



Research on Packaging Design Based on Value Theory of Cognitive Psychology

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Abstract. To apply the value theory of cognitive psychology in packaging design to find strategies for improving the identifiable of packaging design and the effectiveness of user decode, based on the reflection of the phenomenon that packaging design tends to be homogenized under the fast-paced consumption mode. This paper tries to apply the theory of customer perceived value to sort out the coding dimension of consumer perceived value. At the same time, the basic paradigm of value encoding and decoding is constructed by combining the value decoding characteristics of consumers in their purchasing behavior under cognitive psychology, and the packaging design method in line with consumer cognitive decoding is explored. According to the paradigm study, it is found that the more in line with the cognitive basis of the public, the higher the decoding efficiency of consumers, and the more it can promote the value transmission of the brand. Rational use of the characteristics of consumer cognitive psychology can promote the value construction of packaging design, which will gain advantages in the establishment of consumer's cognition of product and brand value.

Keywords: Cognitive Psychology · Value Theory · Packaging Design

1 Introduction

Rational application of the characteristics of consumer cognitive psychology can promote the value building of packaging design, which is helpful to gain advantages in the establishment of consumer cognition of product and brand value. Around this problem, the improvement of identifiable and uniqueness of packaging design drives designers to rethink the intrinsic value of packaging design. As early as 1954, Drucker put forward in *The Practice of Management* that what customers buy and consume is not product, but value [1]. From this point of view, it is necessary that packaging designers, as coders who transform brand value into visual symbols, should consider the cognitive effects of consumers when they contact packaging. Customer perceived value, as a trade-off between perceived gain and perceived loss, focuses on the customer's subjective perception of the value of the product or service provided by the enterprise, which is different from the objective value of the product or service. If designers assume the responsibility of value coding, then consumers' perception of package design is an outward representation of the effectiveness of coding. In this regard, the effectiveness of brand value transmission in packaging design can be improved by considering the value coding dimension from the designer's perspective and the decoding effect of consumer cognitive process.

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2 Dimension of Value Coding in Packaging Design

The value-focused thinking of packaging design is an objective thinking way of analyzing brand and consumer demand from the underlying facet. Cognitive psychology emphasizes the value encoding of information applied to design, which is reflected in the various processing processes in which designers transform brand ideas, product information and atmosphere into visual symbols to be expressed in packaging design [2]. The customer perceived value theory proposed by Zeithaml, V.A. further guides the consumer's value cognition to the consumer's own purchase decision, emphasizes the position of the consumer as the main body, and extends to how the designer reflects the consumer's value demand into the nature of packaging design. As for the designer's coding process after brand value construction, this paper analyzes the evaluation index system of packaging design from three dimensions: economic value, physical value and psychological value. [3].

2.1 Economic Value

Economic value actually refers to the cognitive cost that consumers invest in the construction of brand value. From the perspective of consumer cognitive psychology, more specific indicators can be used for evaluation and investigation in the designer's value coding, including the information cost, time cost, energy cost and physical cost invested in consumer cognition. Robert F. Lauterborn put forward "4C marketing" [4], a marketing strategy of repose with consumers as the center. This theory emphasizes the dominant position of consumers and tries to reduce the cognitive cost of consumers. Therefore, packaging designers, when making value coding, should fully take into account the cognitive costs that consumers invest in the information presented in product packaging when making purchase decisions.

2.2 Physical Value

Physical value is the practical application function value obtained by consumers from packaging design, and the inspection index can be regarded as the actual value brought by packaging function. This value perspective leads designers to think about basic function of packaging realized by value coding, and to further consider the functional value of rich packaging. Under the condition of not increasing the cognitive difficulty of consumers, the difference between the value provided by packaging and the cognitive cost paid by consumers in obtaining the value can be increased. [5].

2.3 Psychological Value

Psychological value refers to the psychological satisfaction obtained by consumers after using packaging. This kind of psychological satisfaction is endowed with certain cultural characteristics of the times. The evaluation angle can be divided into: the service object of packaging design - the value brought by the brand to consumers; the emotional value contained in packaging design, such as environmental characteristics and cultural

resonance, etc. In other words, the value coding with consumers as the main body needs to accurately consider the cognitive style and emotional system of the target consumers, find the same frequency resonance of value matching between the packaging designer and the target consumers, and achieve the consistent experience of cognition and emotion. Only then can the designer satisfy the psychological value of consumers in the packaging design.

3 Characteristics of Consumer Value Decoding in Packaging Design

In view of the fact that consumers' cognition of the information presented in the packaging design is the process of deciphering the designer's value code when they make a purchase, the value decoding feature is a complex feature presented by consumers in the cognitive process. The psychological characteristics of consumers in value decoding can be obtained by sorting out the decoding process, decoding cognition and decoding style of memory in cognitive psychology.

3.1 The Systematic of the Decoding Process

The consumer's decoding process is a neurobiologically consequence of previous experience, and the decoding process must be caused by some mechanism that occurs over time. In cognitive psychology, Edward E. Smith believes that "memory is interconnected", and consumers need to form connections between different mental representations in the decoding process, such as connecting visual symbols in packaging design with specific information known to them in series. The information extraction of cognitive patterns follows the basic principles of binding and cue-dependence, and the decoding requires pattern perfection, that is, the extraction of cued representations and the reactivation of relevant representations. In the information processing model, Rummelhart proposed that the connection theory of cognitive process theory also regarded the decoding process of individuals as the overall activity of a cognitive network. The characteristic representation reflected in the cognitive process of consumers is the systematic characteristic.

