

Visual Design and Consumer Psychology of Children's Food Packaging in China

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Abstract

With the improvement of people's quality of life, more and more attention is paid to the safety and health of food, and food packaging has also received wide attention. Nowadays, children, as the main consumer group in the family, play an important role in the family. At the same time, children are a special consumer group in the family and have different aesthetic characteristics from adults in terms of psychology and physiology, which affect the main consumption factors of the family. With the development of society, the care and love given to children by families has been further enhanced compared to the past, and families have given more choices to their children, and more and more children have certain decision-making power when purchasing children's food. Therefore, many people focus on children's food packaging design, children's food packaging visual design and consumer psychology have an interactive relationship, for children's psychological and physiological characteristics, as well as children's consumption needs, in children's food packaging also integrate more in line with the children's aesthetic visual design, can stimulate children's imagination, promote children's physical and mental and health development, combined with children's consumption Psychological characteristics, design packaging design in line with children's aesthetics, to promote the purchasing power of food, while enhancing economic efficiency.

Keywords: Children's Food Packaging Design, Consumer Psychology, Children's Consumption Needs, Children's Cognitive Ability

Introduction

The development of contemporary society cannot be separated from packaging, and packaging also affects the development of society and people's life at all times. In supermarkets, we can see many kinds of food packaging everywhere, and some large supermarkets even have tens of thousands of types of packaging. For so many kinds of goods, consumers often depend on the packaging of the product for their own intuitive feeling, the goods are usually through the packaging to attract consumers. The contemporary packaging of goods we define is not limited to the meaning of protection of goods, but gives more connotation, through its gorgeous shape packaging design to attract consumers to buy, so as

to enhance the sales force of the product. Experimental psychologist Chiritra has made a famous psychological experiment. One is about the source of human access to information, he confirmed through a large number of experiments: 83% of human access to information from the visual, 11% from the auditory, these two add up to 94%. Another 3.5% comes from smell, 1.5% from touch, and 1% from taste (Chiritra, 2007). Through the data we can learn that the largest way for human beings to obtain information comes from the visual communication, people visually see a wide range, but can instantly focus on a certain point of the range is very small, therefore, to attract products to rely on their own unique packaging design to attract the attention of consumers, in the visual range, can quickly lock to a certain commodity. Because packaging design is carried out in a limited space, and because it must be noticed by customers in a relatively short period of time and to make them want to buy, so it has a very strong time and space constraints. This restriction requires the packaging design to have a strong visual impact and expressiveness to attract the potential customer group (Yao, 2016).

According to the "China Baby Food Industry Development Prospects and Investment Risk Forecast Analysis Report 2021-2026" released by China Industry Research Institute, the average annual consumption amount of children per family is 17,000 to 25,500 yuan, and the national annual children's consumption market is about 3.9 trillion to 5.9 trillion yuan, and children's daily snacks are one of the important expenditures. China's children's food market is expected to reach \$21 billion in 2023, and the children's food market will reach \$100 billion in the future (2021-05). It can be seen that children have become the main group of market consumption, but children belong to a special consumer group, they have their own unique aesthetic characteristics and thinking ideas, the perception of things also have a relatively strong sense of cognition and rejection, therefore, in the children's food packaging design, the production of food for children not only to ensure the nutrition and taste of food but also pay attention to the food packaging, business in the design of children's When designing children's food packaging, businesses should consciously cater to consumers' psychological and functional expectations, so that children's food product packaging is safe, convenient, and interesting to catch children's eyes (YinYinan, 2021). The visual design should meet the aesthetic preferences of children, visual elements cater to the aesthetic characteristics of children, and design green packaging design with bright colors, rich visual elements, and rich imagination.

