



## The Creativity of Khitan Ceramic: Consumers' Satisfaction

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### Abstract

**Background and Aim:** This study examines the integration of Khitan ceramic cultural aesthetics into contemporary cultural and creative product design, focusing on how consumer satisfaction is influenced by cultural value, aesthetic appeal, practicality, creativity, emotional resonance, and product quality. By positioning Khitan ceramics within the broader discourse of cultural heritage studies, this research highlights their role in sustaining and innovating traditional craftsmanship through modern design methodologies.

**Materials and Methods:** The study employs a structured four-stage process—element extraction, design, production, and evaluation—aligning with cultural and creative product management frameworks. A mixed-method approach, incorporating both qualitative and quantitative analysis, was used to assess consumer satisfaction. A structured questionnaire was designed to operationalize the satisfaction dimensions, with data collected through purposive sampling from visitors at the Chifeng Municipal Museum. Statistical analysis, including factor analysis and reliability testing, ensured methodological rigor.

**Results:** Findings indicate that incorporating Khitan ceramic motifs into cultural and creative product design not only increases consumer appreciation of cultural heritage but also maintains strong market viability. Compared with prior studies focusing solely on purchase intention, this research extends the analysis to a multi-dimensional assessment of consumer satisfaction, offering insights for product optimization and strategic market positioning.

**Conclusion:** This study demonstrates the significance of integrating Khitan cultural heritage with contemporary design. It also demonstrates that consumers are inclined to purchase products that exude a strong cultural aura; however, their propensity to purchase is also influenced by creativity, practicality, and quality. This study employs a multidimensional approach to assess consumer satisfaction, thereby offering a valuable framework for enhancing the design of Khitan ceramic cultural and creative products and fostering the preservation of Khitan culture.

**Keywords:** Khitan Ceramic; Cultural and Creative Product, Consumers' Satisfaction

### Introduction

Traditional culture encompasses both intangible elements, such as customs, traditions, and daily habits, as well as tangible aspects, including architecture, temples, tools, books, artworks, and jewelry. Within the cultural tourism industry, museums and heritage parks showcasing curated exhibitions of regional traditions have become key attractions for travelers seeking immersive cultural experiences. As cultural tourism continues to expand, technological advancements and creative design methodologies play an increasingly crucial role in making cultural heritage more accessible and engaging. The fusion of traditional cultural elements with innovative design ensures that cultural heritage resonates with contemporary consumers while maintaining its authenticity and historical value.

Globally, the cultural and creative industry has emerged as a key driver of economic growth. In 2023, the market size of cultural and creative products reached approximately USD 141.674 billion, reflecting a 9.5% year-on-year increase (Zeng, 2024). This trend highlights the sector's vast market potential and the increasing consumer demand for heritage-inspired creative products. In China, the rapid expansion of the cultural and creative industry, particularly through the integration of traditional cultural elements, has led to significant achievements. With national policies actively promoting cultural tourism, regions across China are developing local cultural tourism projects that emphasize distinct regional characteristics.



According to MobTech's 2024 Cultural and Creative Industry Report, cultural and creative products accounted for 14% of the cultural products trade fair, marking a 6.5% year-on-year growth—a clear indication of continued market expansion (MobTech, 2024). However, while economic reports highlight market trends, a deeper exploration of how cultural heritage products align with consumer expectations is needed to optimize their commercial appeal.

Khitan ceramics, also known as Liao ceramics, are handcrafted daily-use and decorative ceramics produced by artisans during the Liao Dynasty. They exhibit a distinctive Khitan national style, reflecting the nomadic lifestyle and aesthetic traditions of the Khitan people (Wu, 2010). As tangible representations of Khitan culture, these ceramics embody the community's beliefs, customs, and artistic expressions (Diao, 2018). Currently, Khitan ceramic cultural and creative products fall into two categories: the direct replication of cultural relics and the adaptation of Khitan motifs into contemporary product design. Advances in modern materials and manufacturing techniques have significantly improved production precision and aesthetic quality, though they have also introduced questions regarding authenticity and consumer perceptions of cultural value (Lin, 2007). Understanding how modern production techniques influence consumer expectations is essential for balancing cultural heritage preservation with contemporary market demands.

