

Research on online fashion design based on consumer vision

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Abstract. In the era of experience economy, consumers no longer pursue simple material life, but pursue higher levels of satisfaction. They begin to pay more attention to sensory and spiritual enjoyment, and the requirements for products are not only common basic functions. Major clothing enterprises and brands have started the service of personalized clothing customization, and the market for personalized clothing customization has become competitive. In this context, how to create a personalized clothing customization platform that can bring good user experience to consumers from the perspective of consumers is of great significance to those clothing enterprises that cannot play an advantage in products and those who want to gain long-term competitive advantage on the basis of having good products. Based on the needs of consumers, through the core content of interactive design, and through a detailed survey of the clothing personalized customization platform, this paper draws the feasibility and advantages of interactive design applied to clothing personalized customization.

Key words: Experience economy; Interaction design; Clothing customization.

1. Introduction

Because online clothing itself is a product of visual experience, visual factors are more important than clothing comfort, warmth, ventilation and other factors. Therefore, the study of consumers' online visual attention mechanism and the resulting clothing emotional experience is an important theoretical basis for online clothing design and online clothing marketing strategy[1]. Consumers visually show their interest in a certain clothing design element, including the visual stimulation of clothing factors to consumers from the bottom up. When consumers quickly browse many competing products, the stimulating elements of clothing will attract consumers' visual attention unconsciously, and then the visual system will allocate more visual attention resources to carry out continuous visual processing on the area of interest[2-4]. With the growth of time, consumers' top-down and conscious visual attention processing began to occupy a dominant position. At this time, consumers have awareness of the positive or negative emotional experience of the processing object and whether the clothing object is consistent with their own expectations in the process of conscious processing[5].

Many achievements have been made in the research of consumer behavior, emotional experience and cognition of online products. Attention involves triggering behavior and is closely related to human visual recognition, planning and motion control. The research found that consumers perceive visual and functional visual stimuli in online stores, and then decompose the stimuli into graphic

and literal brand information, packaging, etc. These design stimuli help improve the brand image of products and consumers' purchase intention. Hou studied the influence of color information on human cognition and emotion, and described the relationship between color and cognition and emotion[6]. In the advertising industry, products are usually displayed to consumers through scene clues, because such images will have a greater impact on persuasiveness through psychological simulation[7].

2. Personalized customization and interactive design of clothing

2.1 Overview of personalized clothing customization

Clothing personalized customization refers to the process of tailoring and one-piece production according to the individual needs and preferences of consumers. The biggest feature of personalized clothing customization is that it can customize the system version for every consumer. The "personalization" of personalized clothing customization is mainly reflected in the customization design and service experience. The designer and the consumer constantly communicate to complete the unique customized product by understanding the consumer's personal preferences, personal style, daily habits, and other key points of the wearing scene, and adding personalized parts to the final clothing design products, such as color, fabric, collar, sleeve and other style details.

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Clothing personalized customization is a customer-oriented clothing production model driven by user demand. Customers are the core of production and operation activities. It is different from traditional clothing enterprises that produce according to their own market prediction, and then sell to consumers[8]. Although the clothing products produced by the unified clothing enterprises have a variety of styles and colors, but they cannot meet the needs of each individual consumer. Compared with the traditional clothing production, the biggest advantage of clothing personalized customization is: from the perspective of enterprises, clothing personalized customization starts with the needs of consumers, accurately aligns, strengthens effective supply, improves the flexibility of production, and greatly reduces the problem of inventory unsalable caused by the unpredictability of the consumer market and oversupply of clothing production enterprises; From the perspective of consumers, clothing personalized customization can not only make customized products more suitable for consumer needs, but also increase consumer satisfaction with clothing by increasing consumer participation[9].

2.2 Relevant theories of interaction design

Interaction design is to explore the user's needs, analyze the user's behavior characteristics in the process of communication between a logo and an artifact, study the interaction methods used by the artifact to achieve the user's logo, and strengthen and expand this interaction behavior, so that the artifact can help users achieve the interface more effectively and quickly, and make users feel happy in the interaction with the artifact. This research process is interaction design. "Artifacts" refer to all man-made objects, such as computers, software, mobile products, artificial environments, service devices and the organizational structure of systems[10]. In fact, there is "interaction" everywhere in life, and the "interaction behavior" here refers to all information exchange activities between human and nature, which can be conscious or unconscious, but only conscious interaction behavior is the research object of interaction design discipline. In this paper, the interaction behavior refers to the interaction between users and artifacts[11].

3. Online clothing design and consumer relationship verification

3.1 Interaction between clothing design factors and consumers

When online clothing consumers browse and display products, the process of visual attention transferring from one location to another is called explicit attention[12]. The visual attention system collects the regions of interest that the human brain pays attention to through global visual scanning. The different types, patterns, colors and other elements of clothing and their different combinations will make consumers produce corresponding cognitive associations. These cognitive associations are the process of continuous convergence of consumer expectations, which will eventually lead to

consumer purchase decisions as the expectations go from vague to clear. The data collected in this experiment are mainly visual attention indicators and emotional experience indicators[13]. These physiological indicators provide objective and quantitative data for the study of visual attention and emotional experience. In the process of fast browsing clothing display products, online clothing consumers' visual attention is transferred from one position to another, which is called explicit attention. It can be captured by eye trackers and expressed in a visual way with objective quantitative data. Then it can be analyzed by SPSS and other software[14].