According to a survey, 62.6% of customers in China's supermarkets shop without a purchase plan, and 54.9% of people in the country have such a purchase habit, which means that the purchase of goods without a purchase plan is the main purchase psychology of Chinese consumers (LuoZiming, 2002). Children's market is a market with huge consumption potential, and studying children's consumption psychology can help companies to produce and design products more purposefully and implement marketing strategies more purposefully (Yuanyuan, 2013). With the development of the economy, in today's era of material abundance, people pay more and more attention to the investment in children's consumption, according to statistics, 40% of the total household expenditure in China, about 40% of the money spent on children, children in the modern family consumption structure has a very important position. The children's products market is a vibrant consumer market with huge business opportunities. From the perspective of children's healthy development and mental growth, it has become a common concern for developers, designers and the whole society to discuss the packaging design of children's food products (Meng Qinghong, 2009). According to the study of Roedder-John, a famous American scholar, children's

consumer knowledge, skills and values are divided into three stages: perception stage (2-7 years old), analysis stage (7-11 years old) and reflection stage (11-16 years old) to study and analyze children's consumer psychological characteristics (Sun Jinhua, 2009). Children between the ages of 2 and 7 years old belong to the perception stage, in which children's perception of brands is based on their own perception of brand characteristics, and they observe the details of brand characteristics through their own perspective. Children of this age have a vague understanding of brands and do not use the brand's popularity to influence their own preferences for brands. Children between the ages of 7 and 11 are in the analytical stage, where they have the ability to identify brands and analyze them effectively, and can better understand brands and product sales markets in terms of consumer psychology. The most important characteristic of children in this stage is that they have knowledge of society and can identify with brands in accordance with the development of society. The most important feature of this stage is that children are more socially aware and can identify with brands as society develops. They are reflective about brands and their psychology of brand identification has more social implications for their parents and friends. Therefore, understanding the psychology of children's consumption in each period, targeted visual design for children's food packaging, not only can win the love of children, but also can greatly enhance the sales force of the product, increasing brand benefits.

The current situation of China's children's food market

With the implementation of China's two-child policy, the size of China's child population is expanding, and according to national statistics, the number of people aged 0 to 14 in China has reached 235 million. With the huge number of children, the "children's economy" is heating up, and various consumer products for children are taking up a more and more important position, and the market share of children's food is also facing a huge increase (Wei, 2022). With the increase of consumption ability, parents' requirements for children's food are getting higher and higher, and safe and healthy children's food is the first choice of parents, and parents' attitude towards children's food determines the development status of children's food market. A survey conducted by the China Youth Daily Social Survey Center and Questionnaire.com among 2003 parents of children interviewed found that 84.8% of the parents interviewed preferred to buy products with the word "children's food" for their children (China Social Youth Daily, 2019). According to the Food Safety Law, the National Health Commission and the General Administration of Market Supervision jointly issued Announcement No. 3 of 2021, releasing 50 new national food safety standards and four amendment sheets. In order to protect the health of special populations of infants and young children, the Commission organized the revision of "infant formula" (GB10765-2021) "larger infant formula" (GB10766-2021) "toddler formula" (GB10767-2021) and other three nutrition and special diet food standards. The development of revised and implemented a series of standards for infant formula, is an important means to ensure the safety of infant formula, nutritional adequacy, is to guide and regulate the scientific production of food manufacturers technical requirements, is an important basis for regulatory authorities to carry out supervision and enforcement (Food Safety Law, 2021). The new provisions for children's food to further regulate, but only for infant and young children's food to do more rigorous provisions, for the larger children's food is not rigorous norms and revisions, so there is a part of the children's food, the word "children" to name, to gain the trust of parents, but from the ingredients, and ordinary There is no difference in the ingredients. Therefore, it is crucial for parents to carefully check the labels and nutrition tables of prepackaged foods for their

children, and to reasonably purchase foods that are suitable for the nutritional needs of children at their age. To ensure children's food safety and health, children's food companies should take responsibility for children's growth and health, deepen people's knowledge of "children's food" and allow consumers to identify children's food that has real nutritional value.

Children's Food Packaging Visual Design

Children's food safety and standards in the gradual promotion and implementation, the future of children's food packaging should be a combination of safety, health, functionality and fun, that is, in the food packaging to ensure the safety and health of food, but also from the shape of the design to attract the interest of children. And also through the packaging, so that parents can effectively and quickly identify food-related information, to facilitate parents can buy children's food according to demand.