Although prior research has examined the historical, aesthetic, and cultural significance of Khitan ceramics, limited studies have systematically assessed consumer satisfaction with Khitan ceramic cultural and creative products. Most research has focused on heritage preservation and artistic value, with little attention to consumer preferences in the cultural product market. There is a notable gap in studies that explore consumer satisfaction across multiple dimensions, including cultural significance, aesthetics, practicality, creativity, emotional engagement, and product quality. Addressing these research gaps, this study aims to develop a multi-dimensional evaluation framework for assessing consumer satisfaction with Khitan ceramic cultural and creative products. By integrating consumer behavior theories and cultural branding perspectives, this study provides practical insights into product optimization, market positioning, and the sustainable development of heritage-based creative industries.

## Objectives

1. To evaluate the design of jewelry products inspired by Khitan ceramics.
2. To analyze the factors influencing satisfaction and potential differences among consumer groups.

## Literature review

### 1. Research related to the consumers' satisfaction

In related research, most scholars focus on the impact of perceived value satisfaction of cultural and creative products on consumers' purchasing intention. Liu and Zhao (2024) employed the stimulus-organism-response (SOR) model to investigate the impact of metaphorical designs incorporating traditional cultural symbols on consumer purchase intentions. Their findings indicate that consumers' perceptions of a product's cultural value, visual appeal, and emotional resonance significantly enhance their intention to purchase. Guo (2018) conducted a study on consumer purchase intentions and found that perceptions of a product's cultural significance, functionality, and cost play a crucial role in shaping purchasing decisions. Among these factors, cultural significance was identified as the most influential determinant. According to the research of Dangprapai et al (2020), tourists usually come from different cultural backgrounds and have different aesthetic tastes, so when purchasing products, they mostly base their purchases on their cultural background and preferences. Therefore, the visual appeal of cultural and creative products is a significant factor influencing consumer purchase intentions. To enhance consumer attraction, product design should adapt to modern lifestyles and aesthetics while preserving inherent cultural attributes. Li and Li (2022) demonstrated that the higher a consumer's level of Chinese traditionality, the stronger the influence of design aesthetics on purchase intention through perceived value, and vice versa. Liu (2020) found that the public is more receptive to low-priced products. There are gender differences in creativity ratings, and



emotion is the leading dimension in the creativity assessment. Other factors, such as customer preferences and interests, can easily influence usefulness. Li and Zeng (2018) believe that cultural and creative products are based on certain cultural elements, transformed into design languages through innovative thinking, and products with aesthetic value and use value are obtained through integration. Suhaily (2022) discussed the importance of the appearance of ceramic cultural creative products from high to low: the pattern of ceramic cultural creative products, the color of ceramic cultural creative products, the material of ceramic cultural creative products, modeling design, the implications of ceramic cultural creative products, the beauty of ceramic cultural creative products, the multiple functions of ceramic cultural creative products, and ceramic cultural creative products containing scientific and technological elements.

### 2. Current status of the cultural and creative products market in China

According to data released by the iiMedia Industry Upgrading Research Institute, female consumers dominate the market for cultural and creative products, accounting for 63.2% of the total, with nearly 90% of consumers aged between 19 and 40 (iiMedia Industry Upgrading Research Institute, 2023). The “2024 Cultural and Creative Industry Report” published by Mob Research Institute indicates that post-2000s females are the main force in cultural and creative consumption. Moreover, consumers exhibit a strong preference for small-sized daily necessities with rich cultural connotations, emphasizing a demand for both practicality and cultural value in purchasing decisions (MobTech, 2024). These data suggest that women hold a primary position as the main consumer group in the cultural and creative products market. Therefore, Khitan ceramic cultural and creative products with rich variations in colors and patterns can target the jewelry designs that are most popular among female audiences.

