

Innovative Application Study Of Label-free Concept In Packaging Design

Zidi Guo

School of Art and Design., Wuhan textile university, Wuhan, China.

Abstract: The lack of an objective evaluation system and monitoring system for product design has led to an endless stream of "formalism" in product engineering, exacerbating the current situation of excessive and disproportionate product design, and even creating an economic and social hazard. This paper focuses on the important role of the "label-free" concept in the design of beverage packaging products, based on three aspects: national environmental protection, product differentiation, and international market trends, while conducting experimental research through data collection and project studies. The aim is to solve the problem of resource waste and environmental pollution caused by beverage packaging through this new design trend.

Keywords: Label-free concept; Packaging Design.

1. Introduction

1.1. Research Background

The main problem in today's product design is not that there is too little design content or no creativity, but rather that product design is out of control. The lack of an objective evaluation system and monitoring system for product design has led to an endless process of "formalism" in product design, which has exacerbated the current situation of excessive and disproportionate product design and even created an economic and social hazard. Excessive design of commodities and food packaging materials are alarming, the packaging materials of commodities are too many levels, the use of excessive materials, excessive structure, excessive surface decoration, excess food packaging functions, food packaging materials, the super high cost of the situation, resulting in the formation of luxury type "gold and silver moon cakes", the Forbidden City supervision "sky dumplings", the enjoyment of "gold tea", "diamond tea" and other luxury goods, and The volume of this moon cake box is usually fifty times more than the inner moon cake or even more.



Figure 1. Keemun black tea



Figure 2. Over-packaged mooncake gift boxes

1.2. Research content and ideas

This paper focuses on the important role of the concept of "label-free" in beverage packaging product design, based on three aspects: national environmental protection, product differentiation, and international market trends. The structure of the text is based on this idea and consists of three chapters: Chapter 1 is the introduction, Chapter 2 is the overview, Chapter 3 is the comparative study, Chapter 4 is the case study, and Chapter 5 is the conclusion and outlook. The first part includes the first and second two chapters, which are the ideological foundation of this paper. The second part includes the first three and four chapters, which are the ideological basis of this paper, analyzing the application and advantages of the label-free concept in packaging design. The third part is the fifth chapter, which presents the conclusion and outlook on the analysis of the results of the investigated research.

1.3. Research Methodology

The survey method is also one of the most common research tools in scientific research. It is a social science research method that systematically searches for material on the actual state or development of the subject of investigation in a purposeful, phased and systematic manner. It combines teaching methods such as the historical method, observation method, and scientific research methods such as visits, questionnaires, case studies, and social experiments to make a conscious, in-depth study and systematic understanding of the current state of education, and to analyze, summarize, compare, and generalize the large amount of data collected from the survey in order to provide a regular understanding. We analyzed the advantages of label-free design by investigating the various aspects of the application of the "label-free" concept in beverage packaging in the market.

The more common questionnaire method is the questionnaire method, which is a scientific research tool that collects information in the form of a written questionnaire, which is prepared by a researcher, issued or mailed to the relevant staff, who is asked to fill in the questionnaire, and then collected and summarized for statistical analysis and research. In this way, the most realistic views of the public on this new design concept are obtained.

1.4. Literature Review

There is little research on the concept of labeling, which is derived from minimalism. Minimalist product design was the most important design as early as during the Second World War, when the market economy was in the doldrums and people were more concerned about the function and quality of products. The products designed by them are simple, practical and quality-based. Minimalism is rapidly developing in various fields, including packaging art. It is worth mentioning that the term "minimalism" is also a term for minimalism, first introduced in the novel "Minimal art" by the theorist Charles Deuchamp, which means to criticize the intentional omission of the design process in order to achieve certain artistic goals. As a language of industrial design, Minimalism reached its international zenith in the 1970s and early 1980s, and became dominant in the home, consumer goods, industrial design, and business services industries. Minimalism has much in common with the rational simplicity of internationalist design and the concept of constructive design, the most characteristic of which is the design idea of "less is more" advocated by the Italian architectural giant Mies van der Rohe. The design method it insists on is to eliminate any redundant decoration that is unreasonable in appearance, so that design and structure can be assimilated to each other, thus producing a form of beauty without decoration. Mies' product design philosophy is reflected in the products he designs, from large buildings to small household products. Japan is also one of the leading countries in the world today that advocates the concept of minimalist product design, and its product packaging has been adhering to the concept of minimalism, and its product design has borrowed from China's Zen Buddhism in the early days, and from this has come the aesthetic trend of "emptiness and silence". This has led to a very simple product concept and packaging with minimalist characteristics, which in turn responds to the traditional aesthetic ideals of the Japanese people. The most characteristic of these products is the "MUJI" series, whose packaging design and simple and exquisite product design concepts have had a significant impact on the international scene.

