

The Changes of Tourism Cultural and Creative Products in the Future: A Study on the Consumer Preference of Intangible Cultural Heritage Products—Taking “Tujia Brocade” as an Example

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“Tujia Brocade”, the traditional crafts of China, is the Chinese people's wisdom for thousands of years, which shows the creativity and intelligence of the people. The tourism industry in Tujia has been developed rapidly but the tourism cultural and creative products have been not very rich and the consumer aesthetic demand have not received adequate emphasis. The existing research findings were mainly the record of “Tujia Brocade” and the related design applications of “Tujia Brocade”. The research about the preference for textures of “Tujia Brocade” has been still rare. This study made research on the relationship between the consumer imagery and preference of different types of “Tujia Brocade” patterns and the factors of gender, residence and design background. The research questionnaire was designed base on 20 vocabularies and 9 representative samples of “Tujia Brocade” patterns. After the collection of 59 questionnaires, the independent T-test and the one-way ANOVA was used to analyze. The research results reveal that the factor of gender and the factor of residence have great difference for the consumer preference on “Tujia brocade” patterns. The factors of gender, residence, education background and design background will influence the imagery of “Tujia brocade” patterns, of which the factor of design background has significant influences. In conclusion, the consumer imagery and preference analysis of “Tujia brocade” may help merchants understand the consumer psychology. The aesthetic demands of consumers can be widely considered. The sharp insight and deep understanding of consumers may also help “Tujia brocade” products expand consumer market and improve market competitiveness. The changes of traditional “Tujia brocade” industry can also be refreshed and the market prospects may be broad.

Keywords: *Tujia brocade; imagery; preference; tourism products changes; independent T-test; one-way ANOVA*

1. Introduction

Chinese traditional cultural has a long history. Every nation has its own representative traditional handicraft skill, carrying the life history and culture. "Tujia brocade" is one of the four famous brocades in China, and it is also known as "Xilankapu". It has a venerable history dating back more than a thousand years. "Tujia brocade" incarnates ancient folk art's exquisite skills and embodies the wisdom and diligence of local people. "Tujia brocade" passes on Tujia culture with national features, and it has been the precious and valuable spirit

strength in Chinese traditional culture. In 2005, "Tujia brocade" was included in the national protection lists of non-material cultural heritage, so that it can be better pass on and carry forward the excellent Chinese traditional culture. "Tujia brocade" was selected as the research object. The consumer preference of it also were investigated. The study aims to assist designers, artists and manufacturers to design "Tujia brocade" tourism cultural and creative products and alternatives. The analysis of consumer preference may bring changes to traditional "Tujia brocade" tourism product industry, and it help traditional crafts try to walk out of predicament.

1.1. The origin of "Tujia brocade"

Tujia nationality has a long history, located in Hunan, Hubei, Chongqing and Guizhou. The ancient civilization of Bachu gave birth to Tujia culture. It continuously learned from other ethnic groups during the long-term development process. "Tujia Brocade" is one of the most representative cultural crystallization, which displays the landscape, customs, religion. The history of "Tujia Brocade" is rich and colorful, which is a perfect combination of practicability and artistry. Moreover, it also plays an important role in religious ritual. The local people called "Tujia Brocade" as "Xilan Kapu". "Xilan" means quilt and "Kapu" means flowers. When Tujia women married, "Tujia Brocade" would be a part of her dowry. The quantity and quality of "Tujia Brocade" often highlighted her status in their families and also reflected the economic strength of their families. It is said that "Tujia Brocade" has a thousand-year history. The origin of "Tujia Brocade" can be traced back to the culture of Bachu. At that time, the people were good at weaving and agriculture production. Some "Tujia Brocade" patterns significantly influenced by the totem culture, such as "Taitai tiger" and "Snake flower" (Figure1).

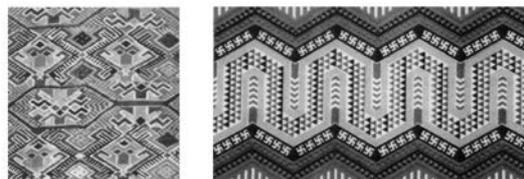


Figure 1. Images side by side showing the Taitai tiger pattern (left) and the Snake flower pattern(right). Source: Sirankap's descendant: Tujia brocade masters and inheritor oral history

It can be seen from the origin of "Big geometric pattern" and "Dragon and phoenix pattern" (Figure 2) which were unearthed in Chu kingdom is based on Bachu culture.