### 3. Khitan ceramics’ cultural connotation and visual artists characteristics

The sun rises in the east and sets in the west every day, which can make all things grow. It can also cause people to suffer from heat, causing the land to dry out, livestock to suffer, plants to wither, and rivers to dry up. Due to the insufficient level of science and technology, the Khitan people were unable to explain the natural phenomenon of the rising and setting of the sun and were unable to combat the drought and reduced yields caused by sun exposure. Therefore, the shamanism practiced by the Khitan people also worshiped the sun like other primitive religions around the world, and even the sun in the East is also considered to be noble and divine (Qi, 2007). Later, the Khitan people even connected the concept of sun worship in the traditional form of shamanism with the birth of the emperor and regarded the sun as a symbol of the emperor and the prince. The Khitan royal family would worship the sun and pray for blessings every time a new prince was born. “History of Liao Taizu Ji” records the mysterious phenomenon when Abaoji was born: “At the beginning of the thirteenth year of Xiantong in the Tang Dynasty (872), the mother dreamed that the sun fell into her arms, and she was pregnant (Zhao, 2019\_). When she gave birth to the child, there was a divine light and a strange fragrance in the room. The baby’s body is like a three-year-old child, and the baby will be able to crawl soon.” Regarding the phenomenon of sun worship in the fertility customs of the Khitan people, it is recorded in “Yanbeilu” written by Wang Yi of the Song Dynasty: “When the queen was pregnant for more than eight months and was about to give birth, she first built the Wuliangshou Dojo, burned incense every day, and worshiped for one month. Forty-nine white felt tents were built in advance for each of the emperor’s sleeping quarters. The inner one is the largest, with a circumference of seventy-two feet. When the queen felt that she was about to give birth, she would burn incense in the dojo and pray to the sun.”

The area ruled by the Liao Dynasty had a rich geographical environment and intertwined rivers. In addition to grazing and hunting, the Khitan people also fished. Therefore, fish patterns appeared on Khitan ceramics, usually in the form of a combination of two or three.





**Figure 1** Sun pattern and double fish pattern brush washing dish  
**Note:** Photographed by a researcher at the Chifeng Municipal Museum (2024)

#### 4. Research related to the Khitan ceramics, cultural, and creative products

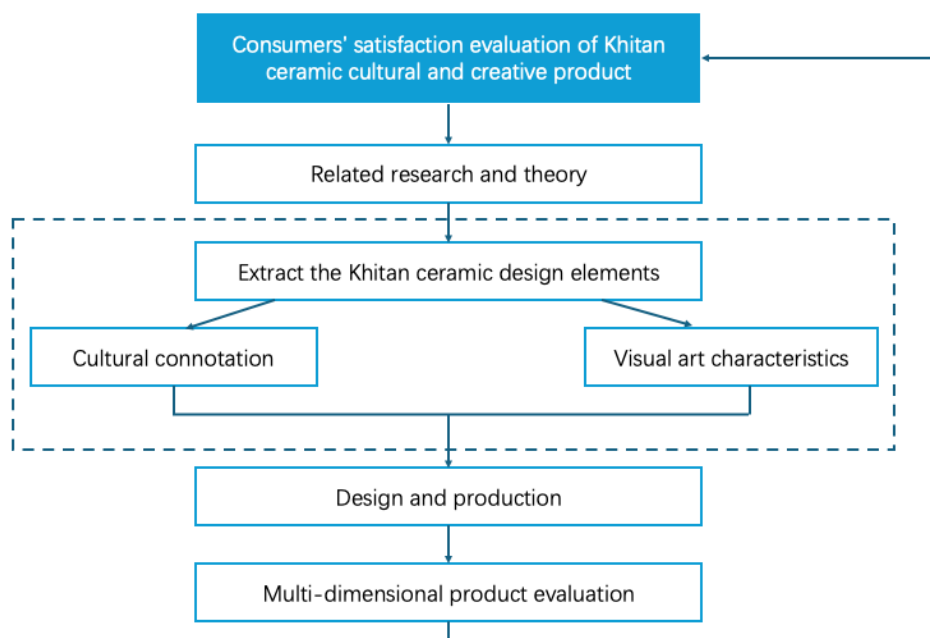
Li (2004) pointed out that a major challenge in Khitan cultural and creative research is the public's limited awareness of Khitan culture. Furthermore, existing Khitan cultural and creative products tend to be simplistic in form, lacking a distinct cultural identity. Additionally, their failure to integrate with widely popular new media channels further restricts their reach and appeal to modern audiences. Zhao (2019) extracted and translated the visual artistic elements of Khitan ceramics into cultural and creative products that align with modern aesthetic preferences based on semiotic theory. This approach enhances the acceptance of Khitan cultural products, aiming to promote the dissemination of Khitan culture while boosting revenue in the cultural tourism industry. Ma's (2015) research focuses on the development of Khitan cultural tourism products from a cultural perspective, emphasizing the rich heritage of Khitan culture and the challenges in its commercialization. Her study highlights the need for integrating Khitan cultural symbols into tangible products, enhancing their market appeal, and leveraging cultural tourism to drive economic benefits. Liu (2020) integrated distinctive Khitan ceramic wine vessels and traditional drinking customs into the design of a series of cultural and creative products, creating items that blend the visual artistic elements of Khitan ceramics with Khitan cultural heritage while adapting to modern lifestyles. Zhu and Deng (2020) categorized the visual perception of Khitan ceramic cultural imagery into elegance, charm, boldness, and magnificence. Using a metaphorical design approach, they developed cultural and creative products that embody the perception of elegance.

