Correlation Analysis for the Inheritance Pathways of Inlaid Porcelain Techniques under Rural Revitalization: Case Study of Chaoshan Region, China

**Abstract:** Rural revitalization is essential for achieving the goals of a modern country, with culture serving as both a spiritual pillar and core competitive strength. This study focuses on the inheritance of the intangible cultural heritage of inlaid porcelain techniques in the Chaoshan region. Using Pearson and Kendall correlation analyses, this research investigates the inheritance pathways and related factors in Chaoshan, supported by literature reviews, field surveys, and interviews. Further, this study delves into the challenges and opportunities faced in the transmission of inlaid porcelain techniques and explores effective inheritance pathways to ensure their sustainable development. The findings indicate strong correlations between the transmission of inlaid porcelain techniques and modern educational training, economic factors, public awareness of intangible cultural heritage, challenges of modernization and changing times, familial inheritance methods, cultural protection, and intellectual property rights. Strengthening the training of artisans is crucial for the preservation of inlaid porcelain craftsmanship, and integrating traditional craftsmanship with modern business practices is crucial for promoting rural economic development and transmission of traditional culture. This research provides empirical evidence for cultural revitalization in rural settings, emphasizing that the protection and development of intangible cultural heritage should align with modernization efforts to ensure the sustainable transmission of this valuable cultural heritage. The study findings offer valuable insights for policy formulation and practice, facilitating cultural innovation and integration of traditional lifestyles in rural areas.

**Keywords:** Rural Revitalization, Intangible Cultural Heritage, Inlaid Porcelain Technique Transmission, Correlation Analysis, Chaoshan Region.

#### I. INTRODUCTION

The strategy of rural revitalization is a critical component of the overall layout of China's socio-economic development framework. Cultural revitalization in rural areas aims to inherit and promote intangible cultural heritage, preserve rural cultural traditions, and enhance cultural prosperity. Intangible cultural heritage, encompassing various traditional crafts, folk arts, music, and dance, forms a crucial part of rural culture. The Chaoshan region, known for its distinctive cultural heritage in southern China, is rich in history and cultural narratives, making it a unique cultural repository. Among the myriad elements of Chaoshan's cultural tapestry, the inlaid porcelain technique shines as a brilliant cultural legacy. Inlaid porcelain involves the delicate art of embedding small porcelain pieces into the surfaces of objects, a craft that not only reflects the Chaoshan people's unique aesthetic pursuit, but also their mastery of intricate craftsmanship.

As a representative of traditional handicrafts, the inlaid porcelain technique has garnered widespread attention. In recent years, the continuity of this craft has faced several challenges, such as the decreasing number of young inheritors, risking the loss of this traditional artform. Therefore, addressing the effective protection and transmission of inlaid porcelain technique has become an urgent issue. This study specifically examines the inlaid porcelain techniques of the Chaoshan region owing to its unique cultural traditions. Market demands for rapid production and cheaper products have led to a decline in the market position of traditional crafts, complicating the transmission of traditional skills. Additionally, the long learning and practice period...
required for mastering inlaid porcelain has led to dwindling interest among the younger generation. During in-depth interviews, artisans commonly expressed concerns over the transmission of their craft. Moreover, the impact of modern techniques poses a risk of obsolescence for some traditional crafts. Field investigations have revealed that the majority of inlaid porcelain workshops in Chaoshan are generally small-scale and located in old city areas. This reflects both a decline in market demand and decreasing number of younger artisans. The market for traditional crafts has also depressed, with some even ceasing production altogether.

Inlaid porcelain, as a distinctive traditional craft of the Chaoshan region, carries immense cultural and historical value. Its transmission is not only a continuation of Chaoshan cultural traditions, but also plays a significant role in the economic and social development of the area. Under the broad framework of rural revitalization, the transmission of the intangible cultural heritage of inlaid porcelain is particularly crucial because it signifies both cultural continuity and sustainable regional economic and social development. This study, therefore, focuses on the Chaoshan region from a sociological perspective, analyzing the transmission pathways of inlaid porcelain techniques and their correlation with various influencing factors. By selecting case studies from Chaozhou, Puning, and Shantou—three traditional inlaid porcelain lineages—this research uses Pearson and Kendall correlation analyses to explore the similarities and differences in the contemporary revival of traditional arts, educational support, and policy frameworks across these areas, and how these factors collectively impact the transmission of inlaid porcelain craftsmanship. Through this analysis, the study aims to propose effective transmission pathways and relevant policy recommendations to support the revitalization of rural culture and sustainable transmission of intangible cultural heritage. This not only helps to protect and promote the treasures of Chinese traditional culture, but also fosters harmonious development between local culture and the economy.

II. LITERATURE REVIEW

Rural revitalization is a major strategic task in contemporary China. Inlaid porcelain, a category of national-level intangible cultural heritage from the Chaoshan region, possesses multifaceted values in both technology and artistic aesthetics. It plays a significant role in the inheritance of local culture and customs in the Chaoshan region. Its considerable potential in the practice of rural revitalization cannot be overlooked. The academic community has extensively explored the artistic value and craftsmanship of inlaid porcelain as well as the relationship between rural revitalization strategies and intangible cultural heritages like inlaid porcelain, laying a solid theoretical foundation for further research on the inheritance pathways of the intangible cultural heritage of inlaid porcelain in the context of rural revitalization.