Children's recognition of children's food is mostly related to children's life. As children's recognition ability for words is limited, most children's recognition of food is to rely on graphics to identify, graphic content in response to the food content should also focus on things that children can accept, graphic content is simple, intuitive, interesting, so designers are accustomed to using graphic design in children's food packaging design, through the image of graphics to express the content of the product, so that children can quickly recognize the information content of the product. Graphics can achieve a kind of silent communication with children, through graphics to identify food, can make children have more options to choose their favorite children's food.

Interesting graphics are easy to attract children's attention and make them impressed, and can also convey visual information more effectively. For children, text information does not attract children's attention, while interesting graphics are more in line with children's psychological characteristics. Some exaggerated, anthropomorphic animal and plant graphics make the packaging appear more vivid and interesting, full of personality, which is exactly in line with children's psychological characteristics. At the same time, due to the limited recognition ability of children, interesting graphics are more convenient for children's recognition and memory. Some boring words can be better conveyed to children if they are expressed by graphics, which also makes children more impressed, so that they can quickly find the goods they need when they buy them next time. Graphics in children's food packaging in a variety of forms, the content represented by different, some are children say familiar characters cartoon image, printed on top of the children's food packaging, with the influence of the star to attract the attention of children, this "star effect" by children's favorite, can greatly enhance the sales force of the product. There is also a part of the food packaging graphics is to food raw materials as graphics, intuitive display in the food packaging above, in terms of children can easily understand what ingredients are included in the food, so that the understanding of the food is also clearer. There are also some graphics is the image of food in the form of graphics directly displayed, so that children can easily understand the image of the internal food from the packaging, some children's food food is also very vivid and interesting, such as the shape of some food to make children like cartoon graphics, such as the shape of a small fish, the shape of the car, etc., the food will be visually displayed in the packaging above, can make children to the internal The food can make children have great interest in the internal food, through the food packaging to understand the internal food, is also a children's food packaging design often used in the design method.

Wang Wang Group's very cute children's snacks, Wan Chai small cookies, are loved by children. In the packaging design, the cartoon image of Want Want, which is very familiar and loved by children, is used, and the image of Want Want is put on a cute coat corresponding to the product. For example, Wan Chai bear cookies, Wan Chai wears a cute bear coat and holds a bear-shaped cookie which is exactly the same as the product inside the package. At the same time, there is a chocolate-shaped graphic on the top of the box, which allows children to easily capture the taste of the food, and combined with the cartoon image of the product, it is easy to know that the food inside is chocolate-flavored bear cookie through the graphic communication on the package. There is also a cute sticker inside the box, which can create interactivity with children and attract their interest more, and at the same time, it is consistent with the product from inside and outside, which also stands out among many food packaging designs (Figure1). In addition to Wan Chai bear cookies, there are also a number of Wan Chai cookie families, such as Wan Chai small potato cookies, Wan Chai milk cookies, Wan Chai chocolate wafer cookies, and Wan Chai animal family cookies, all of which are combined with the inner products from the outer packaging, putting Wan Chai in a cute coat and making the inner cookie images in the shape of cute animals and milk bottles, such as animal family cookies, which have seven different shapes inside, including lions, elephants, tigers, cats, cats, cats, etc, Elephant, tiger, cat, pig, dog and donkey, seven cute animal-shaped cookies, which greatly arouses the interest of children. In addition to the cute appearance of the Wanted series, like the bear cookies, each package has a corresponding sticker, which allows children to interact with the product while tasting the delicious food, making the product more interesting (Figure 2).