Existing literature on Khitan ceramic cultural and creative products indicates that while individual studies have examined traditional aesthetic elements and symbolic dimensions, there remains a notable gap in integrating these cultural features with contemporary design methodologies, digital media platforms, and empirical assessments of consumer preferences. Moreover, current research often focuses on isolated aspects—such as singular visual categories or specific cultural customs—rather than developing a comprehensive framework that fully captures the multifaceted nature of Khitan cultural expression and its potential in modern markets. Specifically, there is a lack of studies assessing consumer satisfaction with redesigned cultural and creative products that integrate Khitan ceramic aesthetics.

### Conceptual Framework

Considering the distinctive cultural connotations of Khitan ceramic culture, a systematic evaluation of consumer satisfaction across multiple dimensions—such as cultural value, aesthetic appeal, practicality, innovation, emotional resonance, and quality—holds substantial importance for optimizing future product development and design strategies. Consequently, this study aims to assess consumer satisfaction with Khitan ceramic cultural and creative products using a multidimensional evaluation framework, thereby providing insights to enhance product design and market appeal. The conceptual framework developed for this research is illustrated in Figure 2.





**Figure 2** Research conceptual framework  
**Note:** Constructed by the researcher (2024)

## Methodology

### 1. Literature Review and Theoretical Framework

This study begins with a comprehensive literature review to establish a theoretical foundation, drawing from research on Khitan ceramics, cultural branding, consumer satisfaction, and cultural and creative product management. The literature review clarifies the historical, aesthetic, and functional attributes of Khitan ceramics and their adaptation into cultural and creative products. By analyzing previous studies on consumer behavior in heritage-based product markets, this stage helps identify key factors influencing consumer perceptions. The findings from this review guide the development of a multidimensional evaluation framework for assessing consumer satisfaction with Khitan ceramic cultural and creative products.

### 2. Product Design and Development

The product design phase involves the extraction of visual elements from Khitan ceramics, such as motifs, colors, and artistic patterns, and their application in contemporary cultural and creative products. The sun and double fish pattern, a recurring symbol in Khitan cultural artifacts, was selected for adaptation into a jewelry design. The process follows three stages: element extraction, design adaptation, and production. The extraction stage focuses on identifying motifs with strong cultural significance. In the adaptation phase, these elements are refined to align with modern aesthetics and consumer preferences while maintaining their original cultural meaning. The production stage integrates traditional craftsmanship with modern manufacturing techniques to ensure that the final product balances authenticity with commercial viability. The materials used in production, including copper-plated silver, were selected for their affordability, durability, and ability to retain intricate details through laser cutting and paint techniques.

### 3. Data Collection and Analysis

A structured questionnaire was used to assess consumer satisfaction with Khitan ceramic cultural and creative products, incorporating a purposive sampling method to target individuals familiar with Khitan cultural heritage. The study was conducted at the Chifeng Municipal Museum, a key site for Khitan cultural tourism, and the questionnaire was distributed through the online survey platform "Wenjuanxing" to ensure



broad accessibility. Cochran's formula (1977) was applied to determine an appropriate sample size, resulting in 384 valid responses. The questionnaire consists of two sections: demographic information, including gender, age, education, occupation, and income, and an evaluation of consumer satisfaction across seven dimensions—cultural value, aesthetic appeal, practicality, creativity, emotional resonance, quality, and purchase willingness—using a five-point Likert scale.

Data analysis was performed using SPSS 26.0, applying descriptive analysis, reliability testing, validity testing, and correlation analysis. Reliability was assessed through Cronbach's  $\alpha$  coefficient, with values exceeding 0.7 indicating strong internal consistency. Validity was examined using the Kaiser-Meyer-Olkin (KMO) test and Bartlett's sphericity test, confirming the appropriateness of the dataset for factor analysis. Pearson correlation coefficients were used to analyze relationships among consumer satisfaction dimensions, particularly their impact on purchase intention. The findings from this analysis provide empirical insights into the effectiveness of integrating Khitan cultural elements into modern product design and offer recommendations for optimizing cultural and creative product development.

