Study On Development Strategy Analysis Of New Bamboo-Slices Products In Wanbei Area

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Abstract. Objective: In order to expand the use of the Bamboo-slice device field, Integrate various bamboo-slice raw materials, the paper digs new product development strategy of Wanbei bamboo-slice seriation. Method: It analyzed the characters of the Bamboo-slice device by position and data analysis, by a series of product development and bamboo-slice negative carbon materials biochemical experiments and materials Studio's shadow mode analysis. Conclusion: By using the method of SWOT, notable designers like estudio test materials, feasibility analysis and other methods for Wanbei bamboo-slice apparatus of original innovation and product development to provide data support, so as to achieve the integrated use of bamboo sticks, Salix Integra, reed series, symbolization, and should realize the material such as the brand field, the results of product development.

1. Introduction
With the disintegration of traditional craft context, people in Wanbei area are also making progress towards an intensive Integration of their mie-device. This paper analyzes the original material of bamboo-slice from field research data and explores new product development strategy based on the estudio test, modular-product deconstruct and SWOT method.

2. Materials

2.1. Estudio experiment testing raw materials
In order to verify the Anhui bamboo raw material negative carbon, the Salix Integra (one of the special given bamboo material) as the experimental object, the negative carbon research Integra. As shown in figure 1, the carbon dioxide content of the Salix Integra material is tested by the static light as the light source. Under the first 1800 seconds of the light, the carbon dioxide index of the Chinese Salix Integra (willow) is decreased more obviously by 170ppm (ppm is mg/m3), and the carbon dioxide index drops by 78ppm in the last 1800 seconds, obviously lower than that of the former. With the enhancement of illumination, the concentration of CO2 in the air of raw willow seeds is decreasing. That is to say, with the lengthening of light time, the Salix Integra (willow) absorbs more carbon dioxide, reduces the concentration of carbon dioxide in the air, and plays a role in purifying the air.
This is in the process of production of low carbon in bamboo raw materials. From the processing point of view, bamboo products can be as much as possible by manual weaving, the procedure is simplified, the production process of zero carbon emissions. Finally, from the recovery of the product of the strip, we should increase the added value of the product as much as possible, and increase the redesign and reuse of the abandoned products so as to avoid the incineration stage. Because the raw material of the strip is from nature, the disposal method of landfill is reasonable and harmless to the products and nature of the abandoned strip products, but the incineration will produce harmful gas and increase carbon emissions. So, you can appeal to the reasonable classification of bamboo waste products, let it in the right way to return to nature.

2.2. SWOT analysis of bamboo products at North Anhui

In 1980s, American professor H. Weihric proposed the method of using four indexes of strength, weakness, opportunity and threats (SWOT) to analyze the product strategy. Then, it was called by the method of situation analysis [1]. The situation analysis of the bamboo strip products in Wanbei is different from the existing digital products and home products in the market. It is a special transitional product between the traditional handicraft and the modern design products. Through SWOT analysis plus product environmental analysis and overall analysis, we can find strategic support for the improvement of inherent products and the development and design of new products. As shown in table 1 below:
3. Methods:

3.1. Position: the orientation exploits of new bamboo products

Through field survey, the questionnaire showed that people were influenced by cultural background, living environment and age differences, and there were certain differences in the perception, experience, satisfaction and desire of purchasing. Among them, the young people born after 80 were vague about the technology of the bamboo strip, and the 40 year old middle-aged people were more objective. The old people were more conservative and stayed in the memory of the past. The analysis of the experience of the use of the bamboo strip products (see figure 2) shows that the use rate of older people is higher than the middle age in the bamboo producing area or the non bamboo producing area. The use of experience of middle-aged people is higher than that of young people. The analysis of the satisfaction of different age classes of the bamboo strips (see figure 3) shows that young people are satisfied with the color of the strip, but they are not satisfied with the types and forms of the strips. The elderly are generally satisfied with the fine workmanship of the strip, but the satisfaction of the color of the strip is only 30%, which requires the different consumer groups. Subdivision makes different

