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Research on the Adaptive Development of Traditional Architectural Decorative Crafts: A Case Study of Chaozhou Inlaid Porcelain

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Abstract: As cultural heritage carriers, traditional architectural decorative techniques face substantial adaptation challenges in contemporary society. Chaozhou Inlaid Porcelain, a nationally recognized intangible cultural heritage (ICH) of China, integrates artistic value with functional adaptability. However, its sustainability is undermined by high production costs, limited market demand, and weakening intergenerational transmission. Based on dynamic adaptation theory, this study systematically explores the inheritance and innovative evolution of Inlaid Porcelain. It aims to examine the feasibility of adapting the craft to modern societal needs and provides theoretical and practical references for the sustainable development of ICH. Employing a mixed-method approach, this study integrates SWOT analysis and case studies to delineate the dynamic adaptation pathways of Inlaid Porcelain across technological advancement, functional development, market positioning, education, and dissemination. The results suggest that Inlaid Porcelain possesses strong potential to meet modern aesthetic and functional expectations. This study highlights that ICH crafts can enhance cultural, economic, and social benefits by expanding their functions and adopting market-driven approaches. Yet, limited societal recognition and public engagement constrain its dynamic adaptation. This study proposes a systematic feedback mechanism integrating policy, market, and heritage transmission to enhance adaptive development. Furthermore, by developing a dynamic adaptation model, this research offers a practical framework for safeguarding and revitalizing traditional crafts, ultimately supporting the sustainable integration of cultural, economic, and social development.

Keywords: intangible cultural heritage; dynamic adaptability; Chaozhou Inlaid Porcelain; cultural preservation; traditional crafts; sustainable development

Academic Editor: John Carman

Received: 7 January 2025
Revised: 5 February 2025
Accepted: 7 February 2025
Published: 13 February 2025

Citation: Ma, Y.; Roosli, R. Research on the Adaptive Development of Traditional Architectural Decorative Crafts: A Case Study of Chaozhou Inlaid Porcelain. *Sustainability* **2025**, *17*, 1541. https://doi.org/10.3390/su17041541

1. Introduction

1.1. Study Sketch

Traditional Chinese architectural decorative art serves as a vital medium of cultural expression, integrating elements of nature, religion, and folklore. Its distinctive aesthetics and craftsmanship have garnered international recognition [1,2]. Inlaid Porcelain, an integral part of Lingnan culture, emerged during the Wanli period of the Ming Dynasty and peaked artistically in the Qing Dynasty. Revered as an "everlasting brilliant sculptural art", it has been extensively used in ancestral halls, temples, and other traditional structures, symbolizing the artistic identity of the region [3]. Traditional architectural decorative arts are inherently shaped by geography, climate, and the availability of natural resources [4]. Situated along the eastern coast of Guangdong, the Chaoshan region has cultivated a

clan-centric folk culture and artistic tradition influenced by its distinct geographical and ecological context [5]. Inlaid Porcelain craftsmanship evolved within this cultural framework, with its motifs, techniques, and artistic forms profoundly shaped by clan heritage and folk traditions.

Since the 20th century, rapid modernization has driven the decline of traditional craftsmanship, presenting significant challenges for the sustainability of Chaozhou Inlaid Porcelain [6,7]. On one hand, the prolonged production cycles and high costs of traditional craftsmanship hinder its ability to align with the fast-paced development of modern architecture. On the other hand, the extensive training required for artisans, the substantial financial investment, and diminishing interest among younger generations have placed the craft at risk of transmission failure [3,8]. The rise of modern architecture has posed significant challenges to preserving and developing traditional architectural techniques [9]. Traditional decorative craftsmanship has historically been employed in ancestral halls, temples, and residential buildings characterized by grandeur and intricate ornamentation. However, the modern architectural paradigm prioritizes minimalism and functionality, challenging the adaptability of these traditional styles. The proliferation and diversification of modern construction materials, including glass curtain walls and metal facades, have significantly constrained the application of traditional architectural decorative techniques [10,11]. Moreover, the increasing densification of urban environments has gradually reduced traditional buildings, diminishing the demand for traditional decorative craftsmanship. In contemporary society, architectural decoration is expected to emphasize environmental sustainability and economic viability. However, the high production costs and prolonged fabrication process of Inlaid Porcelain create significant competitive pressures in the market. Contemporary aesthetic preferences have shifted towards greater diversity, gradually diluting traditional auspicious and totemic symbolism. Consequently, the artistic expression of Inlaid Porcelain must adapt to evolving cultural contexts [12].