3.2 Differences in Decoding Cognition

It can be said that when building the decoding system, consumers have different value bases due to different factors such as gender, age, geographical environment and cultural atmosphere. Even the decoding motives and emotions caused by different scenarios of the same consumer's purchase decision are different, resulting in different cognition of value decoding. The cognitive characteristics of decoding for different consumers urge value coders to carry out comprehensive value identification and correct grasp of target consumers.

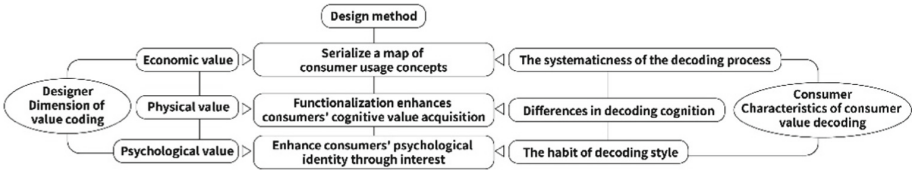


Fig. 1. The paradigm framework of value coding and decoding in cognitive psychology (by the author)

3.3 The Habit of Decoding Style

In terms of Jean Piaget’s theory of knowledge construction, the decoding style of consumers is not cognitively separated from the existing knowledge and experience, but constructed again on the basis of the original cognition. In different stages of purchasing behavior, consumers tend to actively construct the value of decoding style, that is, recombine and integrate the decoding structure of new style and old style, and finally form a new style appearance. From the perspective of consumers decoding the value of packaging design at a specific time, the decoding style will exert the dynamic influence of new style on the basis of the old style kept, so as to show the potential and habitual characteristics of decoding style.

4 Methods to Promote Consumers’ Effective Decoding in Packaging Design

Packaging design, as the encoding carrier of brand value, can be considered from the following aspects in improving the effectiveness of decoding consumer value [6]: First, reducing the cognitive cost of consumers in the economic value perceived by consumers. Second, enhancing consume access to tangible or intangible use experience in physical value. Third, strengthening the psychological identity of consume in the psychological value. Finally, the synchronous cognition and value resonance among brands, designers and consumers will be formed, as shown in Fig. 1.

4.1 Serialize a Map of Consumer Usage Concepts

In Gestalt psychology, visual perception follows the view of “Gestalt laws”, that is, consumers engage in active cognition when facing packaging design [7]. Due to the systematic characteristics of consumer cognitive style, consumers bind and compare new cognitive objects with stored cognitive maps in series. The decoding process from whole to part and back to whole emphasizes the importance of serial value coding. Consumers’ cognitive decoding constantly strengthens the cognitive map of packaging, emphasizing that packaging designers must be good at observing and discovering the commonality of forms or images among things and make use of it. In the packaging design of HEMA summer toys, inflatable toys with difference shapes applies the same exposure principle in product presentation. The swimming pool with extremely summer attributes is selected as the atmosphere for use, and it is continuously repeated and continued to be used, which



Fig. 2. Packaging design of “HEMA” summer toy (sourcing network)

constantly strengthens the cognitive map of product packaging during the cognitive decoding of consumers, as shown in Fig. 2. In the process of consumer cognition, the metaphor created by the concept map constructed in series is the most obvious, and the obstacles to cognitive decoding will be greatly reduced.

4.2 Functional Enhances Consumers’ Cognitive Value Acquisition

The core of cognitive value refers to the dynamic trade-off between consumers’ cognitive gain and cognitive loss. Cognitive gain is the value added that consumers feel when they use packaging after decoding value, while cognitive failure is the total cost that consumers pay in cognitive decoding, including economic cost, time cost, emotional cost and so on. In terms of the physical value of consumers’ cognitive psychology, the improvement of consumers’ cognitive gain can enhance their profit perception without increasing their cognitive loss. Consumers can get a value judgment that is different from other brands. In the food packaging design of olive oil, caramel is used to make the packaging shell. After the olive oil is used, the edible packaging material dissolves in water and becomes a delicious beverage, which gives the package value attributes besides basic functions, highlights the environment-friendly characteristics of the packaging design, and virtually enables consumers to obtain value beyond their expectations, as shown in Fig. 3.

4.3 Enhance Consumers’ Psychological Identity Through Interest

Since the degree of consumer’s psychological identity affects consumers’ purchase intention, the positive coding based on the cognitive style of the target group of the brand in the early stage can play a positive role in the decoding of consumer value [8]. Therefore, in the coding method of packaging design value, the expression of interest and the full and reasonable use of graphic and text symbols can enhance the emotional resonance between consumers and the brand, and also increase the psychological identity



Fig. 3. Olive oil packaging design of “Tomorrow Machine” (sourcing network)



Fig. 4. Package design of “NONFUWANGTIAN” chili sauce (sourcing network)

of consumers. There is a need for a high degree of integration of product packaging and branding. The packaging design of NONGFUWANGTIAN chili paste is based on the principle of fit packaging. By improving the shape and figure of the bottle cap to fit, the product and raw materials are skillfully combined, as shown in Fig. 4. At the same time, the use of interesting design techniques will transfer consumer psychology into packaging design. This effect is then projected onto the brand, strengthening the psychological identity of consumers.

5 Conclusion

The value theory in cognitive psychology is a comprehensive psychological system that evaluates value from consumers. From the perspective of consumer as the main body, the packaging design method obtained by reflection in this paper is the concrete display of the philosophy view of “human”. In addition, this study involves the integrated thinking of value relations between the brand building value, the designer of valuable coding, and the subject of value decoding -- consumers. On the one hand, in order to obtain positive consumer satisfaction evaluation from the target consumer group, the brand should encourage the packaging designer to shift from the pursuit of outer design expression to the innovative thinking of deep brand value output. On the other hand, based on the change of value orientation in the macro environment, it is necessary to timely improve the accuracy of packaging design value coding, lead the market trend and constantly innovate, in order to stand out in the homogeneous packaging performance.

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