Since the proposal of the rural revitalization strategy, there has been a surge in related academic research. Inheriting, developing, and enhancing outstanding traditional cultures is a crucial topic for rural revitalization [1]. Scholars have conducted analyses of rural development experiences and lessons of Japan and South Korea [2]. Considering the current opportunities in China's rural development, they suggest starting from the development of spiritual civilization and other aspects to explore a path of rural revitalization that aligns with China's national conditions. In the development of rural spiritual civilization, intangible cultural heritage is an important carrier and main manifestation of rural characteristic cultural inheritance practices, playing a pivotal role in rural revitalization [3]. It represents the living history of a nation, and its multifaceted values are bound to generate more social and economic benefits in rural revitalization. Since the United Nations passed the "Convention for the Safeguarding of the Intangible Cultural Heritage" in 2003 (which came into effect on April 20, 2006), China has actively engaged in the practice of protecting intangible cultural heritage. In 2005, the Uighur Muqam art of China was among the first to be listed in the third batch of "Masterpieces of the Oral and Intangible Heritage of Humanity" [4]. During Mao Zedong's expedition to the north and south of the Tianshan Mountains, it was found that the North-West Region had made successful explorations in the inheritance of intangible cultural heritage [5]. They have progressed and developed traditional arts like Muqam through higher art institutions. Since then, China's intangible cultural heritage protection efforts have been robustly advanced. In recent years, scholars have summarized the internal development law of "re-integrating intangible heritage into life" [6], emphasizing that a complete system of intangible heritage inheritance and protection must center around the knowledge and practices of inheritors, maintain a living state of integral physical and mental inheritance, integrate modern technology and creative thinking, and connect government, community, market, and academia [7].
Inlaid porcelain (Figure1), commonly known as "kou rao," "tie rao," or "jian nian," together with gold lacquer wood carving and stone carving, forms the "full, complex, and intense" style characteristics of Chaoshan architectural decorations [8]. Its bright and intense colors, as well as freehand and fluid expression techniques, also reflect the characteristics of the Chaoshan culture [9]. Existing literature has explored inlaid porcelain considering artistic characteristics, humanistic value, architectural decoration, craftsmanship, and the protection and development of inlaid porcelain. Studies indicate that the forms and techniques of inlaid porcelain possess regional adaptability to natural conditions and resources [10]. They merge various Chaoshan folk arts, showcasing regional characteristics of folk crafts under the influence of marine and folk cultures. Inlaid porcelain originally had three main inheritance lineages, led by Wu Dancheng from Chaoyang, He Xiangyun from Puning, and Su Baolou from Chaoshou [11], but the current status of inheritance in these areas is concerning. Inheritance is the core of intangible cultural heritage protection. Current data indicate that few scholars have researched from the perspective of inlaid porcelain intangible heritage inheritance, and the texture beauty of inlaid porcelain [12]. Yin Jianqiang and Lin Tao analyze the relationship between the ontology of inlaid porcelain and psychological schemas and spatial schemas from the aspects of decorative patterns and plastic arts, revealing the current development status of inlaid porcelain art and the means of its future inheritance [13]. As a national-level intangible cultural heritage, in the context of the state's vigorous promotion of the propagation and inheritance of outstanding rural traditional cultures and rural revitalization, systematic research on the inheritance pathways of inlaid porcelain is particularly urgent. This is key to advancing the work on intangible cultural heritage protection and has significant theoretical and practical significance for realizing the modern transformation and long-term sustainable development of the functions and values of inlaid porcelain intangible heritage.

III. RESEARCH METHODOLOGY AND CASE SELECTION

To explore the relationships between variables within the intangible cultural heritage inheritance pathways of inlaid porcelain, this study employed both Pearson and Kendall correlation analyses. Pearson correlation analysis is utilized to assess the linear relationships between continuous variables, with its correlation coefficient (Pearson's r) ranging from -1 to +1, where +1 indicates a perfect positive correlation, -1 indicates a perfect negative correlation, and 0 signifies no linear relationship [14]. This method assumes that the data follow a normal distribution, making it suitable for exploring cases where two variables change in the same direction in response to a third variable. Conversely, Kendall’s rank correlation coefficient (Kendall's τ) is used for analyzing nonlinear relationships and skewed data [15]. It is a non-parametric method with high robustness to outliers. Kendall’s τ also ranges from -1 to +1, with similar interpretations for its values. It measures correlation by comparing the rank data of two variables; thus, it is not sensitive to the assumption of normal
distribution. The use of these two methods enables a comprehensive analysis of the correlations between variables in the inheritance pathways of inlaid porcelain, regardless of whether the relationships are linear or non-linear.

The Chaoshan region, recognized as the birthplace and main inheritance area of inlaid porcelain craftsmanship within the Guangdong Province, holds unique significance, particularly under the context of rural revitalization and inheritance of intangible cultural heritage. To enhance the robustness of analysis, three lineage systems that exhibit significant differences in contemporary revival, education, and policy support were selected as case studies. These cases are located in Chaohzou, Puning, and Shantou, each displaying different aspects of inlaid porcelain craftsmanship inheritance, while also reflecting the response of rural revitalization to regional economic and social development. This study aims to explore whether these areas share a common set of effective inheritance pathways and assess the explanatory power of these pathways in the context of craftsmanship transmission. Specifically, the study focuses on three typical inlaid porcelain inheritance lineages to reveal the shared logic between rural revitalization and craftsmanship inheritance.