## Results

### 1. Khitan ceramic cultural and creative product design and production

#### 1.1 Design Elements Extraction

























This sun pattern and double fish pattern brush washing dish in Figure 1 was adopted with the general color combination—white, green, and sauc. The color of Khitan ceramics mainly comes from the color of the glaze, including seven colors: white, green, yellow, tea foam, sauc, black, and cyan. In addition to the single-color ceramics, these glaze colors have also formed some fixed matching habits. The brush washing dish's color combination is one of them. This pattern, rich in cultural symbolism, is well-suited for situational design approaches. Preserving the original pattern and color to the greatest extent ensures the accurate transmission of cultural connotations while adapting to modern lifestyles through the integration of new functions.

The Khitan ceramic cultural and creative design process involves three key stages: element extraction, design adjustment, and production. First, element extraction identifies and selects distinctive Khitan ceramic motifs, patterns, and artistic features that embody cultural significance. Next, design adjustment involves refining and adapting these elements to contemporary aesthetics and functional requirements while preserving their cultural essence. Finally, the production phase integrates traditional craftsmanship with modern manufacturing techniques to create finished cultural and creative products that resonate with contemporary consumers.

Table 1 illustrates the process of extracting and designing the Sun and Fish patterns as design elements. The procedure begins with the extraction of usable patterns, followed by a color analysis, where each color is identified and assigned a color code using Adobe Illustrator, a professional design software. The analysis of the extracted colors reveals that the original pattern primarily features red and green color systems. However, the original pattern exhibits low color purity and high brightness, which weakens its visual appeal. To enhance its aesthetic impact, the researcher adjusted the color scheme while preserving the original style, refining the brightness variations within the same color system, and increasing the contrast between different color systems. These adjustments were made to enhance visual attraction and artistic appeal, ensuring a more dynamic and engaging design.



**Table 1** Product design process

| Original pattern  | Design elements extraction  | Product design  |  |   |   |   |   |   |  |  |
|---|---|---|--|---|---|---|---|---|--|--|
|                        |  <table><tr><td> C:56 M:87 Y:79 K:36</td><td> C:69 M:32 Y:87 K:0</td></tr><tr><td> C:42 M:92 Y:100 K:7</td><td> C:19 M:8 Y:22 K:0</td></tr><tr><td> C:23 M:88 Y:100 K:0</td><td> C:7 M:4 Y:7 K:0</td></tr><tr><td> C:43 M:100 Y:100 K:11</td><td></td></tr></table> |  C:56 M:87 Y:79 K:36 |  C:69 M:32 Y:87 K:0 |  C:42 M:92 Y:100 K:7 |  C:19 M:8 Y:22 K:0 |  C:23 M:88 Y:100 K:0 |  C:7 M:4 Y:7 K:0 |  C:43 M:100 Y:100 K:11 |  |  |
|  C:56 M:87 Y:79 K:36   |  C:69 M:32 Y:87 K:0  |   |  |   |   |   |   |   |  |  |
|  C:42 M:92 Y:100 K:7   |  C:19 M:8 Y:22 K:0   |   |  |   |   |   |   |   |  |  |
|  C:23 M:88 Y:100 K:0   |  C:7 M:4 Y:7 K:0   |   |  |   |   |   |   |   |  |  |
|  C:43 M:100 Y:100 K:11 |   |   |  |   |   |   |   |   |  |  |

Source: The researcher (2024)

## 1.2 Production

To ensure authenticity in design while maintaining cost efficiency, the researcher employed laser cutting and paint production techniques, selecting copper-plated silver materials for fabrication. These methods allow for precise detailing, enhanced durability, and aesthetic refinement, ensuring that the final product remains true to its cultural origins while being economically viable for production. Figure 3 presents the finished bracelet featuring a sun and double fish pattern, inspired by Khitan ceramics. The design integrates traditional cultural motifs with contemporary craftsmanship, reflecting both historical significance and modern aesthetic refinement.



**Figure 3** Sun and double fish pattern bracelet

Source: The researcher (2024)

## 2. Consumers' satisfaction evaluation

To assess whether cultural and creative products designed based on the cultural and artistic characteristics of Khitan ceramics can meet consumer demands, a consumer satisfaction evaluation is necessary. This evaluation not only provides empirical support for the design's effectiveness but also serves as a key verification of the hypothesis that Khitan ceramic cultural and artistic elements retain their vitality for inheritance and innovation in modern society.