Figure 2. Images side by side showing the Big geometric pattern (left) and the Dragon and phoenix pattern (right). Source: Sirankap's descendant: Tujia brocade masters and inheritor oral history

Since the Qin and Han dynasties, the brocade industry in Tujia area had developed gradually. During the three kingdoms period, Zhuge Liang who was an outstanding statesman and strategist strongly supported brocade development to bring enormous profits for the country. During the Tang and Song dynasties, the economic exchange of Tujia was increased

greatly. The economic exchange promoted the brocade industry in Tujia area to have a further development. In the Yuan, Ming, Qing dynasty, "Tujia Brocade" were known as "Tu Jing" or "Hua Bu", and it widely used in clothing. After the bureaucratization of the Qing dynasty, the weaving skills were further improved.

1.2. The characteristics of "Tujia brocade"

"Tujia brocade" needed cotton twine warp direction yarns interwoven with dyed weft direction yarns using wood shuttles and bamboo buckles. Before the bureaucratization, "Tujia brocade" had been primarily used for common clothing, accessories, backpacks, panniers and embroidered purses. It also could be used as bedspreads, curtains, tablecloths, cushions, towels, table mats and so on. On top of many useful functions, "Tujia brocade" may also be used in religious ceremonies.

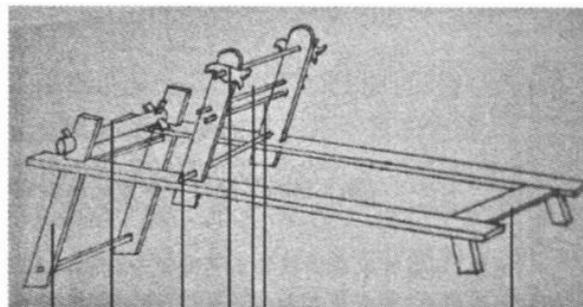


Figure 3. A wooden twill weaving machine.

Source: Sirankap's descendant: Tujia brocade masters and inheritor oral history

In addition, young people often use "Tujia brocade" as the token to show their love. "Tujia brocade" needed a wooden twill weaving machine (Figure 3). This loom almost the same as the loom in the Han dynasty in structure and cross-stitch method. The twill weaving machine was about 1.5 meters long, 0.7 meters wide, about 1 meter high, mainly including rack, roller plate, palm stick, tread stick, reed, thoreau, crown daisy, holding pole, linkwork, roller bar, ligature, interlocking bar, and quantizer(Cheng, Yang, Jiang, & Hu, 2019).

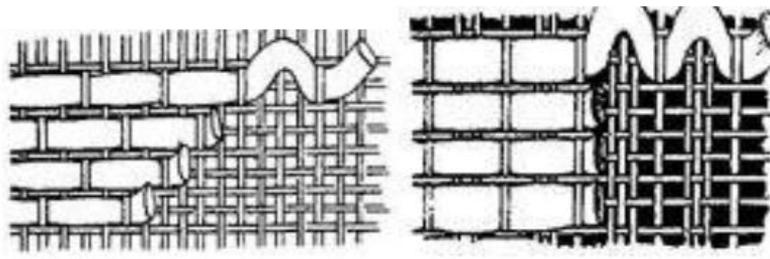


Figure 4. Images side by side showing the plain weave (left) and the twill weave (right).

Source: Research on the Art Symbol of Tujia Brocade

The rolling plate was used to wind warp and the heald bar will pull weaving warp in the weaving process. This machine can be controlled to weave plain fabrics and twill fabrics (Figure 4). The weaving technology of "Tujia brocade" was the crystallization of the wisdom of Tujia people. The patterns of it express the feelings of the Tujia weavers. The whole process was complicated and rigorous. It needed persistence and perseverance according to the details of the patterns, otherwise errors may occur.

