Research on the Application of Fun Design in Children's Product Packaging Design

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Abstract: With the development of the times and the prosperity of the market economy, the packaging of products is also developing towards a more diversified and personalized direction. Good packaging design can not only make consumers feel happy, but also increase product sales and enhance the competitiveness of enterprises. As a special category, children's products are subject to double screening by both users and guardians during the sales process. It is not only necessary to consider the basic functionality, but also the user experience of children. Packaging is an important component of a product. Compared to adults, children often rely on intuitive feelings when choosing products. Therefore, only by fully understanding children's preferences and incorporating fun design into product packaging can it more easily attract the attention of children's consumers and increase their purchasing desire. In this study, the author analyzed the feasibility and importance of applying fun design to children's product packaging design through research methods such as literature review, case analysis, and field research. The conclusion was drawn that fun design can enrich children's aesthetic taste and enhance product competitiveness. On the basis of consolidating research theory, analyze the expression forms of graphics, colors, shapes, and other aspects in the fun design of children's product packaging, and apply them to the design practice of Aomiao children's sock packaging design.

Keywords: Fun Design; Children; Packaging Design.

1. Introduction

1.1. Background and Purpose of the Study

1.1.1. Research Background

In recent years, with the development of the times, China's fertility policy has been constantly updated, and the promotion of the "two child" to "three child" policy is sufficient to demonstrate the importance that the country attaches to children. In terms of economy, the country's strength is becoming increasingly strong, and people's living standards are generally improving. Parents are willing to invest more funds in their children's education and life, and have higher standards for the products their children use daily. Packaging design is an important part of products. In the current era of rapidly changing technology, consumers have higher requirements for product packaging. It is not only necessary for packaging to have a basic protective effect on the product, but also to consider the delicacy and aesthetics of product packaging. In the market, due to the increase in technology and demand, the variety of children's products is developing towards a more diversified and personalized direction. In order to achieve better efficiency, children's product companies need to upgrade their products in various aspects to enhance market competitiveness, refine different products, and study the psychological characteristics of children of different types of products and age groups. More and more parents born in the 1980s and 1990s are becoming the main force in the children's product market. These young parents often have more advanced educational concepts and respect their children's wishes more in the process of purchasing products for their children. Children have a unique consumer psychology and tend to pay more attention to the visual impact of product packaging compared to product content. Therefore, more and more interesting designs have emerged on children's packaging, and how to make children's product packaging more interesting has become a new research trend.

1.1.2. Research Objectives

This study analyzes the feasibility and necessity of applying fun design in children's product packaging, collects different forms of expression in existing children's product packaging design, analyzes positive and negative packaging design cases, and grasps basic concepts to avoid making the same mistakes in future designs. Firstly, understand the appeal of fun design to children's consumers, analyze and study different types of fun design elements to determine the different effects of different factors in attracting children's consumers, and reveal children's aesthetic preferences and psychological characteristics in packaging design. And summarize the effective design logic in increasing the packaging design of children's products, and based on this, carry out one's own design practice, design a set of interesting children's product packaging that meets the aesthetic needs of both children and parents, and is suitable for the product itself, and propose new design ideas for the packaging design of children's products.

1.2. Research Status at Home and Abroad

1.2.1. Domestic Research Status

Chinese researchers have conducted some research in the field of fun design. In her 2015 article "Analysis of the Application of Fun Heart Elements in Children's Product Packaging Design", Zhang Shan elaborated on the issue that products currently on the market in China cannot effectively attract children's attention. Based on this situation, she elaborated on the characteristics of packaging design that can attract children's attention, namely rich colors, freshness, vivid patterns, and fun. Meanwhile, in order to reflect these characteristics in packaging design, Hu Yilin further proposed in her 2018 article "The Application of Fun and Practicality in Children's Food Packaging Design" that it can be achieved through graphic design, color matching, material selection, and enhancing interactivity. Moreover, promoting children's
interest in products through packaging design requires relevant research based on children's psychology to a certain extent. For example, Lin Danchuan proposed in his 2020 article "Analysis of Design Psychology in Children's Product Packaging Design" that due to children's primary perception of things through touch and visual perception, the importance of color and material selection in product packaging design has been elevated to a certain level, that is, through the mutual coordination of patterns, graphics, and colors to enhance children's purchasing intention.