3.2 The role of patterns in consumer clothing selection

With the development of economy and the improvement of living standards, people have higher requirements for the personalized design of clothing styles, fabrics, colors and patterns. As one of the important language symbols of clothing, patterns play an important role in clothing, and are also one of the most important elements that can reflect the personal preferences of consumers. Patterns can give clothing distinctive style characteristics and bring a variety of possibilities for clothing[15]. As shown in Figure 1, there are two clothes of the same style in pure color and pattern[16]. The white coat on the left gives a simple, capable and unrestrained female image, while the blue printed coat on the right shows a relaxed, relaxed and soft style. Through the comparison of two pieces of clothing, it is found that under the premise of certain style, pattern is one of the best choices to shape the style and tonality of clothing[17].



Figure 1 Comparison between pure color and patterned clothing (Image source: Internet)

The shape and color of the clothing pattern determine the visual perception of the pattern, and the color in the clothing pattern has a greater visual impact on the perspective of consumers because it is superior to the impact of the shape. Color is the first impression of the viewer when viewing the pattern[18]. The harmony and unity of the color of the clothing pattern has a direct impact on the overall clothing. Especially on the clothing with large areas of patterns, the color of the pattern largely determines the color of the clothing, while on the clothing with small areas of patterns, the pattern is more used as a color block to assist the overall color of the clothing. The color of clothing pattern affects the overall color of clothing, and is also the way to present the artistic effect

of clothing. Therefore, it is important to master the color rules and presentation methods of clothing patterns. Because of the subordinate attribute of the pattern relative to the clothing theme, the freedom of its color processing will be limited to a certain extent. The clothing pattern is limited by the clothing body design and the specific form. The patterns in the clothing mostly express the content that the clothing wants to express[19]. The clothing pattern is the concrete way to express the clothing inspiration elements. Because of its subordinate attribute, clothing patterns are mostly based on the color of clothing, which is extended and diffused on the premise of maintaining the tone. Therefore, the color design of clothing patterns has its unique limitations. The color design of clothing patterns is carried out around the theme of clothing and the overall color of clothing. The relationship between the color of the clothing pattern and the clothing is the key content to be considered in the pattern design. Therefore, the personalized customization platform of the clothing pattern should not only provide the customization options of different pattern styles according to the different preferences of consumers, but also the different color performance under the same pattern is a crucial factor for the personalized customization platform of the clothing pattern to be more close to the needs of consumers.

4. Personalized customization of clothing patterns from the perspective of consumers

4.1 Interactive clothing pattern personalized customization

The clothing personalized customization platform studied in this paper is completely different from the traditional large-scale personalized customization. The research focus of the traditional large-scale personalized customization of clothing is mainly to solve the contradiction between the clothing production efficiency and the personalized demand of consumers, aiming at utilizing the existing advanced technologies and integrating the resources and chains between the production supply end, the customer demand information end and the clothing customization enterprises, Realize the production of differentiated products with high efficiency and low cost. Moreover, the clothing products of mass customization emphasize the product itself more. For example, the mass customization of suits emphasizes the inherent attributes of suits, such as comfort, fit and beauty. The personalized customization of clothing patterns studied in this paper pays more attention to the emotional experience brought by personalized customization of clothing to consumers and the uniqueness of customized products[20]. And highly personalized, focusing on the interaction form and customization experience of consumers and customization platform. Therefore, the design content of this article mainly includes the customization process design of personalized customization platform of clothing patterns and the interaction design of various

customization processes, including the interface interaction design of app, user experience interaction design, and sensory interaction design.

4.2 Pattern design under consumer perspective interaction

Interactive clothing pattern personalized clothing customization is a new type of customization mode based on app, which is developed and constructed according to the previous chapters' theoretical research on interactive design, clothing personalized customization and clothing pattern design and in-depth analysis of existing clothing personalized customization cases. Interactive clothing pattern personalized customization mode allows users to deeply participate in clothing personalized customization, and users can select their favorite styles and fabrics online, Select the pattern elements provided by the online platform or upload your own pattern, and complete the pattern design independently through the interesting "kaleidoscope" pattern customization system, preview online and adjust the application effect of the pattern on the selected clothing style at any time, including the color, pattern size and layout until you are satisfied, and then order online to complete the customization. This new mode of personalized customization of clothing patterns allows customers to meet the needs of personalized clothing customization in the way of deep participation. It not only improves customers' sense of self-worth, but also brings customers a good sense of experience.

5. Conclusion

With the arrival of the era of emotional experience, consumers have higher and higher requirements for personalized needs. Driven by "Internet plus" and emerging design industry, cognitive psychology based on objective quantification and big data technology based on data driving are gradually influencing user experience design industry oriented to consumer needs and cognition such as IT design, industrial design, etc. The design scheme of the personalized customization platform based on the clothing pattern from the perspective of consumers proposed in this paper is feasible, and the pattern elements obtained by the pattern design method of the personalized customization platform of clothing patterns are beautiful, and countless pattern materials can be obtained only through multiple changes of one element, which can greatly meet the needs of consumers and bring great convenience to the personalized customization of clothing.

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