The number of "Tujia brocade" patterns were quite abundant. Common traditional patterns were nearly 120 species, but there were approximately 80 kinds of traditional patterns can be woven currently. Types of "Tujia brocade" mainly included "Animal-themed type", "Plant-themed type", "Living appliances-themed type", "Custom- and tradition-themed type", "Geometric-themed type" and "Modern-themed type". These themes were all connected to local living environment. "Tujia brocade" reflected Tujia people's love and understanding for life. "Tujia brocade" patterns had many characteristics, including abstraction and abundance. The characteristic of abstractness was the main feature of "Tujia brocade" patterns. The local honest folkway of Tujia people and unusual stitch has a tremendous effect on the expression ways of patterns. The curves of "Tujia brocade" patterns were replaced by step-like lines. Everything in the natural world could be woven into "Tujia brocade" by Tujia weavers through changing smooth curves into step-like lines. Some "Tujia brocade" were composed of repeating base patterns, and some patterns included separate patterns only. "Tujia brocade" were influenced by Pakistan culture in early days, and then continued to absorb a variety of culture. Finally, "Tujia brocade" owned abundant elements, from daily life to astronomical phenomena.

1.3. The development predicament of "Tujia brocade"

"Tujia brocade" had excellent art accomplishment and represented distinctive features which can carry forward the national cultural and spirit deeply. If "Tujia brocade" patterns were applied to modern design, both sides would reach a win-win situation (Han & Han, 2015). As results of social development, cultural ecology revolution and values change, "Tujia brocade" gradually lost edge and got hit by foreign culture and mechanized production (Li & Zhu, 2016). In the past, the process of Chinese folk culture had three damaging shocks. The first shock was democratic reforms and socialist transformation around 1950. The second shock was the cultural evolution, and it bring a devastating blow to traditional culture. The third time because of modernized wave in the late 1980s (Huang, 2006). The problems in the development of "Tujia brocade" could be summarized as the following:

- The aging situation of craftsmen has been increasingly prominent and a lot of young people migrated to the city to work, the technique of "Tujia brocade" gradually fell into disuse and its rich language of art has been neglected.
- "Tujia brocade" products has become more and more homogeneous seriously in recent years. Most products on the market were still simple copy of traditional patterns, lacking of culture, aesthetics and novelty. It was hard for "Tujia brocade" products into the common life of the public. Some "Tujia brocade" products were made by experienced masters which could be long-term running, inefficient, expensive and small output, and these products could not meet the needs of consumers.
- The public has not been famous with the culture of "Tujia brocade". It originated from western human and has limited influence. Many features arts and culture characteristics of "Tujia brocade" has been somewhat unfulfilled. Furthermore, facing influx of foreign culture, the public's awareness and values tended to be recreational and consumptive. They were difficult to discern the intention behind patterns. "Tujia brocade" has been faced challenges of survival and development, it had to confront market and competition mechanism, figuring out its own business model and capturing consumer psychology (Li & Zhu, 2016).

1.4. The organization form of “Tujia brocade” patterns

After thousands of years of development, "Tujia brocade" continued to inherit and carry forward, and formed the more mature artistic organization(Hong, 2018). The organizations of the "Tujia brocade" patterns can be summarized into 16 kinds of basic frameworks (Figure 5). It is common to repeat basic shapes in accordance with the needs of the overall image in the frame line (Hu, 2008).

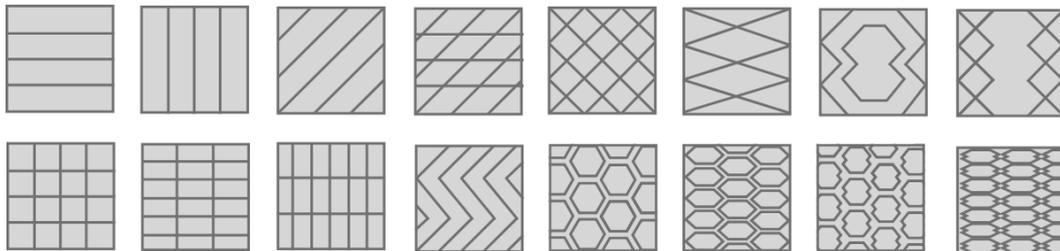


Figure 5. 16 kinds of basic frameworks of “Tujia brocade” patterns.