1.2.2. Current Research Status Abroad

The research on fun packaging design in foreign countries is gradually increasing, and more and more enterprises are paying attention to the market opportunities brought by fun packaging design. Therefore, the researchers of this article have organized the research abroad. In the field of food packaging design, Paula Catarnino Castelo mentioned in her article "The impact of a fun packaging on children's sensory evaluation of a healthy product" that children's choices of food are influenced by packaging design. Children may be attracted by packaging design features such as "interactivity", "gameplay", and a general distance from regular food products, which they believe are different from adult products. Similarly, Corinna Hawkes mentioned in her article 'Food packaging: the medium is the message' that interesting packaging designs and shapes can be used to attract children, and the visual presentation effect in packaging design has been elevated to a high level. Her research mentioned that over 70% of children's food packaging uses cartoon visual effects. But Charlene Elliott argues in her article 'Big Food and gamified products: promotion, packaging, and the promise of fun' that the 'joy' of these packaged foods is not just conveyed through the cartoon characters and unique shapes on the container. The joy of packaging lies in emphasizing the fun experience of consumer products, "which shares common ground with Paula Cartageno Castro's argument.

1.3. Research Content and Methods

1.3.1. Research Content

This article takes the application research of fun design in children's product packaging design as the theme, elaborates on its research background, clarifies the theme content and definition, and summarizes the research status related to this topic at home and abroad. The application of fun design in children's product packaging design is analyzed, and the important role of fun concepts and elements in children's food packaging design is analyzed. From a design perspective, explore the different forms of expression of fun design in children's product packaging design, such as graphics, colors, and shapes, analyze the fun effects presented by different forms of expression, and analyze the advantages and disadvantages of existing children's product packaging on the market. And based on the research results, interesting design will be applied to the packaging design of "Aomiao" children's socks through the presentation of graphics, colors, forms, and other aspects.

1.3.2. Research Methods

This project mainly adopts a research method that combines theory and case analysis, and the specific methods are as follows:

1) Literature research method
Collect literature related to this topic from academic electronic literature databases such as CNKI, Wanfang, and Longyuan, Sort and summarize different literature studies.

2) Case analysis method
Collect excellent cases of children's product packaging design both domestically and internationally, organize and compare their different design forms, and analyze the different manifestations and characteristics of interesting design.

3) Field research method
Conduct on-site visits to multiple large supermarkets, observe the packaging designs of popular children's products on the market, record the behavioral feedback of different consumers on different types of children's product packaging, and organize and summarize them.

2. Overview of Fun Design and Children's Product Packaging Design

2.1. Overview of Fun Design

2.1.1. The Meaning of Fun Design

Fun design is an innovative design concept aimed at bringing joy, joy, and positive emotional experiences to users by incorporating interesting and creative elements into the design. This design method emphasizes entertainment, interactivity, and fun, enriching the experience and enhancing the emotional connection between the product and people. Satisfy people's entertainment and enjoyment needs while achieving the basic practical value of the design, while enhancing the attractiveness of the product or experience.

Fun design can include many elements, such as vibrant colors, a sense of humor, gameplay, interactivity, unexpected functions or features, etc. It emphasizes the process of information interaction with users, using different design techniques to enrich the experience of receiving information, and is more likely to establish deep emotional connections. This design method plays an important role in today's packaging design, not only adding competitive advantages to products and brands, but also creating a more enjoyable and interesting experience for users. Fun design represents a design method centered on fun and creativity, which can improve user engagement and satisfaction, and achieve exceptional results.

2.1.2. Advantages of Fun Design

Fun design has significant advantages compared to other design concepts. Firstly, visually, it can stand out from a group of severely homogenized products in the market by utilizing interesting and creative elements, such as vivid and interesting cartoon graphics, bright colors, and various forms of packaging, quickly attracting consumers' attention and making products stand out in the vast competitive market. Secondly, in terms of brand building, fun design helps to establish a brand image. Fun design itself has characteristics such as ease, cuteness, and mischief, which can highlight the brand tone of the matching brand, deepen the impression of consumers, and achieve a certain degree of promotional effect. In addition, fun design also provides opportunities to increase interactivity and entertainment. Packaging can be designed in highly interactive forms, such as unfolded packaging, puzzle pieces, coloring games, etc. These elements can provide additional entertainment value and enhance the attractiveness of the product. In addition, the existence of interesting design can open up more possibilities. Design is not just about "being more stable", but also pursuing bold innovation. Interesting
design can provide more design ideas and create more possibilities while meeting needs.