## 2.1 Basic information of the respondents

In this study, a total of 384 questionnaires were collected. The demographic information of the respondents is presented in Table 2. As seen in the table, in terms of gender distribution, female respondents account for 53.13%, slightly higher than male respondents at 46.88%. Regarding age distribution, the 19-28 age group has the highest proportion at 31.77%, followed by the 29-38 age group, indicating that most respondents are relatively young. In terms of education, 79.17% of respondents have a bachelor's degree or higher, reflecting a high level of education. Among occupational categories, enterprise employees constitute the largest proportion (46.61%), followed by employees of government agencies and public institutions (20.31%), suggesting that most respondents come from the corporate or public sectors. In terms of income, the majority of respondents earn between 3,001 and 5,000 yuan per month (41.93%), while the high-income group (above 15,001 yuan) accounts for only 2.34%. Overall, the respondent group is relatively young, well-educated, primarily working in enterprises and public sectors, with a moderate to low income level.

**Table 2** Basic information of the respondents (N=384)

| Profile        | Items                 | Number | Percentage (%) |
|----------------|-----------------------|--------|----------------|
| Gender         | Male                  | 180    | 46.88          |
|                | Female                | 204    | 53.13          |
| Age            | 18≤                   | 18     | 4.69           |
|                | 19~28                 | 122    | 31.77          |
|                | 29~38                 | 101    | 26.3           |
|                | 39~50                 | 83     | 21.61          |
|                | ≥51                   | 60     | 15.63          |
| Education      | High school and below | 30     | 7.81           |
|                | College               | 50     | 13.02          |
|                | Undergraduate         | 239    | 62.24          |
|                | Graduate and above    | 65     | 16.93          |
| Occupation     | Civil servant         | 78     | 20.31          |
|                | Corporate employees   | 179    | 46.61          |
|                | Worker                | 8      | 2.08           |
|                | Farmer/Herdsman       | 10     | 2.6            |
|                | Self-employed persons | 12     | 3.13           |
|                | Student               | 18     | 4.69           |
|                | Design practitioner   | 53     | 13.8           |
|                | Freelancer            | 17     | 4.43           |
|                | Others                | 9      | 2.34           |
| Monthly income | 3000 CNY≤             | 11     | 2.86           |
|                | 3001~5000 CNY         | 161    | 41.93          |
|                | 5001~8000 CNY         | 106    | 27.6           |
|                | 80001~15000 CNY       | 97     | 25.26          |
|                | ≥15000 CNY            | 9      | 2.34           |

Source: The researcher (2024)

## 2.2 Reliability and validity analysis

### (1) Reliability test

The Cronbach's Alpha reliability test was performed on the questionnaire. If this value is higher than 0.8, it means that the reliability is high; if this value is between 0.7 and 0.8, it means that the reliability is good; if this value is less than 0.6, it means that the reliability is poor. According to Table 3, Cronbach's  $\alpha$  coefficient for the product dimensions is 0.856, indicating good reliability in measurement.





**Table 3** Questionnaire reliability test

| Cronbach's $\alpha$ | Cronbach's $\alpha$ Based on Standardized Items | Items |
|---------------------|---|-------|
| 0.856               | 0.849   | 7     |

Source: The researcher (2024)

## (2) Validity test

The Kaiser-Meyer-Olkin (KMO) index is a measure of whether the data is suitable for factor analysis. The value of KMO ranges from 0 to 1. The closer the value is to 1, the stronger the adaptability of the data to factor analysis. Conversely, if the KMO index is close to 0, then the adaptability of the data to factor analysis is weaker. The common standard for the KMO value indicator is greater than 0.6. As shown in Table 4, the KMO test value for the survey data is 0.895, which is greater than 0.6, indicating that the questionnaire is suitable for factor analysis. The results of Bartlett's sphericity test show an approximate chi-square value of 1061.687, with a significance level of 0.000 ( $P < 0.01$ ). Therefore, the null hypothesis of Bartlett's test is rejected, suggesting that the scale has a good validity structure and is appropriate for factor analysis.