Source: *Research on the Art Symbol of Tujia Brocade*

1.5. The tourism cultural and creative products industry of “Tujia brocade”

“Tujia brocade” has significance and there is a compact relationship between “Tujia brocade” and regional tourism development. The development of tourism cultural and creative products are the significant strategic resources in tourism industry. The development of tourism products and “Tujia brocade” combined to increase the income of the ethnic areas, which is a win-win situation for both cultural and economic development. The tourism products may absorb more Chinese traditional cultural elements and the mutual understanding and cultural communication may be promoted. However, the tourism products come with some problems during the rapid development of tourism industry. The local selling products have high homogeneity, and the old style does not meet the aesthetic needs of consumers, so that many consumers are not willing to buy these existing “Tujia brocade” tourism products in the market (Shi & Zhang, 2018).

In the past, researches have focused on the cultural protection of “Tujia brocade”. Many local customs have been recorded, and the development of “Tujia brocade” were traced from ancient times until today by many researchers. The reasons for the differences of the patterns, production sites and designs of “Tujia brocade” (Huang, 2005). Some researchers protect the copyright of “Tujia brocade” by combining modern digital technology (Jun, 2011).

In recent years, the studies focus on the application of “Tujia brocade” on the basis of the existing records of the technology. The cultural elements of “Tujia brocade” were combined to the virtual human characters shaping in computer animation to help broadcast and develop the culture of “Tujia brocade”(Zhao, 2017). The elements of patterns have strong national intension and local characteristics also were applied in the home stay interior design (Zeng & Zhang, 2018). The structure and color of “Tujia brocade” were also interpreted, so that these understanding can be used in modern packaging design and “Tujia brocade” can be widely recognized(Zheng, 2018). Many other studies try to combine traditional elements of “Tujia brocade” into landscape design, advertising design, furniture design and other aspects.

Integrating traditional culture with everyday life is of great significance, so that people may be closer to the precious traditional culture of "Tujia brocade". However, if the data of consumers' preference can be collected before commercialization, the commodity orientation that conform to the specific crowds may improve the core competitiveness of "Tujia brocade" tourism products.

In this study, the questionnaire survey, the focus group, T-test and one-way ANOVA were used to analyze the differences in subjects' preferences for the patterns of "Tujia brocade" on the basis of the gender factor, design background factor and the residence factor. These study can provide reference for relevant manufacturers and designers to design more directional and stylish tourism products of "Tujia brocade" to quickly open market channel. Questionnaires were collected to investigate the preferences of different types of consumers for "Tujia brocade", so that customer's requirements at different levels can be satisfied.

2. Methods

2.1. Questionnaire Survey

Questionnaire survey is a method used by researchers to collect information. It is usually adapted to measure personal behavior and attitude. The tool of questionnaire survey are questionnaires which is the key element to understand the nature of the problem or to solve the problem, in particular for the measurement of structural variables. The researcher need to set questions into questionnaires, answering by mailing, answering online, answering in person and follow-up visiting to understand the subject's opinions on a phenomenon or question. The principles of designing questionnaires are as follow:

The question could be fully understood and not exceed the knowledge and ability of the interviewees; the questions need to meet the needs of study hypothesis and it can be able to trigger the true reflection of the respondents; Questions cannot vague, too broad, or include two or more concepts that easily lead to misunderstanding; Questions cannot involve social taboos and sensitive issues; The problems cannot produce a hint; Questions should be easy to record faithfully and analysis data, including coding and typing questionnaire data.

2.2. Likert Scale Survey

The Likert Scale created by psychologist Rensis Likert. The Likert scale is a psychological measurement scale commonly used for questionnaires. It is usually used to measure the subjective or objective judgment of a subject for a description which is describe the degree of agreement or disagreement.

The typical Likert scale survey divides the subjects' judgments into five categories: strongly disagree, disagree, no opinion, agree, and strongly agree. Some researchers will use more detailed assessment degrees, such as: seven or nine degrees of measurement. In addition, some researchers could force subjects to decide from two different tendencies (such as: satisfied, not satisfied). In general, the preparation of the Likert scale is as follows:

1. Draw up the statements associated with the attitude. These statements should reflect the positive and negative attitude of the individual (agree or disagree), and each statement should be measured by same level (five, seven, or nine levels).
2. According to of the tendency of the statement give different scores. For positive statements, the answer is more positive, the score of answer is higher. For negative statements, the answer is more negative, the score of answer is higher.