2.2. Overview of Packaging Design for Children's Products

2.2.1. Characteristics of Packaging Design for Children's Products

According to the physiological and psychological differences between children and adults in this special age group, the packaging design of children's products has a series of characteristics. Firstly, in terms of product safety, it is necessary to consider the harmlessness of packaging materials, avoid using small parts with suffocation hazards, and pay attention to selecting packaging shapes that are easy to open and place to avoid potential hazards to children. Secondly, children are very sensitive to their senses. The packaging of children's products is more abstract and exaggerated in the use of images and colors, usually using bright colors instead of monotonous and dark colors to gain children's favor and attract their attention; Children often use familiar cute cartoon characters, animals, or fun patterns on images to establish emotional connections. In terms of font design and layout of packaging, children usually do not have strong reading abilities, and the text content is more concise, the text information is more enlarged and prominent, making it easy to recognize and understand. The packaging of children's products has certain particularity, and in the process of design practice, it is necessary to pay attention to these characteristics and plan a reasonable design plan.

2.2.2. Current Situation of Packaging Design for Children's Products

In the early stages of China's development, the industry faced a series of difficulties such as a shortage of funds and outdated technology. The product categories were scarce, and the concept of product packaging was also relatively outdated. With the prosperity of the economy and the development of technology, the categories of children's products are becoming increasingly diverse, and the diversity of children's product packaging has greatly increased. However, the quality of packaging design is uneven, and a large number of packaging of similar products have homogenization problems, lack of recognition, and lack of novelty. The graphic design on the packaging is also sloppy and rough, such as directly applying popular cartoon characters while neglecting image quality and aesthetics, and neglecting font design in layout. There is a lack of logic in color design and unreasonable matching, all of which completely ignore the consumer psychology and aesthetic needs of users as children of this special age group. This cannot move children's hearts, nor can it stimulate their purchasing desire. With the rapid development of the country and the increasing competitive pressure in the children's product market, more and more businesses are paying attention to the importance of product packaging design and increasing investment in product packaging. The quality and aesthetics of packaging have greatly improved. On this basis, consumers have higher requirements for the packaging design of children's products. Some children's products have begun to add interesting designs to the packaging to attract consumers' attention, and more and more interesting children's product packaging is appearing in the market.

2.3. The Significance of Fun Design in Children's Product Packaging Design

2.3.1. Enriching Children's Aesthetic Taste

For children's consumer groups, the products they choose have a strong correlation with themselves, as they carefully screen different packaging during the process of selecting products, which will enable them to invest more attention in this process. The process of selecting products is not only the process of shopping, but also the transmission of images and information. Compared to adults, children's aesthetic values mostly stem from shallow sensory experiences, and their appreciation ability is based on perceptual knowledge. Children also experience artistic appreciation every time they come into contact with packaging. Children have a strong curiosity and a more sensitive and intense perception of images and colors than adults. Interesting design can stimulate children's imagination and graphic perception in the process of experiencing packaging images, experiencing different forms and individual differences of beauty, recognizing the novel and infinite possibilities of graphics and colors, expanding their horizons, forming their own cognition and judgment of beauty, and perceiving social and cultural aspects in this process, Enrich one's aesthetic taste.

2.3.2. Increase the Competitiveness of Children's Products

The application of fun design in children's product packaging design can significantly increase the competitiveness of the product, and parents are more inclined to choose products that interest their children. Compared to other packaging, fun design can quickly attract children's attention by using interesting and creative elements, such as vivid cartoon characters, bright colors, and fun packaging shapes, enhance children's liking for it, and greatly increase the likelihood of purchasing the product. Increase the sales volume of the product. At the same time, the fun design of packaging can enhance consumers' recognition of its brand professionalism. Packaging is an important medium for conveying product information. Children's products have the characteristics of being younger, and fun design meets the aesthetic and needs of children. It also represents a more professional perspective and stronger brand strength, which can increase consumers' trust and loyalty to their brand. Secondly, more interesting packaging designs represent higher added value in packaging. Interesting packaging can increase the aesthetic value and practical value of products, such as fun designs that can puzzle and color, which can meet the increasing needs of consumers today. In summary, fun design has multiple unique advantages in children's product packaging design, helping to attract more consumers, improve sales performance, and increase product competitiveness.