In July 2023, this study was conducted by field research in Puning, Daliao Village of Shantou, and Chaohzou Inlaid Porcelain Museum, Guangdong Province. Through interviews and collection of 200 questionnaires, combined with relevant theories and both Pearson and Kendall correlation analysis methods, this study aims to gain a comprehensive understanding of the inheritance pathways of inlaid porcelain craftsmanship.

IV. CURRENT STATE OF INLAID PORCELAIN TECHNIQUE TRANSMISSION

A. Contemporary Revival of Traditional Art of Inlaid Porcelain

1) Humanistic legend of inlaid porcelain technique

The transmission of the Chaohzou-Shantou (Chaoshan) inlaid porcelain craftsmanship can be traced back hundreds of years, with traces found in ancient temples, palaces, and private collections. These works are not only meticulous in craftsmanship, but also exhibit a sublime level of artistic expression. The production process of inlaid porcelain requires detailed design, cutting of porcelain pieces, and inlaying, each step demanding the artisan's patience and skill. In traditional handicraft workshops in Chaoshan, elderly masters often pour their hearts into each piece, with their meticulous carving and exquisite inlaid porcelain technique bringing these objects to life, narrating stories of the years gone by. The themes of Chaoshan inlaid porcelain encompass a rich cultural connotation, from religious beliefs and folk legends to various aspects of daily life. For example, in temple decorations, the inlaid porcelain technique is often used in the production of religious ceremonial items, not only in form, but also as a profound expression of faith.

The inlaid porcelain technique is also widely applied in Chaoshan families, from teapots and vases to dinnerware, all reflecting the Chaoshan people's pursuit of life quality. These objects, through the inlaid porcelain technique, become not only practical tools for daily life, but also a perfect combination of art and utility, showcasing the Chaoshan people's unique understanding of life. The transmission of Chaoshan inlaid porcelain craftsmanship is not an overnight achievement; it carries a long history and cultural essence. In modern society, although mechanized production has gradually replaced some of the manual processes, the Chaoshan inlaid porcelain craftsmanship still maintains its vitality in some traditional handicraft workshops. Some people who love traditional culture also strive to protect and promote this ancient craft through learning and transmission.

From a humanistic perspective, the survival and continuation of the inlaid porcelain technique in the Chaoshan region are inseparable from the Chaoshan people's unity, sense of justice, and strong clan consciousness. As leading figures (Figure 2) in the inlaid porcelain industry, inheritors from Puning, Daliao, and Chaohzou have not engaged in commercial wars for greater dominance, which is undoubtedly related to the unique cultural value, high learning difficulty, and small size of the community involved in this niche craft, which is even facing the risk of extinction. Besides the Chaoshan region, it is indeed difficult to find a region with three generations of inlaid porcelain families. When asked if he was aware of other inlaid porcelain schools in the Chaoshan region, Mr. Xu Shaopeng, an inheritor of Daliao inlaid porcelain, mentioned:

"It's in the Shantou area, as well as in Chaohzou and Jieyang. Because each school is different, their methods are different." (Interview date: July 8, 2023)
It's clear he is knowledgeable about other schools, and even though the market in the Chaoshan region is not large, it can support three major and several smaller workshops, they must have gradually established their respective scopes of work during the development of inlaid porcelain, which further illustrates that Chaoshan's humanistic history is a crucial factor for the craft's transmission. Overall, as a part of humanistic legend, Chaoshan inlaid porcelain craftsmanship is not only a treasure of the Chaoshan culture, but also a splendid chapter of traditional Chinese craftsmanship. Through its unique expression, the Chaoshan people's understanding of beauty, love for life, and commitment to the transmission of traditional culture are vividly displayed, adding a brilliant cultural hue to this land.

2) Family heritage

The art of inlaid porcelain, carried through generations within families, embodies the cultural essence of generational transmission, particularly notable in the Chaoshan region. Initially, the transmission of inlaid porcelain skills typically began with the family elders. These seniors, possessing a wealth of experience and profound craftsmanship, regard the art of inlaid porcelain as a familial tradition and precious cultural heritage. From a young age, they begin instructing the younger family members, imparting the essence of inlaid porcelain skills and nurturing the next generation of inheritors. Furthermore, learning the art of inlaid porcelain is a long-term and continuous process. The familial transmission of inlaid porcelain skills requires patience, perseverance, and extended practice. The younger generation, through apprenticeship in workshops and active participation in every step, from cutting porcelain pieces to inlaying, gradually comprehends and masters this complex and unique craft. In this process, masters often convey the intricacies of the craft through both words and personal examples.