| SWOT analysis | Strength | Weakness |
|---------------|----------|----------|
| **3.1. Position:** the orientation exploits of new bamboo products | 1, low carbonization of hand making and making process | 1, weak economic base |
| | 2, low carbon bamboo raw material planting, harvesting and collection process | 2, the lack of brand awareness in individual areas, lack of popularity |
| | 3, regional cultural resources are excellent | 3, people are backward in creative thinking and consciousness |

| SWOT analysis | 1, transparency and intensification of market competition in the information age | 1, fully develop new interactive platform and strengthen innovation |
|---------------|-------------------------------------------------|-------------------------------------------------|
| **1. Transparency and intensification of market competition in the information age** | 1, transparency and intensification of market competition in the information age | 1, fully develop new interactive platform and strengthen innovation |
| | 2, risk of the development of new functional products | 2, fully develop new interactive platform and strengthen innovation |
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| SWOT analysis | 1, in the era of "post carbon", the market demand of consumers is increasing | 1, we need to tap more latent users and potential users with large market demands |
|---------------|-------------------------------------------------|-------------------------------------------------|
| **1, in the era of "post carbon", the market demand of consumers is increasing** | 1, in the era of "post carbon", the market demand of consumers is increasing | 1, in the era of "post carbon", the market demand of consumers is increasing |
| | 2, potential users and recessive users | 2, the positive development of bamboo products with new features |
| | 3, low cost of technological innovation and technological innovation | 3, we must seize the beauty of human nature and tap the bigger market |

| SWOT analysis | 1, the opportunity to make use of the market demand. Create a new product brand | 1, the opportunity to make use of the market demand. Create a new product brand |
|---------------|-------------------------------------------------|-------------------------------------------------|
| **1, the opportunity to make use of the market demand. Create a new product brand** | 1, the opportunity to make use of the market demand. Create a new product brand | 1, the opportunity to make use of the market demand. Create a new product brand |
| | 2, use technological innovation to develop new functions and brands | 2, use technological innovation to develop new functions and brands |
| | 3, active and fast feedback to market with potential users and recessive users | 3, active and fast feedback to market with potential users and recessive users |
design strategies: to increase the variety and form of products to design the bamboo strips for young consumer groups, and to increase the color of the products of the strip to create the market for the elderly. Furthermore, the impact factor analysis on the purchase of users (see figure 4) shows that environmentally friendly products are the first choice to stimulate users' desire to purchase, accounting for more than 90%, followed by beauty, utility and price factors, accounting for 82%, 60% and 24%, respectively. This shows that the form and function of the strip product are the focus of the design and development of the new strip products. It is of great constructive value to change the appearance and the appearance of the product of the bamboo strip under the premise of satisfying the function.

3.2. Series of product development:
The serial product design is also called product family design. Erens describes the product family as: the product family is a group of products with the same internal interface, which must be a standard interface in various areas of design (functional, technical domain, and physical domain) so that the components of the product can be completely interchangeable [2]. The series design of the products of the bamboo strip in the north of Anhui Province can improve the core competitiveness and cover of the product, and be able to adjust the market flexibly. It is also an easy way to produce the product brand.

In the development of new products in the northern Anhui Province, we can make specific designs through combinatorial series, unit series and complete sets of design methods. For example, the development of the furniture products of the bamboo sticks can be designed to form a series of structures, colors and shapes, such as the tea table, the sofa, the dining stool, etc., and the design of a family of lamps and lanterns, table lights, decorative lights and chandeliers to form a series of production through the design of the family of lamps and lanterns of the bamboo strip goods. The unit can form a modular series of bamboo products. As shown in figure 5, the bamboo weaving sofa is designed by the YII designer Zhou Yurun and Su Su of the Taiwan technical research and development center, which is jointly developed by Zhou Yurun and Su Su. The stool is made of bamboo strips by repeated random compiling of the seat surface and chair legs. The design of a complex production worker is made of the flexible and elastic qualities of bamboo strips. Art, the modular design of the three primary bamboo tube chair legs is convenient for production and production, giving birth to the gradual change from ecology to the humanities, and becoming an example of the organic combination of manual technology and modern semi mechanical production.
The post carbon society is actually a typical trend of thought that runs the concept of green and low carbon in the industrial age. "Design science is a discipline that is constantly developing and changing along with the development of human society. Design is not only the satisfaction of functional level or aesthetic needs, but the promotion of the value of life as a whole "[3]. In addition to embodying the basic connotation of focus, dedication and innovation, the spirit of the times needs to embody the spirit of the times to embody the spirit of the times to create a low carbon product. Product life cycle can be extended through concise design and multi-purpose development of products. In the modern and efficient society, it is necessary for the craftsmen of the northern Anhui Province to strive for excellence and focus, to make the details and aesthetic sense of the product of the bamboo strip to the utmost and to lead the spirit of the "craftsman" of the times.

