# EVALUATION AND ANALYSIS OF BAI NATIONALITY'S WOODCARVING INNOVATIVE FURNITURE DESIGN BASED ON CONSUMER INTENTIONS

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#### **ABSTRACT**

This study takes consumer intentions as the research object, and explores the factors that influence the form of Bai nationality woodcarving furniture. The research divides the consumer groups into three types: young, middle-aged, and old according to age, and conducts quantitative and qualitative research by distributing 200 questionnaires. The research results show that the interviewees generally agree with the artistic charm of traditional culture and are willing to pay for related products. The shape, color, material, texture, structure, and meaning affect consumers' purchasing motivation. The research results can guide the Bai nationality's woodcarving innovation furniture design.

**Keywords:** Consumer Intention, Bai Nationality Woodcarving, Cultural Creativity, Furniture Product Design

#### INTRODUCTION

In recent years, the implementation of China's cultural revitalization policy has allowed traditional culture to be well protected and spread. The resource value of traditional culture has been re-emphasized, and more and more consumers are willing to consume traditional culture. These factors have stimulated the vigorous development of the traditional document creative industry. The traditional woodcarving craftsmanship of the Bai nationality has been well developed under such a policy environment. As a national intangible cultural heritage inheritance project, with its distinctive regional culture, driven by the tourism industry, it has gained more and more people pay attention and love.

Bai nationality wood carving is mainly used in traditional architectural decoration and furniture decoration in Bai nationality area (Chen & Bai, 2020). It is the most famous craftsman in Jianchuan, Dali, Yunnan. Among them, many are trained by Jianchuan National Woodenware Factory and Jianchuan Vocational School. The non-genetic inheritor is a field survey point for understanding woodcarving craftsmen and woodcarving skills. The ancient town of Jianchuan, Jinhua Ancient Town, has completely preserved the traditional wooden architecture of the Ming and Qing Dynasties and the Republic of China. It is a natural museum for studying Bai woodcarving decoration. Chuanshihe Town has also formed a relatively concentrated woodcarving town, attracting many people who come here, and it is a survey point for observing consumers' demand for traditional woodcarving.

Some scholars believe that traditional culture should come out of the museum to be passed on lively, and call for the integration of traditional culture into contemporary life (Yuan, 2016). These studies and practices have actively promoted the current development of traditional culture. Many Under the empowerment of design, the traditional culture of Bai nationality began to be displayed in front of modern people in a new posture, slowly showing the vitality of culture, and the Bai woodcarving culture is rejuvenated by the way of integrating into life. This vitality comes from two aspects: On the one hand, it comes from the theoretical research of scholars. They think about the application and update of woodcarving craftsmanship from the aspects of form innovation and technological innovation. For example, scholar Su Yanwei proposed to use woodcarving in northwestern Yunnan from the ideas and methods of modern design application. The study furniture design case (Su, 2021), their research provides a reference for the application of traditional techniques to modern design. From the perspective of digital technology, scholars propose an application function that allows audiences to participate in artistic creation, allowing audiences to judge and choose products (Su, 2020), which expands the application scope of Bai woodcarving culture and increases consumers' participation in woodcarving product design. The other comes from market practice. The creation of decorative paintings and craft decorations made by craftsmen using Bai woodcarving techniques are highly sought after by consumers. The traditional Bai woodcarving culture has gradually turned into consumable cultural products under market demand. However, the researchers found in their observations that "not all traditional cultural and creative products have been recognized by the market". Therefore, it is particularly important to study "what are the factors that affect consumers' purchasing intentions". The research on this question is helpful to answer how to complete Consumer-recognized product form. Researchers are aware of the influence of Bai woodcarving cultural elements on consumers' purchasing intentions. The research can be used as an empirical basis for guiding the redesign of Bai woodcarving culture. When applied to the furniture design industry, it can avoid the risk of slow sales caused by blind design.

## Research objective

The research will obtain data on consumers' consumption intentions for Bai nationality's traditional woodcarving furniture products, and the data can be used to guide the design of Bai nationality's woodcarving innovative furniture forms.