Currently, the adaptive conservation of ICH has emerged as a critical research focus in both academic and practical domains. In 2003, UNESCO introduced the Convention for the Safeguarding of Intangible Cultural Heritage. It underscores that ICH, as a living heritage, must adapt to contemporary societal transformations to maintain its dynamism and vitality rather than being passively preserved in museum settings [13]. Furthermore, the convention encourages nations to adopt adaptive conservation strategies that integrate modern societal needs and leverage innovative methods to ensure the sustainable transmission of ICH [14]. For example, incorporating ICH into education, cultural promotion, tourism development, and industrial innovation strengthens its relevance to contemporary society, fostering greater public awareness and participation [15]. In 2012, Chaozhou Inlaid Porcelain was officially recognized as a national ICH in China, highlighting the critical need for its preservation and transmission [16]. Recent studies on ICH adaptive conservation in China have primarily explored how traditional craftsmanship can be integrated into contemporary design and daily life, revitalizing its transmission and sustainable development [17,18]. Scholars have further proposed dynamic protection models that involve community participation, interdisciplinary collaboration, and policy support, shifting the emphasis from static to "living" forms of transmission. Adapting ICH craftsmanship to contemporary societal needs is a critical issue requiring further exploration [14].

Therefore, this paper will construct an adaptive development model for Chaozhou Inlaid Porcelain based on dynamic adaptation theory (Figure 1). This study seeks to strengthen its viability in contemporary contexts by examining its dynamic adaptation pathways in modern society. Additionally, the study proposes a set of evaluation criteria and a feedback mechanism to bolster the sustainability of ICH craftsmanship. The first

section introduces the study, providing an overview of existing research on ICH craftsmanship. It includes a literature review on ICH dynamic adaptation, defines the research objectives, and presents the study's conceptual framework. Section 2 details the research methodology and materials, offering an in-depth examination of the characteristics of Chaozhou Inlaid Porcelain. It presents data from a SWOT analysis and formulates dynamic adaptation evaluation metrics. Section 3 analyzes the findings from the SWOT assessment, outlining the dynamic adaptation pathways for Inlaid Porcelain. Case studies further reveal the adaptive performance of Inlaid Porcelain in modern society. The evaluation results identify its future developmental directions. Section 4 further discusses the results of this study and proposes a feedback mechanism based on policy, market, and inheritance to optimize the adaptive development pathways. Section 5 provides conclusions and future research prospects.

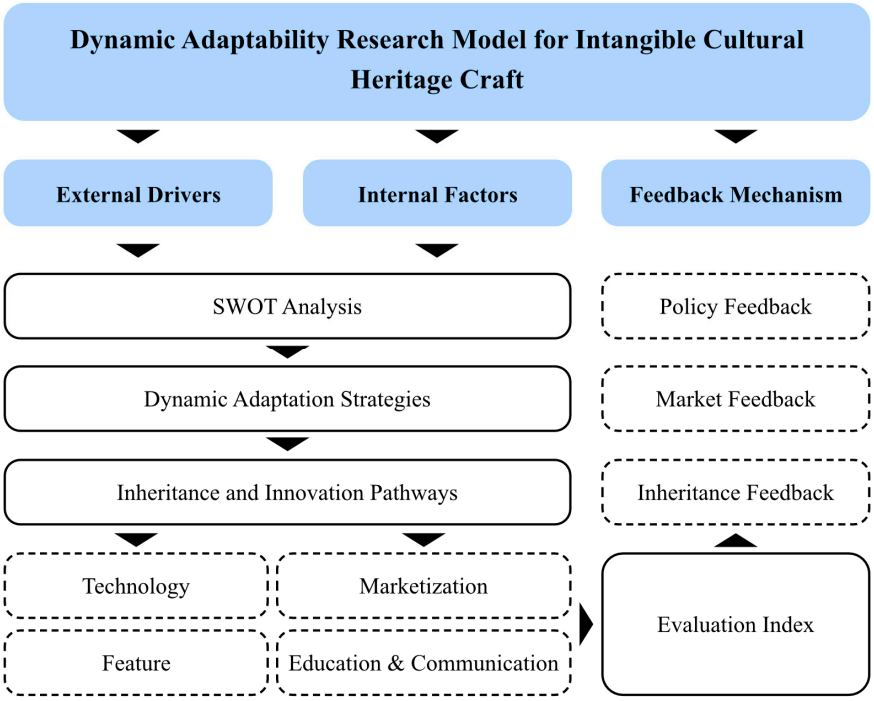


Figure 1. Dynamic adaptability research model for intangible cultural heritage crafts. Designed and made by the author.