**Table 4** Questionnaire validity test

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                        | 0.895    |
|--|------------------------|----------|
| Bartlett's Test of Sphericity                    | Approximate chi-square | 1061.687 |
|  | df                     | 21       |
|  | Sig.                   | 0.000    |

Source: The researcher (2024)

## 2.3 Consumers' satisfaction analysis

In the evaluation of consumer product satisfaction, a five-point Likert scale was used to assess consumers' perceptions of various product dimensions (1 means "least satisfied," 5 means "most satisfied"). Table 5 presents the consumer evaluation results for the sun and double fish pattern bracelet, with mean scores across seven key dimensions: cultural, aesthetic, practical, creative, emotional, quality, and purchase willingness. The overall mean score of 3.74 ( $SD = 1.150$ ) indicates a high level of consumer satisfaction with this product.

Among the evaluation criteria, the aesthetic dimension received the highest rating ( $M = 3.93$ ,  $SD = 0.926$ ), suggesting that consumers particularly appreciate the bracelet's visual appeal and design aesthetics. Similarly, the cultural significance ( $M = 3.84$ ,  $SD = 1.006$ ) was highly rated, indicating that the bracelet effectively conveys Khitan cultural elements. The practicality ( $M = 3.63$ ,  $SD = 1.261$ ) and purchase willingness ( $M = 3.59$ ,  $SD = 1.257$ ) dimensions, while still rated high, have slightly lower scores compared to other factors. This suggests that while the bracelet is well-received in terms of its design and cultural significance, there may be opportunities to further enhance its functionality and market appeal to strengthen consumer purchasing intent.

Overall, the high ratings across all dimensions confirm the strong consumer acceptance of the Sun and Fish Pattern Bracelet. The findings suggest that the product successfully integrates aesthetic, cultural, and creative elements, making it a desirable cultural and creative product.

**Table 5** The evaluation scores of consumers' satisfaction

| Evaluation List | $\bar{X}$ | Std. Deviation | Evaluation level |
|-----------------|-----------|----------------|------------------|
| Cultural        | 3.84      | 1.006          | High             |
| Aesthetic       | 3.93      | 0.926          | High             |
| Practical       | 3.63      | 1.261          | High             |
| Creative        | 3.68      | 1.207          | High             |



| Evaluation List      | $\bar{X}$ | Std. Deviation | Evaluation level |
|----------------------|-----------|----------------|------------------|
| Emotional            | 3.78      | 1.184          | High             |
| Quality              | 3.72      | 1.207          | High             |
| Purchase willingness | 3.59      | 1.257          | High             |
| Total                | 3.74      | 1.150          | High             |

Source: The researcher (2024)

#### 2.4 Correlation Analysis of Consumer Satisfaction Dimensions

Table 6 presents the Pearson correlation coefficients among the key dimensions of consumer satisfaction, including cultural value, aesthetics, practicality, creativity, emotional appeal, quality satisfaction, and purchase intention. The results indicate significant positive correlations among these variables ( $p < 0.01$ ), suggesting interdependence in consumer perceptions.

**Table 6** Correlation Analysis of Consumer Satisfaction Dimensions

|                      | Culture | Aesthetic | Practicality | Creativity | Emotion | Quality | Purchase willingness |
|----------------------|---------|-----------|--------------|------------|---------|---------|----------------------|
| Culture              | 1       |           |              |            |         |         |                      |
| Aesthetic            | 0.280** | 1         |              |            |         |         |                      |
| Practicality         | 0.370** | 0.356**   | 1            |            |         |         |                      |
| Creativity           | 0.293** | 0.275**   | 0.639**      | 1          |         |         |                      |
| Emotion              | 0.293** | 0.282**   | 0.579**      | 0.576**    | 1       |         |                      |
| Quality              | 0.300** | 0.294**   | 0.589**      | 0.577**    | 0.571** | 1       |                      |
| Purchase willingness | 0.338** | 0.346**   | 0.660**      | 0.611**    | 0.514** | 0.607** | 1                    |

Source: The researcher (2024)