4. Conclusions

4.1. The result of estudio data analysis
The production and manufacture of bamboo products under the concept of "post carbon" should take account of the periodicity of raw materials, renovation of the technology of bamboo strips, and the origin attribute of bamboo sticks. Ecological manufacturing requires materials to be used to select materials that can be reused, recyclable, degradable and recyclable, so as to avoid environmental pollution after use. It is a low carbon and environmental friendly process from planting, manufacturing and waste recycling, which is consistent with the concept of green and sustainable design. The raw materials of the bamboo strips in the north of Anhui Province are bamboo, willow, rattan, reed and Salix Integra. These materials have not been negatively carbon in the process of planting, collecting, processing, manufacturing and using, and it is not possible to destroy the environmental resources of the earth.

4.2. The result of SWOT analysis
Through field investigation position and SWOT analysis of the above, the northern bamboo new products trying to form the following location:
First of all, it is located in the middle class and the middle and high end crowd. It is the main design strategy of the new Chinese furniture, which is characterized by low carbon and original material such as wood and bamboo. Secondly, changing the situation that traditional bamboo furniture products are out of date and cannot match modern home aesthetics, combine fashion with differentiated product design strategies.

4.3. Series of product development
The development of serialization can be developed from the aspects of human vision, touch, smell, hearing and motion perception in Kansei engineering. The design was originally for human science. American design theory researcher Herbert Simon once said: "we live around and what we use, there are obvious artificial marks, we live in the world is not a natural world, but a human, artificial world." [4]. Of course, the development of a series of strip products should also take into account the needs of modern production and life and the embodiment of the local fashion aesthetics. The design and development of simple and fashionable strips of strips can be carried out from the horizontal living
instruments. The building of the industrial chain of the product will enable customers to have more interest and more choices for the products of bamboo products.

In this study, the negative carbon characteristics of Chinese willow were studied by biochemical experiments and estudio data analysis. It was found that with the prolongation of light time, the material absorbed more carbon dioxide, reduced the concentration of carbon dioxide in the air, and played a role in purifying the air. It is proved that as the typical material of the northern Anhui Province, it can reduce the production process and the zero carbon emission to the environment in the process of low carbon and processing of raw materials, and it is an effective carbon material. At the same time, the analysis of the experience of the use of the bamboo strip, find the positioning of the new product. The SWOT analysis method is used to analyze the advantages, disadvantages, opportunities, threats and pain points of new product development in the product development strategy, and the direction of the new product development is put forward. These studies are of constructive significance to the design and development of new products. Combining with traditional technology, cultural implication and design innovation, the design can be combined with traditional technology, cultural connotation and design innovation, so as to improve the economic value of bamboo and increase the added value of the product. At the same time, this paper studies the low carbon characteristics of bamboo strips in the north of Anhui, studies the value and interest of the original ecological aesthetics, and provides a reference for the modern market research and the development of modern product design for northern Anhui. In order to achieve a win-win situation, many social factors such as culture, economy, technology and aesthetics are needed. Through analyzing the data of estudio experimental technology, we can achieve the emergence of social economic value by designing new product strategy, ecological aesthetics and cultural implication.

Acknowledgments
Funded projects: Ministry of Education, Humanities and Social Sciences Youth Fund Project (project number: 17YJC760075) and College of Humanities and Social Sciences Key Projects in Anhui Province (No. SK2017A0635)

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