Analysis of the mooncake packaging design strategy under the concept of green packaging

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Abstract
In order to improve the current situation of mooncake packaging, which is not concerned with "culture and environmental protection" but emphasizes "luxury and extravagance". This paper first analyzes the mooncake culture, social atmosphere, business behavior, and then combines the concept of green packaging to propose mooncake packaging design methods that meets environmental protection requirements while paying attention to product quality. In the field of mooncake packaging, we can realize the organic combination of environmental protection and tradition culture.

Keywords
green design; packaging design; mooncake packaging

Since the national concept of "double carbon" was proposed in 2020, the concept of green packaging design has become more and more popular, but over-packaged goods are still common. Mooncakes, as an important representative festival gift of Mid-Autumn Festival, have been the "disastrous" by excessive packaging, which has caused waste of resources and environmental pollution.

In this regard, in 2022, the state in the article limit excessive packaging requirements of goods food and cosmetics to amend the national standard, in which the number of layers of packaging, packaging gaps, packaging costs, mixing requirements for moon cakes are clearly defined. However, how to complete the packaging design of moon cakes under the strict standards and the concept of green packaging and realize the innovative approach to promote the excellent traditional festival culture, become the subject to be studied and solved.

The design concept of green packaging

Green packaging is a kind of packaging design concept that integrates the research of material sci-

ence, ecology, green engineering theory and other disciplines to finally form, focusing on the life cycle of packaging production to disposal and concern about the impact of waste packaging on the environment.

Excellent green packaging is not formal and does not use flattering means to design the outer packaging to exaggerate the product's own value in order to cater to customers, but rather innovates the packaging structure based on the premise of green environmental protection, fully considering specific details such as recyclability, biodegradability, printing ink categories, etc. while saving materials and costs, considering both immediate benefits and future impacts.

To some extent, there is a contradiction between green packaging design and modern commodity thinking. However, the development of social and market economy level will certainly promote the development of packaging product design, so that it can better serve the marketing of products and further realize the consumer's requirements for quality and brand. Therefore, the green packaging concept should be brought into play to curb the development trend of packaging disorder, while opposing a broad-brush approach to "subtraction", and reasonably optimizing the materials, structure, and shape of product packaging to enhance the environmental attributes of product packaging. Therefore, the study should not consider the green packaging concept as an isolated one-sided technical theory, but should focus on analyzing the connotation of the traditional festive food of mooncakes and the current market situation, taking into account environmental protection and efficiency, and conducting an in-depth analysis of the current situation of the product.

Analysis of the current situation and root causes of moon cake packaging

In terms of representation, the current mooncake packaging problem is mainly reflected in two aspects: excessive packaging design and mixed mooncake packaging design. The evolution of mooncake packaging is undoubtedly a market-regulated design development process, but with the development of society, the disorderly competition and pandering culture of the mooncake market has caused waste of resources and environmental pollution.

Although the "strange situation" of moon cake packaging is a problem caused by unreasonable packaging design, it is necessary to analyze the problems faced by the product from the development and changes of the commodity itself in order to improve the status quo through the green packaging concept. And from the connotation, market, consumers and other perspectives to explore the real relationship between its packaging design and production and sales links, to explore the internal causes of the moon cake packaging luxury into the wind. Thus, we can prescribe the right remedy and precisely combine the design concept of green packaging with the reality to finally re-

alize this concept.

Mooncake connotation gradually alienated - weak packaging connotation

The Moon Festival is the second most important traditional festival and public holiday in China after the Spring Festival, and is called the Mid-Autumn Festival because the following day falls in the middle of mid-autumn. As for the custom of eating moon cakes, it can be traced back to the Ming Dynasty. In folklore, mooncakes are a kind of tribute to the gods and ancestors, as well as a festive food with the meaning of family reunion and happiness, and the act of making, giving and eating mooncakes is a Socio-cultural activity that is highly valued by the people with national cultural characteristics.

Nowadays, the connotation and function of mooncakes have been greatly alienated. As people's living standards continue to improve, the mooncake's attributes as food have gradually weakened, retaining only the symbolic meaning of a festive food. Consumers tend to buy mooncakes not for consumption, but more as a gift, which means that the development of mooncakes itself has a tendency to symbolize, and the related packaging design will pursue the alienation of commodity positioning to change. This has led to mooncake packaging becoming more and more superficial, with overpriced gift boxes repeatedly banned, while consumption is difficult to match its "gorgeous" appearance. Blindly novelty, greedy for large and fashionable but no connotation of the packaging design will only further lead to the gift box moon cakes and moon cakes cut off.