The family transmission of inlaid porcelain skills is not merely a transfer of techniques, but also a heritage of cultural identity. Within a family, the art of inlaid porcelain is often accompanied by the family’s history and traditional stories. The learning process of this traditional craft is not only a transmission of skills, but also a conveyance and promotion of family culture. The familial transmission of inlaid porcelain skills also reflects a form of family cohesion in practice. This cohesion is manifested in cooperative work, with a shared passion for inlaid porcelain art and collective sense of responsibility for family traditions. In modern society, despite some market challenges faced by inlaid porcelain art, this traditional craft continues to be passed down and developed within families through familial transmission, which serves as a guardian of traditional culture and commitment to the future.

From a familial perspective, the transmission of inlaid porcelain skills typically occurs within a family, and masters also take apprentices to pass on their skills. In our interviews, the inheritors mentioned that their grandfathers were disciples of the same master before developing their paths. Of course, successors are also sought within the family, but with economic development and changing perceptions, people are less willing to invest considerable time and effort in exploring and researching this time-consuming intangible cultural heritage. This presents a dilemma for the transmission of skills. When we asked Chen Weijing, an inheritor of Puning inlaid porcelain, whether he would pass on the skills to the next generation, he responded:

"If he is interested, that would be better, but I won't force him. It's best he does what he likes" (Interview date: July 7, 2023).
Considering that masters generally have reservations about teaching outsiders, family-based transmission ensures the stability and integrity of skill transfer.

3) Collective support for the heritage of inlaid porcelain techniques across regions and schools

The collective support for the heritage of inlaid porcelain across various regions and schools paints a magnificent picture of collaborative diversity. With its unique cultural value and craft charm, the art of inlaid porcelain attracts individuals from different regions and schools to devote themselves to the heritage and development of this traditional craft. First, cooperation between different regions provides a broad platform for the heritage of inlaid porcelain. The cultural traditions and historical backgrounds of different regions are distinctive, and through collaborative exchanges, the art of inlaid porcelain can integrate the strengths of various sources, forming a more diverse tradition. For instance, inheritors from the Chaoshan region might interact with craftsmen from other regions to learn new techniques, enriching their traditional style.

Second, the integration of different schools brings more innovative strength to the heritage of inlaid porcelain. Collaboration between various schools allows the art of inlaid porcelain to maintain its vitality through innovation. For example, schools that advocate modern design might cooperate with those focusing on traditional aesthetics. By integrating modern elements with traditional techniques, they can create unique inlaid porcelain artworks that meet contemporary aesthetic needs without losing the essence of traditional culture.

Moreover, the cooperation between different regions and schools opens up more possibilities for the market promotion of inlaid porcelain art. Through joint efforts, the influence of inlaid porcelain products can be expanded, enabling them to reach international stages beyond their local origins. Integrating market networks and sales channels from different regions can enhance the competitiveness of inlaid porcelain art in the market. In the process of collectively supporting inlaid porcelain heritage, establishing an open mechanism of cooperation is crucial. This mechanism encourages information sharing and skill exchange between different regions and schools, fostering mutual promotion and joint development. Organizing inlaid porcelain art exhibitions and traditional handicraft exchange events are effective means to promote this mechanism. This process of mutual learning and comparison can broaden perspectives, inspire creativity, and drive innovation in inlaid porcelain technologies within a diverse cultural environment. This cooperation also promotes the innovation and inheritance of inlaid porcelain technologies, granting it new vitality and charm.

For instance, Mr. Xu Shaopeng, an inlaid porcelain inheritor from Shantou, mentioned:

"I have participated in inlaid porcelain activities in overseas. The inlaid porcelain there was developed by masters from the Chaoshan region who brought the technology to overseas. However, the technique in overseas changes periodically; initially, it was inlaid porcelain, but in recent years, they have switched to using glass, calling it 'glass inlay’" (Interview date: July 8, 2023).

Similarly, Mr. Chen Weiqing, an inlaid porcelain inheritor from Puning, said:

"In terms of cross-cultural aspects, there has been cooperation with others to complete projects. As mentioned earlier, in places like Malaysia, they are mainly tracing their roots, looking for more works left by their ancestors. Unfortunately, many were destroyed during the Cultural Revolution. They are actually looking for their roots, so there might be less technical exchange, but it still exists. Because in overseas, they use a lot of glass, the technique is the same, but the materials differ” (Interview date: July 7, 2023).

Inlaid porcelain inheritors from Chaoshou and Puning have had exchanges, as Mr. Lu Boxin from Chaoshou mentioned:

"A few years ago, a master from Puning came to Chaoshou, and the style they did in Puning was different. There are differences between Chaoshou and Puning's inlaid porcelain, but we can't say one is bad; they are just different styles. We noticed that Puning's inlay doesn't emphasize lines as much, whereas Chaoshou aims to make the inlay 'come alive', showing folds like those of clothes. Puning uses large pieces of inlay and then draws lines on top of the porcelain pieces, resulting in a different emergence. The art has some differences, but there's a lot in Puning's inlay that we can learn from, regardless of what their works are, there are definitely good aspects that we can incorporate. So, the key to inlaid porcelain technique lies in individual expression, because different regions or even different technicians in the same area will have their unique characteristics” (Interview date: July 10, 2023).