Figure1 : Wang Zai Bear Cookies Packaging Design Want Want Group China



Figure2 : Wang Zai Series Biscuit Packaging Design Want Want Group China

In children's food packaging design, in addition to graphic design, color is also an effective way to attract children's attention. Studies have shown that by using color elements in children's food packaging design, it is very attractive to children because children are sensitive to rich colors due to their age, so that children can enjoy delicious food and have mental pleasure at the same time, so it is important to strengthen the research on color elements in children's food packaging design (Xu Tianyun, 2021). Color also plays an important role in establishing brand image and recognition, and people of different ages respond differently to color. For children, bright colors, such as red, blue and yellow, are often used to stimulate their senses and attract their attention. As children get older, designers can incorporate more colors to meet their changing preferences and interests. There are also foods that can be color-coded to differentiate flavors; different colors represent different tastes, and children can easily taste food products through color and graphics. For example, the package design of potato chips of Hollis Group, orange represents honey milk flavor, brown represents steak flavor, green represents fresh tomato flavor, and yellow represents original flavor. Different colors are used for different flavors, and with clear and easy-to-understand pictures to explain, children can easily distinguish flavors and choose the right food for themselves (Figure 3).



Figure 3: Potato chip packaging design, Orion Group

In a marketplace of various children's food options, color plays a critical role in standing out among packaging design products. The effective use of color can differentiate a product on the shelf and attract the attention of children. Vibrant and contrasting colors create visual impact and draw the eye to the package. Packaging design for children's food should also communicate the nutritional value of the product. Colors associated with health and freshness, such as green and yellow, can be used to emphasize the use of natural ingredients or the inclusion of fruits and vegetables. This helps parents make informed choices while appealing to children's desire for tasty and nutritious snacks.

Cognitive Abilities of Children in Different Age Groups

Children of different ages have different levels of cognition, and their visual cognition varies to some extent, as do their aesthetic preferences (Xiaoyan, 2020). Children in infancy are curious about everything around them because they have just been born. Children in this period rely entirely on simple graphics in life to produce memories of things, and they are impressed by things with larger graphics and brighter colors, but they do not have much knowledge about whether they look good or not, and they prefer to choose things they are familiar with in product selection. For children in this age group, in food packaging design, you can choose a strong visual communication, more intuitive design, such as some photography pictures, can be intuitively displayed to attract the attention of children. Children in early childhood, already have a certain cognitive ability, can identify some slightly complex graphics, this stage of children's awareness of graphics has been formed, the need to consider gender differences in graphic design, in the color, function, and shape of the distinction. According to psychologists, 3-7 year olds are more likely to choose geometric patterns intuitively and have the highest cognitive ability for circles. Therefore, interesting graphics at this stage should be designed from the appearance of things, while focusing on the reasonable matching of colors (Yuru, 2018). Children in the childhood stage are basically formed in all aspects, have gradually formed the cognitive ability of things, will have some new insights into food packaging design, but also can understand some more abstract images, but also to increase some children and packaging interaction, stimulate the further

development of children's brain. Vision is an active form of sensation. Children are typically visual creatures and vision is the most dominant way children perceive things (Arnheim, 1998).

Children's Consumer Psychology

Children's food to stand out in the fierce competition, we must fully understand the children's consumer psychology, in order to get more children and parents trust. In the infant and toddler period, belongs to the passive consumption period, because this period of children can not take the initiative to buy and consumption, but this period of children have formed a certain consciousness, for like things can be expressed in their own way, interested in things will take the initiative to reach out or cry to get what they want. But this period of children do not have the right to choose, the main right to choose in the parents, so the design of food for infants and young children should take into account the preferences of parents and pay attention to the information points that parents are concerned about, such as product safety, health is the first choice of parents for children's food. Preschool children belong to imitation consumption, this period of children's consumer psychology belongs to the imitation period, their level of self-awareness is still relatively low, for young children's consumption behavior, they have a certain imitation, around the children like or think that a certain food is good, they will go to imitate and buy, without the formation of self-awareness. Children in the adolescent period begin to have the consciousness of self-consumption, and the consumer psychology is gradually mature, they will take the initiative to choose their favorite children's food, have the right to choose the goods, and also want to be different when consuming. They also want the best and the most unique, and form a consumer mentality with individuality. In the whole children's consumer market, although in different periods of children's consumer psychology is different, but in general, children for adults, is still a group of special consumer groups, their minds are not yet developed, for some things of understanding and views also adults have different places. Most children's consumer emotions are not stable, will choose according to their own preferences to meet their own aesthetic packaging of food, but also by the outside world influence, lack of effective control of emotions and the ability to optimize regulation. When children buy children's food, they mostly look at the appearance of the food to choose, and do not pay more attention to food safety and health as their parents do, their choice is limited to whether the appearance of the food packaging design meets their own aesthetic, which is also the majority of children's consumption characteristics.