3. Select a number of respondents to join in the pretest. Researchers must pay attention to whether the statements in pretest are discriminative. If the subject gives the same answer to each question, the scale could not distinguish the difference.
4. Researchers can obtain the scores of these respondents and translate the answers of each statement into scores to understand subjects' attitudes. The Likert scale survey is easy to understand and convenient to use which become the most popular and most widely used scale in quantitative research.

2.3. Focus Group

The focus group was developed by Merton who was an expert of the institute of Applied Social Studies in Columbia University to analyze the ratings of radio programs in the 1940s. The audiences express the degree of affection for the show by the red, green two different buttons connected to the radio. Afterwards, advertising and marketing often use focus groups to investigate consumers' responses to product packaging.

In the focus group, six to twelve participants need to have free and interactive discussions on particular topics to collect in-depth and authentic opinions and ideas. This method has a variety of functions. when the research information is insufficient, the focus group method can be used to collect the opinions of the relevant personnel and help researchers clarify the possible research direction. In addition, researchers can correct the structure and content of questionnaires through focus group method to improve the relevance of the questionnaires.

If the results of analyzing survey data collected are inconsistent or unexplained, the possible answers can be made through focus group method. Finally, the focus group method can also be used to verify whether the findings are correct. If the results of the discussion are found to be in conflict with the finding which means it is necessary to re- examine the study. The focus group method must go through three stages of planning, discussion, analyzing.

There are three focal points during the planning phase. Firstly, it is appropriate to design less than six problems according to the purpose of the study. Secondly, the more extensive the research topic involved, the greater the number of group focus meetings. Thirdly, the focus group members had better have relevant knowledge or experience. Attention should be paid during the discussion stage. The host, recorder and assistant personnel should be indispensable. In addition to the traditional notes during recording, the recorder can use the tape recorder, camera and other auxiliary equipment. The focus group method has the characteristics of rapid collection of information which requires a small number of subjects and can access to in-depth information. Therefore, it is worthy for researchers considering to use.

2.4. One-way ANOVA

The One-way ANOVA analysis is a special form of statistical hypothesis which is proposed by R. A. Fisher. It can verify the significant of two or more samples at the same time, and thus are widely used in the analysis of experimental data. If the statistical results are significant (when the probability of p is less than the critical "significant value"), the null hypothesis can be reversed.

Statistical analysis hypothesis of variance analysis usually showed difference according to different models. However, broadly speaking, the variance analysis has a total of three assumptions:

- The group distribution behind each group of samples must be either a normal distribution or a normal distribution.
- Each group of samples must be independent.
- The number of variants of groups must be equal.

When the variance analysis results show statistically significant, it means that the average of the reaction variables is different from the given factors. Thus, the post-hoc test should be used to further explore the reasons for the average difference of the reaction variables. In the proceeding of development in post-hoc test statistics, there are a number of distinctive methods and still some new methods have been published. But the essence of computing are similar, amending the rise of the first type of error because of multiple comparison.

The more commonly used method are Bonferroni, Tukey, Duncan and Scheffé, and the remaining methods are listed below : Bonferroni T tests, Tukey's range test, Duncan's new multiple range test, Dunnett's two-tailed test, Dunnett's one-tailed test, Gabriel's multiple-comparison procedure, Levene's test, Waller-Duncan test, Ryan-Einot- Gabriel-Welsch multiple range test, Scheffé's multiple-comparison procedure, Student- Newman-Keuls multiple range test, Fisher's least-significant-difference test and Waller- Duncan K-ratio T test.

3. Results

A total of 67 “Tujia brocade” patterns were collected through the literature review, and these patterns were processed using different filters by Adobe Photoshop CS6 and converted to black and white. Six designers with more than three years of design experience were invited to classify the samples according to the “Tujia brocade” pattern organization (Figure 6). First, the 8 invalid samples from samples were removed. These invalid samples include repeated patterns and cannot be clearly distinguished patterns.



Figure 6. The scene of classifying the samples.

The remaining 59 samples were divided into nine types of patterns. There are the angle-missed hexagonal basic type pattern, the regular hexagonal basic type pattern, the rhombic basic type pattern, the organic basic type pattern, the totemic basic type pattern, the flat hexagonal basic type pattern, the polyhedral hexagonal basic type pattern, the regular octagonal basic type pattern and the continuous geometric basic type pattern.