Wastefulness is still prevalent - excessive packaging

The phenomenon of comparison of favors and wastefulness is common throughout China, and such phenomenon is more serious in some less developed areas. While it is a positive term for a harmonious interpersonal relationship, there are a large number of consumers who pay excessive attention to pomp and circumstance, emphasizing the specifications and face of gift-giving. In fact, mooncakes in gift boxes are also a product of this demand, and have a complex packaging structure. The structure itself is not for the convenience of transportation or preservation of freshness, but only for the sales process to attract consumers' attention. Even though the National Development and Reform Commission, the Ministry of Industry and Information Technology, the Ministry of Commerce and the State Administration of Market Supervision and Administration jointly issued a document with strict restrictions on mooncake packaging (such as precious metals, mahogany and other materials cannot appear in the packaging), mooncake packaging is still using plastic and other environmentally unfriendly materials China's annual production of packaging waste is still climbing at a rate of about 10%, the recovery value of only 10% of the proportion of renewable resources recovery. Therefore, the design of the packaging structure still needs to be optimized, and relevant regulations still need to be improved.

Excessive profit-seeking by merchants - stealing concepts

In the mooncake packaging chaos, some businesses create gimmicks for their products to grab more profits, maliciously pile up materials and abuse ingredients in production, completely ignoring the traditional culture of the Mid-Autumn Festival and the inherent meaning of mooncakes, and only interpreting mooncakes as "pies". These "moon cakes" are often printed on the packaging with advertising words such as "innovation" and "national trend" to change the concept. Although mooncakes have undergone many innovations since their birth, innovation should not completely overshadow tradition.

A typical example is the Amalee brand bird's nest gift box mooncakes sold on various e-commerce platforms (Figure 1) for $492, with each mooncake selling for as much as $61.50. Despite such a high price, the product is very different from mooncakes in the traditional sense from the outer crust to the filling, and even uses English as decoration in the mooncake molds (Figure 1). However, in the process of promotion, the traditional elements such as "national trend", "Chinese knot" and "classic" are emphasized. These operations often make it difficult for consumers to distinguish and eventually "fall" into the calculations of the business.

The harm of such "innovative" behavior is huge. On the one hand, such "mooncakes" are often difficult for the market and consumers to distinguish between the concept of "mooncakes" and the traditional culture of the Mid-Autumn Festival, and on the other hand, they have a strong penetrating power. When such products appear repeatedly, the true concept of traditional festival culture is constantly weakened. At the same time, due to the continuous emergence of such products, the market space of traditional mooncakes will be seriously squeezed, which is not conducive to the inheritance and development of traditional culture in the long run.



Figure 1 The concept of "mooncake" stolen

Design strategy under the concept of green packaging

Emphasize traditional culture and restore the festival experience

Traditional festivals are important folklore events, and the Mid-Autumn Festival is an important carrier of Chinese characteristic folklore and an important part of intangible cultural heritage. The alienation and weakening of the festival connotation has led to the packaging of mooncakes becoming more and more superficial and unable to reflect the festive atmosphere and cultural connotation of traditional festivals. The traditional festival culture is the space and time for the inheritance and development of intangible cultural heritage, and it is an important field that carries the collective memory and cultural identity of Chinese people in different historical periods. Therefore, when designing moon cake packaging, we should take the traditional culture of Mid-Autumn Festival as the basis, explore the cultural connotation of Mid-Autumn Festival, seize the difference between moon cake and "pie" in the cultural and folklore level, and design it based on the long-standing Chinese traditional culture.Mooncake, zongzi and other traditional foods have been innovated through generations and have long accumulated very rich artistic expressions, which are the treasures of the excellent traditional culture of the Chinese nation in the field of art. They have a unique cultural connotation and hide the key to cultural revival, so the traditional cultural connotation behind mooncakes should be fully respected and protected when designing mooncake packaging.

Under the premise of valuing cultural traditions, packaging, as a visual and tactile extension of the commodity experience, is a unified whole with the commodity itself, and good commodities should have packaging to match. Mooncake packaging is designed from the consumer's perspective to enhance the consumer experience in the process of discovery, purchase, unpacking, consumption and recycling, and to try to restore the traditional "familiar feeling" and the originality of mooncakes. In the selection of packaging materials, we also look for new methods and materials to highlight the "nostalgic" sentiment and present a retro texture. In the actual application process, reference can be made to, for example, traditional calligraphy art, traditional paper-cutting art, traditional pattern art, etc. to enrich the humanistic sentiment and product characteristics of product packaging. At the same time, the actual operation process needs to avoid becoming a completely rigid copying behavior, and certain hygiene and environmental issues of the past should also be innovated with innovative means.

Improve environmental awareness and eliminate excessive packaging

In terms of the environmental friendliness of mooncake packaging, the first task is to establish widespread recognition of the concept of green packaging. Internationally, the Ellen MacArthur Foundation launched the Global Commitment to a New Plastics Economy to promote green pack-

aging and reduce plastic use, which has been signed by more than 350 companies to date. In China, the State Administration of Market Supervision and Administration and the National Standardization Administration promulgated the Green Packaging Evaluation Methods and Guidelines, which put forward four major requirements of low carbon, energy saving, environmental protection and safety. However, in the field of moon cake packaging, plastic packaging liner, plastic sealing bag, plastic shaped shell is still a common means of packaging, we should increase the supervision of functional departments to enterprises to reduce the unnecessary use of plastic. At the same time, the design and production manufacturers should raise environmental awareness and establish a sense of corporate social responsibility while developing profitably. Packaging materials should be environmentally friendly innovation, strict control on the moon cake materials, and cultural connotations in the packaging design. And to stop unscrupulous business practices at the cost of the environment, for the sake of eye-candy and profit without regard for others.