Minimalism is also reflected in the traditional thought of China, for example, Zhuangzi, a famous ancient thinker in China, clearly put forward the concept of "less is more, more is more" in his philosophical work "De Xing Jing", which means to remove unnecessary areas and keep the most important ones, and clearly put forward the concept of "see the plain and embrace the simple, less is less desire", which means simple and pure, the most simple way to live. This idea is consistent with the important idea of minimalism, which conveys to the world the unique philosophical idea of simplicity and simplicity in China, and also shows the beauty of simplicity and tranquility with oriental characteristics.

Minimalist food packaging design has been demonstrated in the thesis of the doctor of medicine, among which Wei Pan and Li Jianjian's thesis "Analysis of the visual language of modern packaging product design under the concept of simplicity" fully elaborates the specific content of minimalist food packaging design, describes the main trend of modern food packaging design from complexity to simplicity, and studies the common characteristics of the visual expression of some basic elements of modern food packaging. We describe the main trends of modern food packaging design from complexity to simplicity, and examine the common features of the visual expression of some basic elements of modern

food packaging, and also illustrate the practical application of minimalist food packaging product design through examples.

As a derivative of minimalism, label-free design has generated many ambiguities in the academic community. At present, many overseas traditional beverage companies have been going logo-free, and logo-free drinks are an emerging trend in China. Many scholars have raised the question: "Is label-free design the ultimate environmental protection or brand show?" The question is: "Is label-free design the ultimate environmental protection or brand show?" Therefore, the study intends to answer this question by analyzing the use of the "label-free" concept in beverage packaging.

2. Label-free Overview

2.1. Label-free concept

Label-free design means that the product itself no longer has a logo containing the brand and product information, and this information is mostly found on secondary packaging such as cartons. At present, it is mainly used in the beverage industry.

It is reported that, as all kinds of food bottles are generally made of recyclable PET, while the label is rarely used, plus the cap material and different, so in the collection process requires the use of human or machine packaging bottles, caps and labels. When brands remove the bottle logo, it reduces the need to reuse the material throughout the manufacturing process and makes the process of using the material simpler, thus shortening the recycling process. The production and use of high-quality recyclable PET bottles has become another hurdle for beverage companies on the road to environmental protection.



Figure 3. Unlabeled plastic bottles

2.2. Label-free style features

The main features of logo-free beverage packaging products are: the bottle does not use plastic film or paper labels, printed product information such as logos, but presents the product information in other ways; environmentally friendly materials, emphasizing the use of natural and virgin materials, advocating a green and healthy lifestyle; simple, light on decoration, focusing the viewer's eyes on the most essential content; resource conservation, emphasizing the rational use of resources. It also emphasizes the rational use of resources and refuses to be extravagant and wasteful. This shows that the label-free design style is simple and healthy, which is more in line with the concept of green, environmental protection and naturalism that is widely advocated in modern times, and is an important reason why it has gradually become a design trend at home and abroad, and is also very much in line with the sustainable development trend of modern beverage packaging and beverages.

3. Advantages of "label-free" concept in beverage packaging

3.1. Label-free concept definition

Label-free design is an emerging form of design, and its definition is not yet comprehensive. However, because it is a branch of the minimalist school, we should also refer to the concept of minimalism. Minimalism can also be defined as the sense of perfection that comes when the overall content of a work of art is reduced to a minimum. When every part, every detail, and even every connection is reduced to its essence, it will have this characteristic, which is the effect of removing all non-essential elements.