Table 1 This is the nine samples

Sample one	Sample two	Sample three	Sample four	Sample five
The angle-missed hexagonal basic type pattern	The regular hexagonal basic type pattern	The rhombic basic type pattern	The organic basic type pattern	The totemic basic type pattern
				
Sample six	Sample seven	Sample eight	Sample nine	
The flat hexagonal basic type pattern	The polyhedral hexagonal basic type pattern	The regular octagonal basic type pattern	The continuous geometric basic type pattern	
				

Six designers with more than three years of design experience were invited to select the most representative sample of each category through the focus group. A total of nine samples were selected (Table 1). 147 adjectives describing "Tujia brocade" patterns were collected through literature and books. Then 20 vocabularies are chosen through the focus group. These vocabularies were used in the design of questionnaires (Table 2).

Table 2 This is the table of 20 vocabularies

1. regional--public	2. continuous--interruptible
3. traditional--contemporary	4. geometric—curvilinear
5. serious--lively	6. regular—wild

1. regional--public	2. continuous--interruptible
7. decorative--simple	8. free--constrained
9. complex--concise	10. abundant--single
11. elegant--heroic	12. quiet--fretful
13. balanced--unbalanced	14. mysterious--open
15. unique--ordinary	16. soft--masculine
17. dedicate--rough	18. religious--secular
19. metaphorical--distinct	20. aesthetic--ugly

The questionnaires can be divided into two stages. In the first stage, participants needed to fill in the basic data, including gender, age, place of residence, educational background, whether own the design background. In the second phase, subjects were required to choose the imagery and preference degree of 20 pairs of adjective vocabularies to nine "Tujia brocade" samples they considered according to seven-point Likert scale. The evaluation scale is divided into seven points respectively. Taking regional--public as an example, the closer the imagery of a "Tujia brocade" sample is to regional, the lower points the sample get. Reversely, the closer the imagery of a "Tujia brocade" sample is to public, the higher points the sample achieve and there is no obvious bias if the scores of subjects are near four points.

The scale of the preference score has strongly dislike, a little dislike, in general, a little like and like. The scale can be converted into seven-point level, which are 1-point, 2-point, 3-point, 4-point, 5-point, 6-point and 7-point respectively. Therefore, 1-point, 2-point and 3-point mean that the preference of the sample may be biased towards dislike. The intensity of 1-point is greater than 2-point. The intensity of 2-point is greater than 3-point. On the contrary, 5-point, 6-point and 7-point represent the preference of subjects could be partial to like. The total number of valid questionnaires were 54. Figure 7 shows the overall distribution of the subjects.

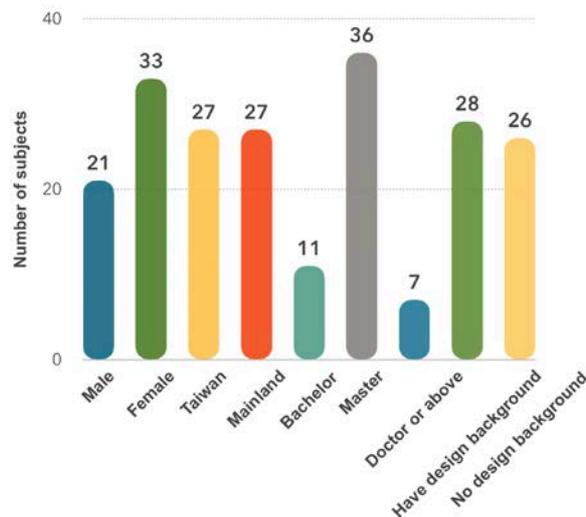


Figure 7. The overall distribution of the subjects.

A total of 27 subjects come from Taiwan and the others come from Chinese mainland. There