In the selection of specific packaging materials, priority should be given to low-cost, recyclable, easily degradable green materials. While considering environmental protection, food hygiene and safety requirements should be taken into account; for example, materials such as bamboo, corrugated paper, and bionic materials have both of these characteristics. In addition to the choice of materials, mooncake packaging should also streamline the structure, or by amplifying the storage function of the product packaging itself, so that consumers can use the remaining box as a storage vessel for miscellaneous items after eating the mooncake.

In addition, to strengthen the sense of innovation in environmental protection packaging solutions, more innovation in packaging methods, while retaining the traditional cultural connotations of the moon cake itself, the use of materials such as recycled materials, organic materials and other materials to solve the problem. In the background of the prosperity of e-commerce can also learn from the Qingming Festival "cloud sacrifice" model, highlighting the virtual packaging design, in the physical packaging design focus on simplicity, environmental protection and health. Only to achieve the green packaging concept in the packaging mode of innovation, in order to truly achieve the development of green packaging concept, but also to completely eliminate the environmental hazards caused by excessive packaging.

Control packaging costs and create an audit mechanism

As with other commodities, the packaging costs of mooncakes are reflected in their selling price. The price increases with the cost of packaging, while the quality of the goods itself is not improved, it is clear that this design approach is undoubtedly stupid to buy a box and return the pearl. Although in the Restriction of Excessive Packaging Requirements of Goods Food and Cosmetics limited the number of layers of gift boxes, volume rate and other parameters of the range, but in order

to further curb the moon cake packaging chaos, to control the cost of packaging as an entry point or a viable approach. The article refers to the control of packaging costs is not just a matter of controlling the proportion of packaging materials in the cost of goods, but a design concept to control costs. Modern design emphasizes the design spirit of function, simplicity and high generality, while mooncake, as a food, should be designed with its own value as the core. In the design process, there should be less packaging, less intervention and appropriate white space. Such design thinking can fully demonstrate the long traditional cultural heritage of mooncakes, and secondly, the simple and rustic packaging can well combine organic and environmental materials to further reduce costs and environmental pollution.

It is true that quantitative management is immediate and fair. But the mooncake market is quite vast, the types and grades of mooncakes are very complex, and the positioning and operation mode of each enterprise are different. Managers should be cautious about the environmental aspects of mooncake packaging, and the review of mooncake listing should also be more stringent, in the face of controversy from the perspective of respecting tradition, protecting the environment, and safeguarding consumers. At the same time, the design of the moon cake packaging scheme should be reviewed several times, and the concept of green packaging should be started before production, which can also better protect the interests of enterprises and effectively avoid losses and waste caused by non-compliance after production.

Encourage green innovation and develop according to characteristics

From the long-term perspective of the development of mooncake packaging design, the implementation of green packaging concept should be a multi-dimensional and multi-level systematic behavior. In the whole green packaging system, green innovation should be used as the core keyword throughout. This green innovation is specifically expressed in the cultural concept with the cultural connotation of Mid-Autumn Festival as the core and cultural characteristics, as well as the standardized business model guided by environmental protection and low-carbon thought. The so-called green innovation, to a large extent, is also the innovation of specific management models and mechanisms. Due to the boom in e-commerce platform shopping and delivery business in recent years, online sales have become the most important way to market mooncakes. In order to meet the status quo, it is also necessary to reconfigure the traditional logistics methods. We can consider more impact and extrusion resistant designs in product packaging materials to reduce complex and ineffective packaging structures. A "paper-forming" packaging material structure can be adopted, using all corrugated paper instead of foam plastic to achieve the effectiveness of product fixation. The logistics industry also needs a more convenient and intelligent way to classify products, thus reducing the investment needed to keep them fresh and resistant to damage.

The development of commodity characteristics is then an extension of the green packaging concept, which requires the management to screen the market, enterprises and commodities above the green packaging model, and divide the commodity grade, commodity packaging model and commodity sales model. Support the special moon cakes around the world, encourage self-production and self-marketing of moon cakes to reduce transport losses and packaging waste. Both the strict implementation of green packaging-related regulations, but also to retain the various functions of moon cakes, to ensure the minimum impact on the environment to meet the needs of consumers.

Conclusion

With environmental protection gradually becoming a general consensus in various industries, mooncake packaging is receiving more and more attention in the field of green packaging. Through four aspects: culture, concept, regulation and innovation, the article provides a path to realize mooncake packaging under the concept of green packaging. Through a multi-dimensional analysis to achieve a sustainable design overview of the whole process of mooncake packaging, it provides a reference suggestion for the design of mooncake packaging under the green packaging concept after the promulgation of the new national standard.

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