Notably, purchase intention exhibits the strongest correlations with practicality ( $r = 0.660$ ,  $p < 0.01$ ), creativity ( $r = 0.611$ ,  $p < 0.01$ ), and quality satisfaction ( $r = 0.607$ ,  $p < 0.01$ ). This suggests that consumers are more likely to consider purchasing a product when it is perceived as functional, innovative, and of high quality. Additionally, practicality is highly correlated with creativity ( $r = 0.639$ ,  $p < 0.01$ ) and quality satisfaction ( $r = 0.589$ ,  $p < 0.01$ ), indicating that products perceived as useful also tend to be regarded as well-crafted and creatively designed. While aesthetics ( $r = 0.346$ ,  $p < 0.01$ ) and cultural value ( $r = 0.338$ ,  $p < 0.01$ ) also influence purchase intention, their effects appear to be relatively weaker compared to practical and quality-related factors. These findings suggest that while cultural and aesthetic elements contribute to consumer perception, practicality, quality, and innovative design play a more decisive role in shaping purchase behavior. Therefore, enhancing product usability and craftsmanship while preserving cultural significance may be an effective strategy for improving consumer satisfaction and purchase willingness.

## Discussion

Zhao (2019) and Ma (2015) both underscored the critical role of cultural attributes in cultural and creative products, employing semiotic theory to integrate culturally significant visual art elements into their designs. Similarly, this study also adopts a semiotic perspective, specifically examining the Khitan people's sun worship and fishing-hunting lifestyle, extracting ceramic decorative motifs related to these two cultural connotations, and developing corresponding cultural and creative products. However, rather than confining its scope to the translation of cultural symbols and product design, this research places greater emphasis on evaluating consumers' satisfaction and purchase intention across multiple product dimensions. In contrast, most existing studies have focused predominantly on the cultural and aesthetic



features of product design or applied cultural elements to a single product category, rarely undertaking systematic market-level investigations or incorporating user feedback. By integrating consumer satisfaction surveys and empirical analysis into the design process, this study aims to establish a more comprehensive evaluative framework, thereby further verifying the feasibility and developmental prospects of Khitan ceramic cultural and creative products in contemporary markets.

## Conclusion

This study identifies unique design elements with Khitan cultural connotations and visual aesthetic characteristics and explores their application in contemporary product design. By systematically implementing a four-stage process—element extraction, design, production, and evaluation—the study demonstrates the feasibility of integrating Khitan ceramic aesthetics into modern cultural and creative products. Findings indicate that the incorporation of Khitan visual aesthetics enhances consumer satisfaction across multiple dimensions, including cultural significance, aesthetic appeal, practicality, innovation, and emotional engagement. Additionally, the study highlights that the successful integration of cultural elements depends on achieving a balance between heritage and innovation, ensuring that traditional aesthetics remain relevant to modern consumer preferences. These results highlight the need to integrate cultural symbolism with functional values and contemporary design considerations. Although cultural and aesthetic characteristics are integral to product differentiation in the market, consumers' purchasing decisions appear to be more influenced by tangible factors such as usability, innovative design, and manufacturing quality. This emphasis may be related to the relatively young demographic and income level of the sample, which may reinforce expectations of practicality and product quality value for money, as well as cultural representativeness. In addition, the positive correlations between creativity, practicality, and quality mean that strengthening one dimension (e.g., creative design) may simultaneously strengthen other dimensions (e.g., practicality).

## Recommendation

### 1. General Recommendations

To enhance the development of Khitan ceramic cultural and creative products, integrating consumer feedback into the design process is essential. Iterative testing, surveys, and engagement with target audiences can refine product aesthetics, functionality, and appeal. Balancing heritage preservation with modern innovation ensures these products remain culturally authentic while meeting contemporary consumer expectations.

Collaboration with cultural institutions, designers, and marketing professionals can strengthen branding and visibility. Storytelling, social media marketing, and influencer collaborations can enhance consumer connection and broaden market reach. Diversifying distribution channels, including online platforms and museum stores, will further improve accessibility and market penetration.

Sustainability should also be a priority. Cost-effective production methods, such as small-batch or on-demand manufacturing, can maintain quality while managing expenses. Additionally, incorporating sustainable materials and ethical production practices can align with consumer trends favoring responsible consumption.

### 2. Further Research Recommendations

Future research should explore how consumer preferences for cultural products evolve. Longitudinal studies can track shifts in satisfaction, purchase behavior, and perceptions of authenticity. Research on consumer segmentation will help identify how different demographics respond to Khitan ceramics, refining market strategies.

Investigating digital innovations such as augmented reality, virtual exhibitions, and product customization can provide insights into enhancing consumer engagement. Additionally, studying the role of nostalgia in shaping demand for heritage-based products could offer strategies to strengthen cultural and creative product appeal.





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