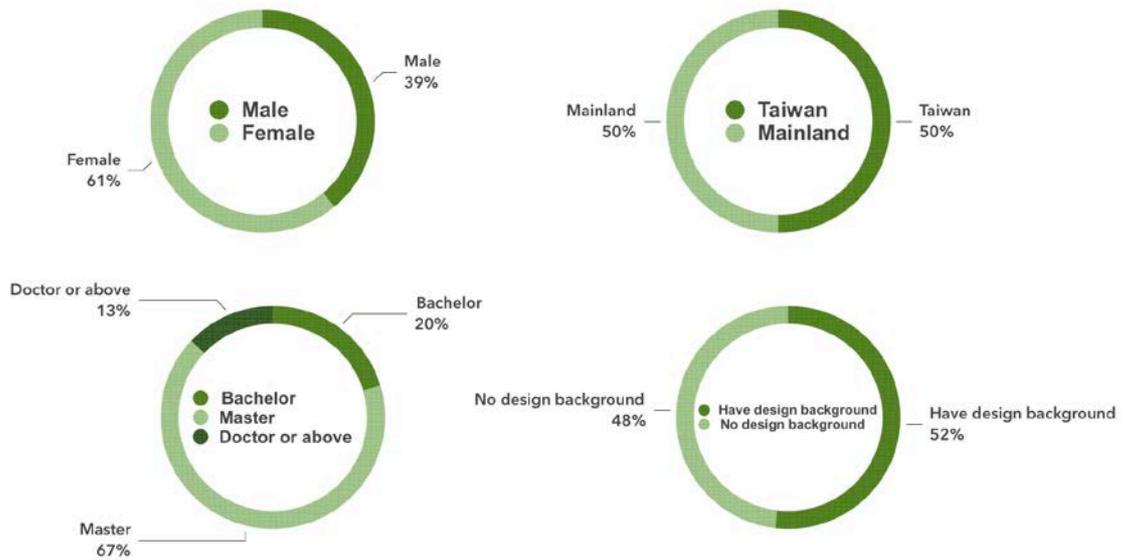


Figure 8. The distribution of gender, residence, education background and design background.

are 11 undergraduate students, 36 graduate students and 7 doctoral students submitted the questionnaires. These subjects include 28 designers and 26 people with no design background (Figure 8).

The study conducted mainly based on SPSS 10 statistical software. The imagery and preference degree of "Tujia brocade" samples in 20 pairs adjective vocabularies were analyzed according to independent t-test and one-way ANOVA (Figure 9).

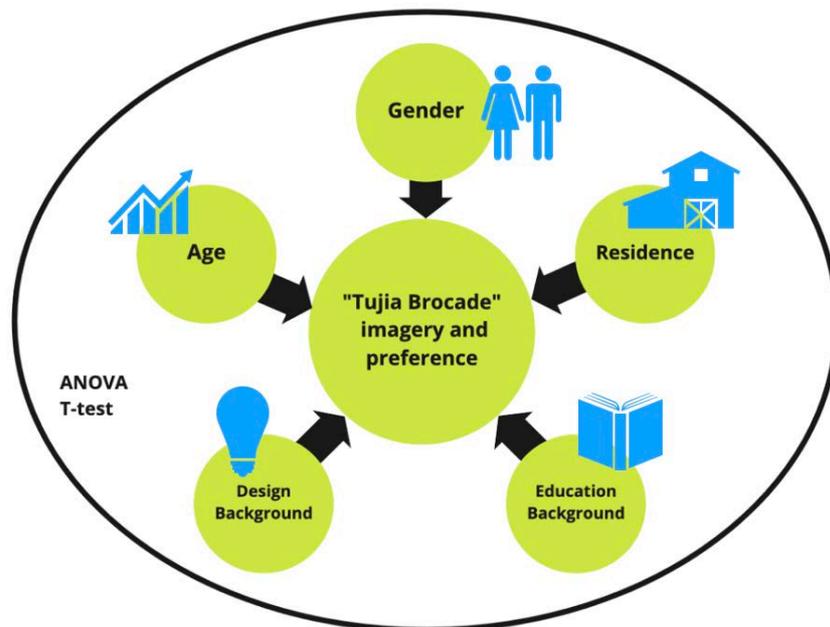


Figure 9. The research framework.

3.1. The influence of the gender factor on the imagery of "Tujia brocade" patterns

The study examined the differences of the factor of gender on the imagery of "Tujia brocade" patterns through the independent t-test. The research took $p < 0.05$ as a significant standard. There were 21 males and 33 females of all 54 subjects.

Three groups of vocabularies had significant differences, respectively were the vocabulary groups "complex—concise" and "aesthetic—ugly" of sample three and the vocabulary group "geometric—curvilinear" of sample seven. The different genders had small difference in the imagery of other vocabulary groups .