## Area of research

- 1. The sample used in the study is 203 people, and a questionnaire survey is conducted for each person. Including local Bai residents, new immigrants from other places, designers, homestay operators, and furniture manufacturers. These survey samples are the target groups of product consumption, representing users (demand side) and purchasers (consumer side). The survey the sample basically covers the overall profile of furniture product consumers in a relatively comprehensive manner, which is statistically significant.
- 2. From conceptual studies and literature reviews, the education level, income level, gender, and life experience of the consumer population are drawn. They are all factors that can affect consumption intentions and product forms.
  - 3. Research period: 3 months from July to September 2021.

#### RESEARCH METHODOLOGY

- 1. Research tools mainly use questionnaires. In the design of the questionnaire, brainstorming method and letter inquiry method (Defel method) were adopted. The design of the questionnaire was simple and clear, and the answer was evaluated by the Lillickett scale.
- 2. Conduct field research, use correlation analysis, and conduct systematic and in-depth sensory evaluation and qualitative analysis on the consumption intentions of Bai nationality woodcarving cultural elements applied to furniture product design and the factors that affect consumption and purchase according to the characteristics of consumers.

**Investigation method:** This article is a quantitative study on the influence of consumer intentions on the design of Bai nationality's woodcarving innovative furniture.

Research process: by establishing the research question "what cultural imagination do consumers have about Bai woodcarvings, and how to use this consumption image to design furniture products", then consult literature, research analysis methods and theories, formulate research thinking frameworks, and conduct field research Conduct interviews and questionnaires with the research methods of questionnaire surveys, and apply statistical methods to analyze the factors that affect consumer behavior. Based on the analysis conclusions, the Bai nationality woodcarving cultural patterns and design thinking that can be applied to furniture product design are proposed.

# The questionnaire survey consists of four parts:

- Part 1: List of personal information, including 5 questions about gender, age, education level, income level, and life experience
  - Part 2: There are 10 psychological problems of demand
  - Part 3: There are 10 purchase motivation questions
  - Part 4: There are 10 consumer willingness questions

## **Evaluation of research tools:**

Researchers consult professional experts on the validity of the questionnaire, and revise and revise the questionnaire based on the expert's suggestions to make the results of the questionnaire more consistent with the research goals.

## **Data collection:**

Researchers' data collection includes four regions. One is Jianchuan, which is the most representative of Bai woodcarving culture, the second is the ancient city of Dali and Xizhou, which are the most representative of the main consumer groups, and the third is the most representative of furniture processing and production. Fengyi area, the fourth design service and user feedback are representative of Xiaguan area. It took 4 weeks to survey 203 people, and collected statistics on 198 questionnaires.

#### **Data analysis:**

Researchers use comparative analysis and descriptive statistics to analyze the effects of frequency, percentage, etc. on the results.

# RESEARCH RESULTS

1. It can be seen from Figure 1 that the respondents' consumption attitude index towards furniture products: the order of the index that affects consumers' product buying attitude is style, price, function, and material. It can be seen that style characteristics are the first factor consumers consider. The pursuit of differentiation after the improvement of living standards in recent years is related to individualized consumer psychology. In the market environment of consumption upgrading, the development of innovative furniture with elements of Bai nationality woodcarving culture caters to the needs of consumers.

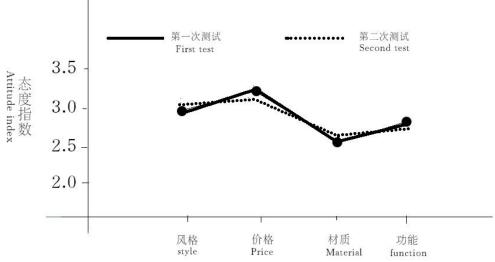
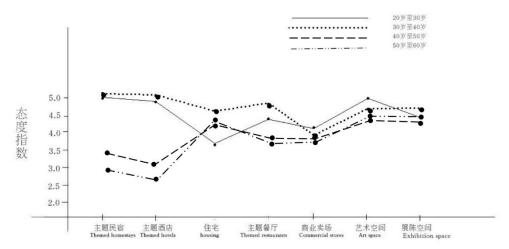