Based on our interviews with inlaid porcelain inheritors, it is clear that there is an exchange and learning between different schools. Major schools interact and learn from each other, collectively contributing to the heritage of the intangible cultural heritage of inlaid porcelain, thus safeguarding its continuation. Through cooperation, the art of inlaid porcelain continually evolves within the currents of time, injecting new vitality into this ancient and precious traditional craft. This model of diverse cooperation not only aids in the continual
improvement of the inheritors’ skills, but also creates more favorable conditions for more people to understand, love, and pass on the art of inlaid porcelain.

B. Path of the Heritage of Inlaid Porcelain Techniques under the Support of Education and Policies: Innovation and Development

1) Introduction of inlaid porcelain art into school curriculums

The integration of traditional inlaid porcelain techniques with modern education enriches the curriculum of schools and offers students the opportunity to personally experience intangible cultural heritage. This innovative educational model aids in the preservation of traditional crafts while stimulating student interest in art and cultural traditions, fostering their creativity and hands-on skills. First, introducing traditional inlaid porcelain techniques into school curriculums enriches the subject matter. Incorporating it into the curriculum provides students with a new avenue to explore the Chinese traditional culture. While learning about inlaid porcelain techniques, students also become familiar with its historical origins and cultural significance, facilitating a more comprehensive and in-depth transmission of traditional culture within the academic setting. Second, integrating inlaid porcelain education with modern teaching methods enhances students' understanding and mastery of the craft. Through digital technologies and virtual reality, the craft process of inlaid porcelain can be vividly presented in the classroom, allowing students to understand in a more tangible and intuitive manner. Moreover, modern educational philosophies advocate for combining inlaid porcelain techniques with other disciplines, offering students an interdisciplinary knowledge experience through practice. Additionally, introducing inlaid porcelain techniques helps in developing students' manual skills and creativity. Traditional crafts often require intricate manual skills; through the process of learning inlaid porcelain, students engage in hands-on experiences such as cutting and inlaying, which enhances their manual dexterity. Similarly, the creative aspect of inlaid porcelain encourages students to use their imagination to design their artworks, promoting the development of their creativity.

Incorporating it into modern education and training systems can enhance the efficiency and quality of skill transmission. By acquiring knowledge in traditional inlaid porcelain techniques, modern craftsmanship, and educational management concepts, individuals can learn traditional crafts more effectively and ensure the continuation of inlaid porcelain heritage. Concrete progress has already been made in integrating inlaid porcelain with education, as Mr. Xu Shaopeng, an inlaid porcelain inheritor from Shantou, mentioned:

"Now, there's integration of inlaid porcelain with education, including in Shantou Technical College. Even in Daliao Primary School, students from grades three to six possess excellent skills in porcelain cutting, thanks to regular training at our base. Students genuinely learn, and teachers introduce them to the inlaid porcelain culture from a young age, especially since Daliao is the birthplace of inlaid porcelain. It’s essential that some young people from our hometown learn this craft” (Interview date: July 8, 2023).

Combining traditional inlaid porcelain techniques with modern education not only aids in the craft’s transmission and development, but also provides students with a novel learning experience. Such educational models cultivate students' manual skills and creativity and inject new vitality into the transmission of Chinese traditional culture, allowing inlaid porcelain technologies to better integrate into the contemporary society. Mr. Lu Boxin, an inlaid porcelain inheritor from Chaozhou, also noted:

"Classes have been held; for instance, a few years ago at Jinshi High School in Xiamen, we went to the school to teach students about inlaid porcelain, with some teachers bringing students here for firsthand experience” (Interview date: July 10, 2023).

Additionally, the government has intensified its support for the training of inlaid porcelain talents. By establishing specialized technical schools, workshops, and training programs, systematic inlaid porcelain training is provided to cultivate more professionals. The government also encourages higher education institutions to collaborate with inlaid porcelain inheritors to offer related courses, providing students with deeper learning and practical opportunities in inlaid porcelain techniques. Such policy support is instrumental in nurturing talents for heritage, ensuring a more sustainable development of inlaid porcelain transmission. Such policy support helps the training of inherited talents and ensures a more sustainable development of the inheritance of inlaid porcelain technologies.

2) Governmental policy support for the heritage of inlaid porcelain techniques

Governmental policy support is a key driver in promoting the heritage of inlaid porcelain techniques. The government provides a solid foundation for the transmission of this craft by offering support in various areas, including cultural preservation, industrial development, and talent cultivation. Initially, the government, by
ratifying relevant cultural policies, has included inlaid porcelain techniques in the list of intangible cultural heritage, conferring legal recognition and financial backing for their conservation. This measure elevates the status placed on the preservation of inlaid porcelain techniques and offers assurance to related inheritors. Through the establishment of dedicated funds for the protection and heritage of inlaid porcelain techniques, the government supports the development of related research institutions, craftsmen, and artisanal enterprises. Such policy measures offer financial support while imbuing the heritage of inlaid porcelain techniques with cultural identity and societal value.

Moreover, the government actively guides industrial development, formulating development plans to support market expansion and product promotion for inlaid porcelain techniques. By supporting traditional handicraft enterprises and encouraging their participation in domestic and international exhibitions and exchange activities, the competitiveness of inlaid porcelain in the market is enhanced. Furthermore, the government has increased its procurement of handicrafts, providing more market opportunities for inlaid porcelain inheritors through government purchasing.