Children's food packaging visual design under the performance of consumer psychological characteristics

Different age groups of children, children of different genders have different preferences for food, due to certain differences, therefore, for children's food packaging design should also be based on the age characteristics of children, gender characteristics, according to their consumer behavior, consumer preferences, consumer psychology research, will be conducive to children's food packaging design, more attractive to children, to obtain better sales. There are many kinds of people's perception, and vision is an important experience of perception. The graphic design of children's food packaging is presented to children in visual form, and the graphics on these children's food packaging are transmitted to the brain in the form of visual stimuli, which in turn produce a psychological response (Liu Chunlei, 2013). Therefore, when we study children's food packaging design, we should fully consider the psychological characteristics of children's consumption and design packaging design that meets children's

aesthetics, and simple and intuitive content is more easily accepted by children. How to make children interested and memorable to the product in the food packaging design, two issues should be paid attention to in the design process. First, the information of children's food should be focused in the form of graphics to disseminate the effective information graphically. Combined with children's cognition of graphics, the concept of health as the leading, in the packaging design to stimulate children's imagination, to meet the emotional needs of children. The second is to always pursue the concept of health in children's food packaging design, not only to attract consumers with the informational features of the packaging design, but also in the design concept of health, to bring consumers a good feeling. Children's thinking is relatively simple, designers should always keep a child's heart in the design process, to see things from a child's point of view, to experience the logical way of thinking of children, to design packaging design that meets the aesthetic preferences of children. Also highlight safety features and certifications on the packaging to assure parents and caregivers of the product's quality standards. Use symbols or icons to convey allergen-free, non-toxic or organic attributes that instill trust and peace of mind. While visual design is essential, it should always be consistent with the nutritional value and quality of the product. Strive to strike a balance between visual appeal, informational content and responsible marketing practices to create a positive and impactful package design for children's foods.

Discussion and Conclusion

Excellent children's food packaging design can not only reflect the characteristics of the goods and convey the information of the goods, but also bring children the feeling and experience of beauty. The huge children's consumer market, a variety of types, how to make products stand out in the many competition, from the design point of view, not only the designer for the product should have a full understanding of the product, through the characteristics of the product, design a design work in line with the aesthetic characteristics of children, but also in the design concept should be constantly innovative, and constantly understand the analysis of children's consumer psychology, always pay attention to children's consumer philosophy, pay attention to parents for product information. At the same time, it is also hoped that through the use of graphics, more accurate positioning of children's food packaging design, to meet the psychological needs of children, greater play the role of children's food packaging design education guidance, to help children choose healthy food. From the consumer's point of view, children and parents are the main consumers of children's food, different food, to accurately correspond to its target consumers, younger children, the children's food purchase dominance in the parents, therefore, from the parents' point of view to choose children's food, pay more attention to the health and safety of food, in the food packaging design whether it can clearly capture the important information about the product, whether from the text to get Whether it is from the text, or from the picture, intuitive and accurate information, is the most important condition for parents to choose whether to buy this children's food. For children who have the ability to buy and have the right to choose, they pay more attention to the visual information brought by the graphics and colors of the product, whether the packaging can attract the attention of consumers, and whether it can attract the interest of consumers. Different products correspond to different consumers, analysis and understanding of consumer psychology, in order to better design a suitable children's food packaging design, to enhance the sales force of the product, in order to achieve the purpose of improving economic efficiency.

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