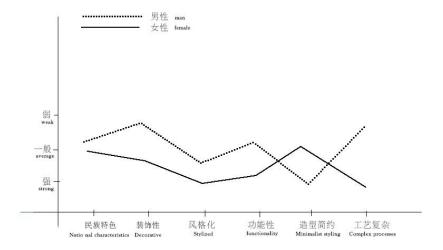
Figure 1 Indexes affecting consumer buying attitudes
Source: Zhenping Xiao

2. Judging from the respondents' evaluation indicators on the functional use of Bai nationality's innovative wood-carving furniture: 83.1% agree with the role of wood-carving innovative furniture on the space atmosphere, but 16.9% of the respondents do not like this form. The survey data on the age and living area of this part of the interviewees found that this part was mainly local young people. The survey records were consulted and qualitative analysis was carried out. The researchers believe that the reason for this phenomenon is largely due to the local young people's The form is more common and produces psychological and visual aesthetic fatigue. In another part of the people who agree with the effect of woodcarving innovative furniture on the atmosphere of space, 69.4% of people think it is suitable to set off the atmosphere in public spaces. Among them, the interviewees mentioned that the most frequent places are art spaces and commercial stores, theme hotels, Theme homestays and theme restaurants. 30.6% believe that it is suitable for Chinese-style and Japanese-style residential spaces. In the survey, respondents mentioned that the most frequently applicable spaces are entrance hall, living room background wall, study room, and dining room areas. Atmosphere is an important motivation for consumers to purchase innovative furniture with Bai nationality woodcarving elements. Therefore, when developing furniture, one should be good at observing the relationship between the furniture and these spaces, and at the same time, think about how to bring new artistic life to traditional woodcarving, so that it can gain local consumers. Recognition.



**Figure 2** Consumer Use Index **Source:** Zhenping Xiao

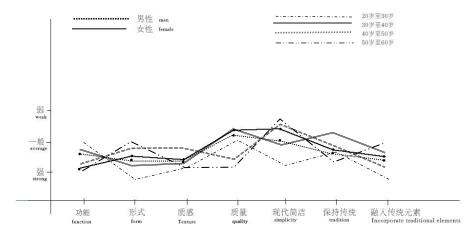
3. Figure 3 shows that different genders, ages, and attitudes towards project evaluation are different. Men's evaluation index for product style and tough style is higher than women's, while women prefer product functions and delicate sculptures. This shows that women are more interested in furniture decoration. Sexual functions are more sensitive than men, and men tend to be more modern than women in the appearance of furniture. The data also shows that women have the right to make decisions in purchasing furniture in the home, while in public and commercial spaces, there are more decision-makers. For men, designers as recommenders also have certain influencing factors. Therefore, the furniture in public spaces and commercial spaces is more inclined to a tough and concise design style. The furniture used in the home space is more inclined to products with good functionality and exquisite details.



**Figure 3** Consumer Image Index **Source:** Zhenping Xiao

4. Judging from the attitude indicators of consumers' perceptual consumption image in Figure 4, the respondents' perceptual image of Bai nationality's woodcarving innovative furniture design is affected by consumers' age, gender, education level, and household income. According to the survey, the main consumer groups are mainly female groups between the ages of 25 and 40. They pay more attention to the functionality of furniture products, followed by

the beauty of the shape and form, and then the texture and quality of the furniture. Middle-aged and elderly groups will consider Whether the product has added value that can be promoted. Respondents' consumption intentions for forms also show a certain pattern. About 42.2% of the people prefer a simple style. They think it is enough to use some Bai woodcarving elements in the furniture. Too many carving patterns are not conducive to daily cleaning. And 21.1% of people like to keep the traditional style and expression as much as possible. This part of the interviewees feel that this way can better retain the regional characteristics of the product. 24.5% of people hope that traditional styles can reflect the sense of the times of materials and technology. They believe that the expression of traditional woodcarving on modern materials and technology will give traditional Bai woodcarving a richer expression language. 12.2% of the respondents prefer modern fashion elements, but they still agree with the expression of the homophonic meaning of the Bai woodcarving patterns, and hope that innovative furniture products also have this function. It can be seen that consumers have higher consumption intentions for Bai woodcarving elements, which shows that Bai woodcarving innovative furniture meets most people's aesthetic standards with its unique shape and beauty, but the attitude index towards style is similar,-