1.2. Dynamic Adaptation of Intangible Cultural Heritage

As a vital conduit for cultural transmission, intangible cultural heritage (ICH) has become an increasingly prominent focus in globalization and modernization [14,19]. Contemporary research has centered on refining the definition and core values of ICH, examining holistic, adaptive strategies, and investigating the transformative potential of digital technologies in heritage preservation [20–22]. UNESCO underscores the role of ICH as an intergenerational conduit essential for safeguarding cultural diversity while significantly shaping community identity and fostering social cohesion [13,14,20]. Recent scholarship has unveiled the profound intersection between ICH and the Sustainable Development Goals (SDGs), particularly in fostering social inclusion and economic benefits [14,19–29]. ICH embodies a broad spectrum of cultural expressions and practices passed down through generations [13,14]. Preserving and developing ICH is imperative for maintaining cultural diversity and securing the continuity of these traditions within the modern landscape [14,15,20,23]. Moreover, digital preservation has gained traction as a pivotal research domain, with advancements in virtual reality (VR) and augmented

reality (AR) offering novel pathways for ICH dissemination and education while expanding opportunities for public participation and innovative conservation approaches [30–37].

Current research trends primarily focus on the comprehensive assessment of factors influencing the adaptability of ICH. This includes systematically evaluating various cultural, social, economic, and environmental factors to assess the effectiveness of adaptive strategies [21,23–25]. Radziszewska-Zielina E. and Śladowski G. applied fuzzy modeling and structural analysis to establish a scientific foundation for the adaptive reuse of historic buildings, refining conservation strategies by quantifying uncertainties [21]. Haroun H. A. A. F. et al., in their study on the adaptive reuse of the Aziza Fahmy Palace in Alexandria, assessed the potential impacts of functional transformation, emphasizing the sustainability of different reuse strategies and scientifically determining the conservation pathway for heritage buildings [23]. Dell'Ovo et al. (2021) conducted a multi-criteria decision analysis (MCDA) on the adaptive reuse of Castello Visconteo in Cusago, Italy, highlighting the necessity of balancing cultural conservation and economic benefits to achieve a comprehensive equilibrium. They proposed adaptive strategies tailored to different scenarios [24]. Yau Y. utilized the Analytic Hierarchy Process (AHP) to assess selection criteria for urban heritage conservation projects, stressing the significance of integrating community values into the decision-making framework [25]. This integrative methodology quantifies ICH adaptability using a multidimensional evaluation framework, ensuring the effective execution of dynamic conservation strategies.

Furthermore, researchers have explored participatory approaches in ICH conservation, underscoring the critical role of stakeholder engagement, particularly in community involvement [26–28]. For instance, Chen O. and Han D. A. utilized multi-criteria decision analysis to navigate the intricate environmental challenges of cultural heritage conservation, stressing the pivotal role of participatory methodologies in heritage decision-making [27]. Rasoolimanesh S. M. et al. argue that revitalizing community engagement is essential for safeguarding cultural heritage and maintaining its dynamic transmission [28]. These findings underscore the necessity of harmonizing cultural preservation with contemporary functional demands in adaptive ICH initiatives. Notably, the adaptive conservation of ICH plays a vital role in regional cultural development and economic advancement, generating significant benefits for cities, communities, and stakeholders [22,29,38]. The implementation of circular economy principles through the adaptive reuse of ICH significantly contributes to economic growth, innovation, and regional development [39,40]. Consequently, the recreation of economic value through ICH has become a critical research priority. Through adaptive reuse, ICH can sustain its cultural significance while simultaneously generating economic and social benefits [22,41].