Inlaid porcelain, as a traditional craft with a long history, plays a vital role in the heritage and development of our country's cultural heritage. The government emphasizes enhancing backup for the heritage of inlaid porcelain techniques through legal regulations and policy frameworks, establishing a more comprehensive system based on this foundation. During this research, a recent visit to Daliao Village in Chengtian Town, Chaonan District, Shantou City, provided valuable insights into local efforts to preserve this heritage. As mentioned by an interviewee, a member of the work team from Shenzhen city assisting Shantou,

"Our vision for the future is to develop Daliao as an ancient cultural village and establish it as a hub for intangible cultural heritage. Given Daliao's unique association with inlaid porcelain, we aim to create an 'Inlaid Porcelain Cultural Village'" (Interview date: July 8, 2023).

The interview with the work team member indicates that the government of Chengtian Town highly values the support for the heritage of inlaid porcelain techniques in Daliao Village, creating an inlaid porcelain intangible cultural heritage village. Currently, Daliao Village has a relatively complete inlaid porcelain culture village system, including inlaid porcelain artisan communities, galleries for inlaid porcelain works, production bases, experience and training bases, and tourist routes. Additionally, the government's emphasis and substantial support have significantly aided the heritage of inlaid porcelain. In summary, the government's proactive stance and robust policy support have provided solid assurance for the heritage of inlaid porcelain techniques. The formulation and implementation of this series of policies have offered more robust support and encouragement to the inheritors of inlaid porcelain techniques, fostering the vibrant development of this intangible cultural heritage. The government's involvement offers cultural support and promotes the comprehensive development of the inlaid porcelain heritage in economic, educational, and other fields.

C. Challenges and Dilemmas in the Heritage of Inlaid Porcelain Techniques

1) Challenges in the heritage of inlaid porcelain techniques

As a longstanding traditional craft with deep cultural roots, inlaid porcelain techniques are confronted with a series of challenges in their transmission. These challenges stem from various aspects such as society, market demands, and the process of skill transmission, posing severe tests to the continuity of inlaid porcelain techniques. First, a reduction in market demand constitutes a significant challenge for the heritage of inlaid porcelain technologies. In modern society, the rapid impact of industrialization and modernization has gradually diminished the market demand for traditional handicrafts. People tend to favor mass-produced, low-cost goods, while the longer production cycles and higher costs of traditional handicrafts squeeze the market space for inlaid porcelain technologies. The lukewarm market makes it difficult for inheritors to sustain a livelihood, also dampening the enthusiasm of the younger generation to learn inlaid porcelain techniques.

Given that the mastery of inlaid porcelain requires cumulative effort, based on each master's standards for taking apprentices, a Puning inlaid porcelain inheritor believes it takes 20 years of rigorous training and practice for an apprentice to achieve mastery, while Daliao and Chaohzhou inheritors estimate four to five years. This discrepancy highlights the significant difficulty in mastering inlaid porcelain craftsmanship. During their apprenticeship and even after becoming skilled, their wages are meager; moreover, their income is not notably high without a strong reputation. Nowadays, even unskilled jobs can pay more than what inlaid porcelain apprentices earn, presenting a very real problem. With many young people measuring a job's worth by its financial return, highlighting the value of inlaid porcelain as a national intangible cultural heritage is an issue that heritage protectors must consider.
Second, the dilemma in the heritage of inlaid porcelain techniques is also reflected in the loss of traditional craftsmanship. Owing to the lengthy learning and practice period required for inlaid porcelain techniques, the issue of inheritor attrition is becoming increasingly prominent. Younger generations, owing to heavy schoolwork and pressures, show little interest in learning inlaid porcelain techniques, leading to an increasingly unclear path of transmission. This results in the gradual loss of core techniques and detailed craftsmanship, which affects the integrity of inlaid porcelain heritage. When asked about the duration required to master the craft, a Puning inheritor mentioned:

"One of my father's apprentices started at 17 and only became more meticulous in his work in his forties. Because he was initially unskilled and we often had to practice on external projects, only through accumulating more practical experience could he graduate. It indeed poses a high difficulty, meaning you cannot expect to master everything and work independently after just two or three years of learning."

(Interview date: July 7, 2023)

Furthermore, technological updates pose a significant challenge to the heritage of inlaid porcelain techniques. With continuous technological advancements, traditional methods and techniques of handicraft production are gradually being replaced by modernized, mechanized production methods in the market. Some inheritors struggle to adapt to technological changes, leading to a decline in the competitiveness of inlaid porcelain techniques in the modern production system. The integration of traditional crafts with modern technology emerges as a new challenge in skill transmission, with the exploration of this new model still in its early stages. A Puning inheritor mentioned their current use of factory-produced ceramic bowls for cutting porcelain pieces:

"In the past, the materials varied in size, making the final products less aesthetically pleasing. Now, we order customized materials, ensuring that each piece I produce is identical."

(Interview date: July 7, 2023)

In interviews with Daliao inlaid porcelain inheritors, it was revealed that they regularly send people to schools for promotion and skill teaching, and some students come to workshops for practice. Chaoshou inheritors, based on inlaid porcelain museums, collaborate with universities in the Chaoshan region. While this is a positive sign, concerns arise about procedural rigidity and the potential for these efforts to devolve into mere formalism during implementation.