**Figure 4** Product perceptual image **Source:** Zhenping Xiao

#### **CONCLUSIONS**

- 1. Analyzing the sample of interviewees, it is found that most of the main consumer groups are women between the ages of 25 and 40, and most of them have a college degree or above, and their family income is above the middle level. Most of them have been in other cities. Life experience, traveled to more than 4 cities, generally recognized the artistic charm of traditional culture, and willing to pay for related products.
- 2. From the research results, it is found that the interviewees will have some perceptual imaginations about Bai woodcarving culture, and based on such perceptual image products, these imaginations can be quantitatively studied, and the researcher can grasp the psychological trends and needs of consumers. Determine the direction of the design and design innovative Bai nationality woodcarving furniture products that meet consumer expectations.
- 3. Respondents' preference for the shape, color, material, texture, structure and meaning of Bai nationality's woodcarving furniture and whether they have a good attitude will be related to whether they choose to consume the product. Respondents prefer Bai nationality The exquisite and complicated shape of woodcarving and the auspicious and beautiful meaning, but

the shape is more inclined to the modern and simple form, the color and material are more inclined to be close to the natural color of the material itself, and the material is considered to be healthier and environmentally friendly.

#### **SUGGESTIONS**

# 1. Suggestions for developers

- 1.1 From the aspects of modern materials and modern craftsmanship, we consider how traditional Bai woodcarving forms carry out style transfer and reinterpretation of meaning.
- 1.2 Subdivide the consumer market and accurately target the functional needs of different places and environments and the product intentions of different consumer groups.
- 1.3 Exploring the auspicious meaning conveyed by traditional Bai woodcarving patterns, and embedding modern furniture design through decoration, is conducive to enhancing the connotative value of products.
- 1.4 Sort out the line language of Bai woodcarving patterns, so that it not only promotes rich patterns, but also adapts to the conditions of mass production of equipment.

# 2. Suggestions for future research

- 2.1 Collect traditional Bai woodcarving pattern materials as much as possible to provide for industrial development
- 2.2 Qualitative research should be conducted on the line language and composition form of Bai woodcarving patterns, such as the line characteristics of woodcarving patterns, the classification of Bai woodcarving patterns, and the morphological analysis of woodcarving patterns, so as to obtain the theme characteristics and modeling rules of Bai woodcarving patterns, which is the form of Bai woodcarving. Of contemporary innovation to provide internal driving force.
- 2.3 The contemporary innovative design of Bai woodcarving furniture should be considered from the changes in the market environment, such as online shopping and logistics and transportation. This has to consider what kind of assembly structure and assembly method to use to make the products have the conditions for online sales.

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## **REFERENCES**

- [1] Chen, W., & Bai, G. (2020). The historical and cultural roots of the rise and development of Bai nationality woodcarving in Jianchuan[J]. Guangxi Ethnic Studies, (04): 133-139.
- [2] Yuan, L. (2016). The life-saving "umbilical cord blood" must be kept [N]. Guangming Daily, (005). DOI: 10.28273/n.cnki.ngmrb.2016.001590.

- [3] Qiang, M., Zhu, C., Zeng, Y., & Wu, Z. (2021). Research on modern design of Bai furniture[J]. Forest Products Industry, 58(10): 43-46. DOI: 10.19531/j.issn1001-5299.202110009.
- [4] Su, Y., Shen, H., Wu, Z., & Liang, Y. (2020). Research on the application of traditional woodcarving in modern home design in northwestern Yunnan [J]. Furniture and Interior Decoration, (06): 100-101. DOI: 10.16771/j.cn43-1247/ts.2020.06.023.