3.2. In line with the concept of green and sustainable development

Commercially available drinking bottles are often made of recyclable PET, but the cap material is often different and the label is often made of disposable PVC, which is one of the highest quality plastic products in the world today. This also means that label-free packaging significantly reduces the production of plastic.

In terms of the recycling process, because the PET bottle and PVC label are so close in volume, they cannot be separated by the lower-cost flotation process, and direct incineration can easily form highly acidic chemicals that are bad for nature and the air. Therefore, the factory introduced label-free packaging to reduce the recycling process, which has the effect of saving resources and reducing carbon emissions. The adoption of label-free recyclable packaging effectively improves the utilization rate of packaging recycling, turning waste into treasure, while giving the environment a low-carbon environmental protection role.

3.3. Create brand differentiation

What is the origin of product differentiation? In marketing terms, differentiation is about getting consumers to notice you, differentiating you from your competitors, quickly distinguishing them from their peers, and matching your actively perceived differentiation with your product and brand to better capture consumers in a homogenized society.

According to Innova Market Insights, 57% of global users admit that a change in packaging design for a familiar product will bring them back to the table. Today, however, the same beverage often attracts media and user attention when the logo is removed, which can provide significant additional exposure and positive promotion.

No Logo also means "to break free and look at things with an unbiased eye". Coca-Cola has launched the "This Ramadan, Get Rid of the Logo" campaign in the Middle East region as a call to action to raise awareness about racial discrimination around the world.

3.4. Comply with the trend of consumer upgrading

Analyzing the current trend of consumerism, one of the trends is that college students are becoming more and more reasonable in their consumption behavior. According to the survey results, 84.18 percent of young people said that they should "spend within their means according to their personal situation and not add financial burdens to themselves", followed by "spend when you want to, without thinking too much" and "choose to pay back after spending", accounting

for 10.89 percent, and 4.93 percent respectively. This shows that young people's "Double Eleven" consumption concept tends to be more rational consumption.

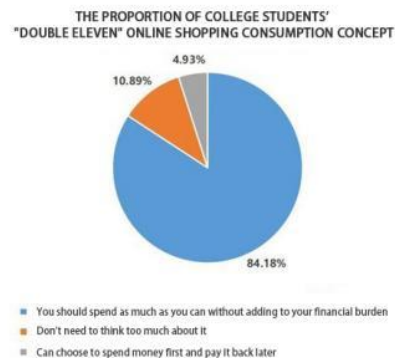


Figure 4. College students' consumer attitudes

Trend two: personalization, fashion has become a keyword. At present, all kinds of consumer groups are becoming more and more diversified, and more personalized new consumption trends are emerging. Consumer demands and consumer ideas are also more diversified, which will lead to a richer consumer environment, more diversified consumer behavior, more differentiated consumer behavior, and a continuous reshaping of the value chain under the general trend of innovation.

Comparative analysis of consumption product structure between men and women of Chinese college students in 2021

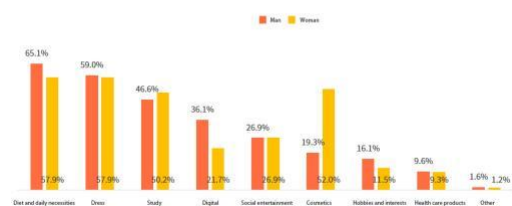


Figure 5. College students' consumer product preferences

4. Application of label-free concept in packaging design

4.1. The meaning of packaging design

Relevant authorities in the packaging national standard (GB4122- 83) in the definition: "packaging materials that are in the delivery of goods to the product has the function of protection, and can facilitate the delivery, improve the sale of goods, through certain means of packaging materials, containers collectively." Through the study of these theories, people can know: food packaging materials have the function of preserving goods, beautifying goods, conveying commodity information, and enhancing sales