"The key issue now is that many young people do not want to learn because it's seen as monotonous and boring. We're gradually developing, observing students' interest in learning. Currently, some elementary students are learning here. My master has also opened training classes in many schools, and I've gone to schools to teach as well."

(Interview date: July 8, 2023)

In future collaborations with schools, it's imperative to convey the distinctive status of inlaid porcelain as a national intangible cultural heritage to students, enhancing their initiative to promote and learn inlaid porcelain craftsmanship. This approach can alleviate some of the challenges faced in its transmission.

2) Financial limitations and protection of cultural treasures

Financial difficulties represent a significant disturbance in the heritage of inlaid porcelain techniques. The production cycle of traditional crafts is lengthy, and the necessity for extensive manual operations leads to high production costs. In the context of fierce market competition, some inheritors struggle to maintain the normal operation of their workshops, facing substantial livelihood pressures. This financial predicament not only impacts the enthusiasm of inheritors, but also restricts the development space of inlaid porcelain techniques in the market.

All three major inlaid porcelain heritage bases are located in the Chaoshan region. Interviews revealed that the funding for inlaid porcelain dissemination tasks in these areas primarily comes from the personal expenses of the three major inheritors, including the construction of the Chaoshou Inlaid porcelain Museum by the Lu family using their own funds. Mr. Chen from Puning explicitly mentioned that the local government only awards plaques to intangible cultural heritage inheritors and offers minimal advice, with the majority of funding coming from personal expenses.

"The financial issue is actually quite challenging. For example, if you want to innovate something, that's not realistic either, and the government isn't addressing these issues currently. The government's focus is on persuasion, which is why there are often some activities."

(Interview date: July 8, 2023)

The development of Daliao inlaid porcelain should receive more government backing. Because the inlaid porcelain workshops are close to the village council, we have also contacted local workers during our interviews. At a time when inlaid porcelain art faces diminishing market demand and a lack of successors, the government has not provided sufficient help. In circumstances where inheritors of intangible cultural heritage face the dual
pressures of securing their livelihoods and perpetuating the techniques of inlaid porcelain, they find themselves caught in a dilemma between pragmatic sustenance and the pursuit of their ideals. This predicament, which forces them to choose between basic needs and the noble aspirations of cultural preservation, has become an issue that demands immediate attention and resolution.

Overall, the preservation of inlaid porcelain techniques is fraught with challenges that stem from market forces and societal changes, as well as internal difficulties related to the transmission of skills, market demand, and financial limitations. Overcoming these challenges requires the collective effort of various societal domains, including government policy support, market cultivation, and innovation of inheritors. It is through this collaborative endeavor that the heritage of inlaid porcelain can persist and flourish amidst the currents of change.

V. ANALYSIS OF RESULTS

Inlaid porcelain, a traditional Chinese craft, embodies rich cultural connotations and exquisite craftsmanship. In the currents of modern societal transformation, the inheritance of inlaid porcelain is crucial, yet faces multifaceted challenges. To ensure the sustainable transmission of this intangible cultural heritage, it is necessary to seek innovative pathways built upon traditional foundations. This study employed Pearson and Kendall correlation analyses within the context of rural revitalization to examine the relationships between various independent variables and the transmission of inlaid porcelain techniques, aiming to explore how these factors influence the ongoing practice and development of this traditional craft.

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Coefficient</th>
<th>Correlation</th>
<th>Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Policy Support</td>
<td>-0.242011</td>
<td>Negative</td>
<td>Somewhat positive but varies and includes adverse effects.</td>
</tr>
<tr>
<td>Education and Training</td>
<td>0.119736</td>
<td>Positive</td>
<td>Somewhat positive, albeit weak.</td>
</tr>
<tr>
<td>Economic Factors</td>
<td>Varies by region</td>
<td>Positive</td>
<td>Differentially affects the activity of transmission subjects across regions.</td>
</tr>
<tr>
<td>Public Curiosity</td>
<td>-0.474334</td>
<td>Negative</td>
<td>Detrimental to the transmission of inlaid porcelain techniques.</td>
</tr>
<tr>
<td>Public Appreciation of Heritage</td>
<td>0.170925</td>
<td>Positive</td>
<td>Positively affects transmission, albeit weakly.</td>
</tr>
<tr>
<td>Modernization and Challenges of Changing Times</td>
<td>0.521787</td>
<td>Positive</td>
<td>Moderately positive, suggesting that appropriate challenges and changes in the modernization process can promote the transmission and innovation of techniques.</td>
</tr>
<tr>
<td>Familial Transmission Methods</td>
<td>0.478878</td>
<td>Positive</td>
<td>Moderately positive, highlighting the significant role of family and private efforts in craftsmanship transmission.</td>
</tr>
<tr>
<td>Cultural Protection and Intellectual Property</td>
<td>0.437961</td>
<td>Positive</td>
<td>Positively impacts transmission, though the effect is relatively weak.</td>
</tr>
</tbody>
</table>

The results demonstrate that these variables have diverse impacts on the transmission of inlaid porcelain techniques, as shown in Table 1. First, government policy support shows a negative correlation, indicating that despite positive intentions, the actual effectiveness might be compromised by inconsistencies in policy implementation and other interfering factors. This finding underscores the need for more refined policy design and implementation to effectively support the inheritance of traditional crafts. Second, modern education and training have a positive impact, although it is relatively weak, suggesting that while educational programs support the transmission, they might need strengthening to be more effective. Additionally, economic factors exhibit a positive correlation that varies regionally, indicating that the level of economic development affects the transmission differently across areas, likely related to local economic conditions and resource allocation.

