expectation. The well-designed packaging may bring the reasonable psychological expectations, so that the consumers’ expectations interact with the products, and they could obtain the satisfaction after purchase.

In the era full of personalization and digitization, the brand and product differentiation are quite significant, so the packaging design of the products is also upgrading. The packaging design of “five-sense” experience provides the emotional connection and personalized experience between consumers and brands. Hence, the designers shall innovate and upgrade the packaging design to maximize the values through the sensory experience.

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