4.2. Application of label-free concept

Coca-Cola will launch a label-free product in South Korea for the first time in the world, according to foreign media reports. Coca-Cola said on November 25, 2021 that it will launch Coca-Cola Contour Label Free, a label-free plastic product with a CONTOUR bottle design, which refers to a design with a raised curved shape and a vertical line of surface flow developed in 1915. The Contour bottle design has become a symbol of Coca-Cola, with the goal of "you can tell

it's Coca-Cola even when you touch it in a dark place. While Coca-Cola designed the product without a label, the orthodoxy of Coca-Cola could be continued through the product design alone. The logo and vertical line design incorporates intaglio throughout the product to enhance readability and sophistication. According to Coca-Cola officials, following the release of Seagram Label Free, the first label-free product in the domestic carbonated beverage market in Korea in January, the drinking water spring brands Gangwon Pyeongchang Water and Vio Soonsoo, and the hydration drink Toretta, have also released label-free products. In addition to removing the label and improving recyclability, Coca-Cola Contour Label Free, which has a long history of contoured shapes to reinforce the brand's heritage, is intended to create a new era of label-free 2.0.



Figure 6. Coca-Cola packaging bottle

4.3. Application of label-free concept

The packaging is made of 100% recyclable PET, a significant step towards environmental protection. A barcode is printed on the cap. At the same time, the bottle is embossed with information about the product and the animals in their natural habitat to illustrate the beauty of the environment. The name "C2" is derived from "See Through" or "Circular Economy + 2gether", meaning the brand's mission for the environment. The packaging is designed for bottles without labels and also promotes waste separation and recycling.



Figure7. C2 packaging bottle

In label-free packaging design, bar codes are used to identify the information of the product before it enters the market; then it is classified according to the needs of different consumers and consumer psychology. The purpose is to classify the products without affecting the sales effect, so that consumers can identify them more easily, thus reducing the

ambiguity and overlap in advertising. It is possible to mark a brand separately or distinguish it from other similar products to express a specific attribute or feature or a logo. This design reduces the ambiguity in advertising to a certain extent, making it easier for consumers to understand and remember, thus creating the possibility of purchasing behavior and completing consumption activities; in the process of product sales, label-free packaging can make it easier for consumers to find their own needs or potential value.

5. Conclusion

The birth of label-free packaging is a new type of environmentally friendly materials, which can not only solve the problem of environmental pollution can also protect the ecological environment. In the future, label-free design will become an important part of the new round of market competition. At present, this innovative packaging is listed and sold more in Japan and Korea. I believe we will see this kind of bottles in more countries and regions soon.

References

- [1] Chao Xinjiao,Zhang Sijia. The application of minimalist style in food packaging design[J]. Food and Machinery,2022,38(5):106-109.
- [2] Liu Weili. Over-packaging[J]. Popular Literature and Art,2011(19):284-285.
- [3] Tang Yujing,Minglan. Research on the application of minimalism in packaging design [J]. China Packaging,2022,42(9):53-55.
- [4] Hong Ying,Pan Chen. The application of minimalism in food packaging design [J]. Science and Education Guide - Electronic Edition (Upper),2021(6):258-259.
- [5] Wang Wentian,Zeng Fengcai,Mi Xin. Analysis and research of excessive packaging of children's beverages[J]. Design,2014(4):115-116.
- [6] Tu, Edward, Zhang, Xin. Plastic beverage bottle recycling system based on the "beneficiary pays" principle[J]. Environment and Development,2019,31(6):1-3.
- [7] Li Mingyang. The effective application of minimalist style in modern brand packaging design[J]. Art Education Research,2022(11):94-95.
- [8] Wu Minlin, The use of Chinese traditional cultural elements in packaging design 11) China Packaging, 202141(09):56-58
- [9] Chang Longzhu, Wang Xu, An analysis of the expression of minimalist style graphic design [1]. Grand View, 2017(2):39
- [10] Qin Jingjing. The beauty of simplicity of minimalist style packaging from layout design shallow analysis [J]. Red Son (Upper Mid). 2015,(24).253.
- [11] Sun Qing. On the mystery of the success of the design of "MUJI" [J]. Modern decoration (theory).2015,(10).220.
- [12] Jin Xiaohua. Beverage packaging development status and problems [J]. Packaging World. 2007,(3).30-31.
- [13] Guo Xinhua, Xie Xujun. Five trends in the development of packaging materials for fast-moving consumer goods [J]. China Printing Materials Business. 2006,(1).32-33.
- [14] Jiao Fei. Green packaging of medical devices [J]. China Medical Device Information. 2008,(8).22-23.