Public curiosity negatively impacts the transmission of inlaid porcelain techniques, showing that superficial interest in intangible cultural heritage might hinder the deep transmission and protection of traditional crafts. In contrast, public appreciation for heritage, though positively correlated, has a relatively weak effect, indicating significant room for improvement in public awareness and education.

Notably, the challenges of modernization and changing times have a moderately positive correlation with the transmission of inlaid porcelain techniques, suggesting that appropriate challenges and changes can foster the transmission and innovation of these crafts. Likewise, familial transmission methods show a moderate positive correlation, underscoring the importance of family and personal efforts in the transmission process. Finally, the improvement of cultural protection and intellectual property rights has a positive effect, though it is weak.
emphasizing the role of legal and cultural policies in protecting and promoting the transmission of craftsmanship.

In summary, this study highlights the role of multiple factors in the transmission of inlaid porcelain techniques, particularly the positive impacts of modernization challenges, familial transmission methods, and supportive cultural policies. It also points out the areas where government policy and public engagement could be improved. These insights provide crucial empirical evidence and considerations for the formulation and implementation of future policies.

Table 2: KMO and Bartlett's Test

<table>
<thead>
<tr>
<th>Bartlett's Test of Sphericity</th>
<th>KMO Value</th>
<th>Approximate Chi-Square</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.782</td>
<td>1595.481</td>
<td>253</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

Note: *** ** * indicates a significance level of 1%, 5%, 10%

The KMO value of 0.782 suggests moderate correlation between variables, meeting the basic requirements for factor analysis. According to the standards of the KMO test (table 2), this value indicates that the data are moderately suitable for factor analysis. Moreover, the result of Bartlett's test of sphericity (table 2), with a P-value of 0.000, significantly below the 0.05 threshold, indicates the presence of common variance among variables, thus supporting the suitability of factor analysis. These results validate the feasibility of factor analysis, providing a foundation for further statistical processing and multivariate data analysis.

VI. CONCLUSION

This study uses Pearson and Kendall correlation analyses to investigate the impact of various factors on the transmission of inlaid porcelain, a traditional Chinese craft. Conducted within the context of rural revitalization, the research aims to understand how these variables influence the craft's practice and development, addressing the challenges it faces during modern societal transformations. The approach highlights the necessity of innovative, yet traditionally rooted, methods to ensure the sustainable inheritance of this intangible cultural heritage.

This study examined how to ensure the sustainable transmission and development of inlaid porcelain techniques, a valuable intangible cultural heritage, in the context of rural revitalization. The research indicates that government policies, educational training, economic conditions, public awareness, and the challenges of modernization impact the transmission of inlaid porcelain techniques. Although government policies are intended to support, their effectiveness is often compromised by inconsistencies in implementation and other disruptive factors, resulting in a negative correlation. Therefore, future policy design and implementation must be more refined. Additionally, economic factors vary by region and positively correlate with support for the transmission of inlaid porcelain, demonstrating that the level of economic development differently influences transmission across regions. Appropriate challenges and changes brought about by modernization and changing times also show a positive impact on transmission. Similarly, familial transmission methods, strengthened cultural protection, and intellectual property rights positively influence the transmission of inlaid porcelain techniques, though to varying degrees.

This research focused on the modernized transmission of inlaid porcelain techniques against the backdrop of rural revitalization and proposed three core strategies to ensure their sustainable development:

First, promoting the modernization of inlaid porcelain. The craft is currently integrating with the modern business system, achieving a blend of tradition and modernity. By incorporating innovative designs, the charm of traditional inlaid porcelain is preserved while enhancing its market competitiveness, aligning with modern aesthetics. Additionally, the digitization and internalization of inlaid porcelain help showcase the craft through virtual platforms, thus broadening public interest and understanding of this traditional culture.

Second, preserving the foundation of familial transmission. Familial inheritance is the primary mode of transmitting inlaid porcelain techniques, involving the transfer of skills and inheritance of cultural identity. Familial methods strengthen the continuity of the craft and cohesion of the family, ensuring the stable development of traditional crafts in modern society.

Third, enhancing awareness of intellectual property rights protection for inlaid porcelain. Intellectual property protection is crucial for the continued transmission of inlaid porcelain techniques, with governmental focus providing necessary support and encouragement to artisans. Moreover, strengthening property rights protection shields traditional crafts from infringement and promotes their sustainable development.
Overall, by driving modernization, securing familial transmission, and enhancing intellectual property protection, inlaid porcelain techniques can continue to thrive in the face of modern challenges. These strategies will unite government, businesses, and community efforts to promote the prosperous development of inlaid porcelain intangible cultural heritage in the Chaoshan region, leaving a valuable cultural legacy for future generations.

REFERENCES