Taking the sample three as an example, there was significant difference between male and female subjects in the imagery of "complex" and "concise". The significance of the variance test is $p = .004 < .05$ (Table 3). It found that men were more likely to think that sample three was bias towards "concise" and "aesthetic" than women. For sample seven, women were more tend to the imagery of "curvilinear" than men.

Table 3 This is the result of independent t-test.

	Vocabulary		F	Significant	t	df	p	Mean difference	Standard error difference	Lower bound	Upper bound
	Complete	Assume equal variance	9.159	0.004	1.82	52	0.074	0.89177	0.4899	-0.09129	1.87484
	Concise	Do not assume equal variance			2.065	50.807	0.044	0.89177	0.43185	0.02472	1.75883
	Male										1.27
	Female										0.44
	Aesthetic	Assume equal variance	0.125	0.725	-2.102	52	0.04	0.71861	0.34181	-1.4045	-0.03273

Table 4 This is the result of independent t-test.

		Levene test								95% confidence interval	
		F	Significant	t	df	p	Mean difference	Standard error difference	Lower bound	Upper bound	
Sample 3 preference	Assume equal variance	0.845	0.362	2.382	52	0.021	0.89177	0.37431	-0.09129	1.87484	
	Do not assume equal variance			2.446	46.353	0.018	0.89177	0.36459	0.15805	1.62550	
	Male									0.68	
	Female									-0.24	
Sample 9 preference	Assume equal variance	1.123	0.294	2.343	52	0.023	0.97403	0.41571	0.13984	1.80821	
	Do not assume equal variance			2.453	48.738	0.018	0.97403	0.3971	0.17591	1.77214	
	Male									-0.86	
	Female									-0.15	

3.3. The influence of the residence factor on the preference of "Tujia brocade"

The results showed that the preference significance of the sample two was 0.018 (Table 5). The sample two contained the traditional pattern called "cat footprints". Because the Tujia people have the worship to white tiger since the ancient times. The white tiger can determine who lives and who dies and it also could punish the wicked, so that the white tiger has been the god of brave in Tujia people's minds until now. The pattern of "cat footprints" was the simplification of the white tiger. If some subjects had a certain understanding of its culture, their preferences could be influenced.

Table 5 This is the result of one-way ANOVA.

		Levene test							95% confidence interval		
		F	Significant	t	df	p	Mean difference	Standard error difference	Lower bound	Upper bound	
Sample 2 preference	Assume equal variance	0.129	0.721	-2.439	52	0.018	-0.74074	0.30368	1.35012	0.13136	
	Do not assume equal variance			-2.439	51.856	0.018	-0.74074	0.30368	1.35017	0.13132	
	Male									0.91	
	Female									0.74	

4. Discussion

4.1. The influence of the gender factor on the imagery of "Tujia brocade"

There were 21 males and 33 females of all 54 subjects. The image of three groups of vocabulary had significant differences ("complex—concise" and "aesthetic—ugly" of sample three; the vocabulary group "geometric—curvilinear" of sample seven). It found that men were more likely to think sample three was bias towards concise and aesthetic than women. And for sample seven, women were tend to the imagery of curvilinear. The internal of sample three appears repeated smaller rhombuses, obvious color contrast and twill arrangement. From females' sensitive and dedicate point of view, more details of the patterns would be observed. Female subjects may mostly focus on the internal repeated floral elements of sample seven and male subjects could pay more attention to the overall feelings.

4.2. The influence of the gender factor on the preference of "Tujia brocade"

Male subjects were more likely to have a tendency to concise and powerful patterns, and female subjects may prefer soft and decorative patterns. The imagery of sample three and sample nine were all biased towards the following vocabularies: public, continuous, geometric, regular, concise, single, quiet, balanced, open, ordinary, masculine, secular, distinct and aesthetic. Male subjects may have more affection to patterns with the above adjective characteristics.

4.3. The influence of the residence factor on the preference of "Tujia brocade"

This study explored the influence of the residence factor on the preferences of "Tujia brocade" patterns. The results showed that the significance of the sample two was 0.18. If some subjects had a certain understanding of its culture, their preferences could be influenced.

The study focused on providing designers and sellers with reference, so that the designers, artists and manufacturers to have a better understanding of consumer psychology and to increase connection between designers and market. Then "Tujia brocade" will improve the market competitiveness and complete the transformation of traditional industries.

5. References

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