3. The Manifestation of Fun Design in Children's Product Packaging Design

3.1. The Fun of Graphics

The graphics on children's product packaging not only enhance the decorative effect of the packaging, but also serve as a visual language that can convey product attribute information through the expression of patterns, which is an important part of packaging design. At the same time, graphic design has higher flexibility compared to other design
elements, relatively low design costs, and greater room for development. When designing children's product packaging, brand elements and image can be personified into cartoon characters or animal forms, stimulating children's imagination, narrowing their psychological distance with them, making them feel interesting, and thus generating strong attraction for children. For example, AICOKEN Aierjian™ Graphics in Children's Clothing Packaging Design Inspired by 'stay curious', this cartoon image takes the shape of a small stool commonly used by children as the foundation, selects the letter A of AICOKEN as the prototype, and uses the blank part in the middle of A as the mouth, plus a pair of cute eyes to create a vibrant outline of A building. It symbolizes children standing on tiptoe, growing and exploring, and full of curiosity. The overall pattern looks friendly, bold, brave, and full of vitality, reflecting the fun of packaging design nature.

3.2. The Fun of Colors

Colors have a high degree of emotional and symbolic correlation characteristics. The colors on the packaging can bring different emotional experiences to people. At this special age stage of children, the color of objects has a strong visual impact, and thinking associates color with emotions. Therefore, children's preferences and perceptions of objects are often influenced by color. For the packaging of children's products, bright and vibrant colors can attract children's attention more than low saturation colors. Bold and interesting color combinations can attract children's consumers' attention more, and compared to ordinary and relatively single colors, the use of special colors and high contrast color combinations on product packaging can make children feel refreshed and fully stimulate their curiosity and purchasing interest. For example, the packaging design of the Katicale children's watercolor pen set uses bright and eye-catching colors such as fluorescent yellow and fluorescent green to boldly contrast colors, presenting a fresh and interesting color effect, which is very lively and vivid, making the packaging unique and interesting. It highlights the rich variety of product colors and good color expression ability. While presenting good visual effects, it emphasizes the high-quality, interesting, and trendy attributes of the product, increasing its competitiveness.

3.3. The Fun of Styling

Styling can provide consumers with a more intuitive visual experience. In the past, children's products were often packaged in ordinary square boxes with a relatively simple shape. With the development of the market, there are more and more interesting designs in the packaging of children's products. For example, packaging designs with interactivity can achieve interesting interactions, such as designing toys that can be interactive, such as puzzles, movable parts, three-dimensional patterns, etc. This interactivity not only allows children to enjoy the fun of opening the packaging, but also provides them with opportunities to interact with the product, increasing the participation and fun of the product. In addition, functional packaging is also a way to expand fun design. Packaging can be designed as reusable containers for storing toys or other items, which not only provides practicality but also increases the value of packaging. For example, the packaging of children's sheep milk powder designed by the Bolan brand uses cotton paper on the basis of a regular drawer structure and presents all the information through an embossing process. It simulates the feeling of wool with concavity and concavity, text, and patterns, turning the drawer cover into wool, and the drawer itself into a sheep face and body. The handle of the drawer is the "dull hair" of the lamb, and the edge of the envelope is molded out of the sheep's ears, making the box a square lamb. These designs are not only interesting, but also provide entertainment and educational value. In children's product packaging design, the expansion of fun design is a field with great potential, worthy of further exploration and development by brands and designers.

4. Fun Children's Product Packaging Design Practice - Taking Aomiao Children's Socks as an Example

4.1. Brand Image Design

Based on theoretical research, this design practice selected children's socks as the product packaging design. Socks are
one of the indispensable clothing categories. Due to the characteristics of young age groups, children's socks are often more suitable for children's preferences in terms of materials, styles, patterns, etc. Therefore, brand positioning often emphasizes cute, lively, and interesting characteristics. In terms of brand setting, the author names the brand "own" and translates it into "Aomiao" in Chinese. In English, 'own' means 'ours' and has collective, family, and warm associative properties. Its letter form also resembles a cute cat's squinting and smiling expression, giving people a fun and cute overall impression. In the design of the brand logo, the shape of the three letters 'own' was extracted and integrated with the shape of the cat's ear. While highlighting the brand name, cat elements were added to make it more rounded and cuter. The fusion of logo letters and cute cat expressions makes people feel interesting. In the design of the logo color, a high saturation ruby was chosen, which is more eye-catching visually and gives people a lively and lively feeling.

Figure 4. Own children's sock logo design

4.2. Graphic Design

The graphic design of this packaging revolves around the transformation and restructuring of the brand logo, highlighting the specific intention of cats. Choosing the graphic element of cat footprints from the graphic elements of cats not only presents a cute and witty visual effect, but also reflects the association of "footprints" and "socks" in the content expression of the graphics, emphasizing the product content. By using irregular flat cat paw print elements on the screen, the lively and mischievous gait of children wearing children's socks is reflected, adding a sense of randomness and fun to the screen. In addition to the changes in paw print plate style, the size of the pattern is also flexible. Large children's socks are packaged with large paw print patterns, while small children's socks use small paw print patterns. By comparing the size of the patterns, it not only increases the recognizability of different product styles, but also triggers children's thinking and imagination about size, increasing fun. In the design of the pattern background, cloud and wave point elements are used to depict the scene of the sky, rendering an innocent feeling and adding decoration while maintaining the coordination of the image, avoiding too noisy and dominating the military.

4.3. Color Design

Among all the factors that make up product packaging, the impression of color is the longest in people's visual memory. Colors have a pre-emptive nature, and people's first impression of a product also comes from the color of the packaging. Compared to adults, children have a stronger perception of color, so children's products are often packaged in bright colors. In the packaging design of Aomiao children's socks, the original color design was used, and the main color selection was chosen, which is popular among children and has a high saturation of ruby red, to increase the brightness of the packaging and make it more eye-catching. Emotionally, children love the extension and association brought by red. In the eyes of children, red is lively, brave, representing bravery, strength, and justice. In the principle of color matching, the principle of complementarity can produce a strong contrast effect. The complementary color of red is blue, so a large area of sky blue is used as a matching color on the packaging to enhance the visual nerve stimulation of the packaging color, making it refreshing. In addition, using white as the background and embellishing with yellow dots enhances the breathability of the image, avoiding visual fatigue caused by too strong color contrast.

4.4. Styling Design

Figure 5. Own children's socks fun packaging design practice exhibition

In the fun design of packaging, novel and unique structural shapes are very important. They are the basic manifestation of fun design and an important way of sensory experience. Interesting packaging requires a unique and personalized form that can meet the curious psychological needs of children, while also reflecting the characteristics and attributes of the product itself. In the packaging design of Aomiao Children's Socks, the author boldly used multilateral shaped boxes such as triangles, parallelograms, and hexagons. Simple geometric shapes can stimulate children's understanding of spatial geometry. Two triangular shaped boxes can be pieced together to form a horizontal quadrilateral, and the puzzle module like a jigsaw puzzle
increases the interactivity and puzzle of the packaging. Different sizes, shapes, and patterns are also designed in ordinary square boxes, which can be pieced together like a map to create different styles, increase children's interest, enrich the freshness and fun experience brought by different shapes, and conform to the product's tone.

5. Epilogue

The domestic children's product market is rapidly developing, and the variety of children's products is becoming increasingly diverse. Children can choose from a wider range, and it is difficult to widen the gap in product quality between products of the same category. The severely homogenized children's product market has formed a certain degree of aesthetic fatigue for consumers. How to stimulate and guide consumers to pay attention to products, and increase children's consumer groups to have a stronger interest and purchase impulse in their own company's products among numerous similar products, has become an urgent problem to be solved. Fun design is just a good solution to this dilemma.

Fun design not only allows children to experience their aesthetic needs of children in China. Fun design both domestically and internationally, learn from and draw on excellent foreign cases, and design children's fun design both domestically and internationally, learn from and draw on excellent foreign cases, and design children's product packaging that is full of fun, practical, and meets the aesthetic needs of children in China.

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References