Furthermore, another key research outcome is the widespread application of digital technology [30–32]. The establishment of virtual museums and digital content enables the public to engage with cultural heritage in a more immersive and accessible manner. This progress has not only reinforced cultural confidence but also broadened the dissemination scope of ICH [33]. For example, incorporating VR and AR technologies has been instrumental in ICH conservation initiatives [34]. Xu N. et al. highlight that digital technology serves as a crucial medium for tourists to engage with and comprehend cultural heritage, providing highly interactive experiences that enhance visitor learning and immersion [35]. Pagano A. et al. and Škola F. et al. examined the role of VR and AR technologies in constructing immersive experiences that foster deeper public participation in ICH transmission [36,37]. The methodological diversity in current research offers robust theoretical and practical foundations for the dynamic adaptation and conservation of ICH. Consequently, ongoing research on ICH adaptation has progressively shaped a comprehensive framework for its dynamic preservation and adaptation. The primary emphasis of this framework revolves

around the convergence of technology-driven conservation strategies and the regeneration of economic value.

However, the effectiveness of dynamic ICH adaptation relies on a delicate balance between community participation, commercial development, cultural authenticity, and the deep integration of education and digital technology [18,42–44]. On the one hand, as both the creators and custodians of ICH, communities play a fundamental role in driving its conservation. In the context of modernization, commercial development must be cautiously approached to prevent excessive marketization from compromising cultural authenticity [42]. Simultaneously, innovation in traditional craftsmanship must retain its intrinsic essence, ensuring its transmission and evolution without undermining its cultural value. On the other hand, education serves as a crucial channel for ICH transmission, with the innovative "Internet + ICH education" model recognized as an effective means to enhance its dissemination and influence [45–48]. Digital conservation efforts are frequently dominated by technology experts, neglecting the involvement of communities and heritage bearers, which may result in a disconnection from cultural meaning [49,50]. Additionally, enhancing community participation and fostering social identity through education and dissemination remains a significant challenge [18].

1.3. Chaozhou Inlaid Porcelain

According to the Guangdong Arts and Crafts Historical Materials, Inlaid Porcelain, a distinctive architectural decoration art from the Chaoshan region, has been passed down for more than three centuries. It originated in the Ming Dynasty during the reign of Emperor Wanli. It is typically found on the gable walls of traditional local residences, becoming an integral part of the region's architectural decoration [8,51]. Early Chaoshan buildings primarily featured gray plaster (hui su) and painted decorations; however, these materials quickly faded or deteriorated in the area's humid, high-salinity environment. Inspired by this practical dilemma, Chaoshan artisans embedded locally abundant ceramic fragments onto building surfaces, creating a decorative technique that was both aesthetically pleasing and durable [16]. This craft combines the sculptural qualities of gray plaster with ceramic inlay, endowing Inlaid Porcelain works with distinctive color, texture, and expressive depth [3,16]. In the mid-to-late Qing Dynasty, the widespread use of Chaozhou polychrome ceramics fueled the rapid development of Inlaid Porcelain. The widespread use of Chaozhou polychrome porcelain allowed artisans to create works with rich colors, intricate patterns, and strong three-dimensionality [3,8,51]. By the late Qing Dynasty and early Republican era, the artistic quality of Inlaid Porcelain had reached its zenith, establishing itself as a crucial feature in the decoration of ancestral halls, temples, and residential structures in the Chaoshan region [8,51] (Table 1). Nevertheless, Inlaid Porcelain faces transmission challenges due to the impact of modern construction materials and styles and the declining demand for traditional architecture [8]. Despite these challenges, Inlaid Porcelain was officially recognized as part of the National Intangible Cultural Heritage List in 2012, owing to its distinctive cultural and artistic value [51,52]. This recognition not only reaffirmed the craft's significant position within traditional Chinese cultural crafts but also provided a new direction for its protection and transmission [3,52].

Table 1. Historical development of Chaozhou Inlaid Porcelain. Examined and summarized by the author.

Period	Time	Stage	Characteristics
Early Period (Ming Dynasty, Wanli)	About late 16th century–mid 18th century	Initial	Traditional buildings relied mainly on gray plaster and painted decorations. Broken pottery shards were applied to gable walls to form flat decorative patterns, though the effect was relatively coarse.
Middle Period (Mid-to-Late Qing Dynasty)	About late 18th century–mid 19th century	Development	The emergence of colorful porcelain led artisans to replace rough ceramic shards with finer porcelain fragments. This introduced improved aesthetics and greater thematic diversity in decorative motifs.
Late Period (Late Qing to Early Republican)	About late 19th century–early 20th century	Maturity	The craft reached a mature level of technical sophistication and artistic expression. Artisans produced vibrant colors, varied shapes, and complex effects. It has become a crucial component of traditional architectural ornamentation.

1.4. Shifting from Traditional to Modern Application Contexts

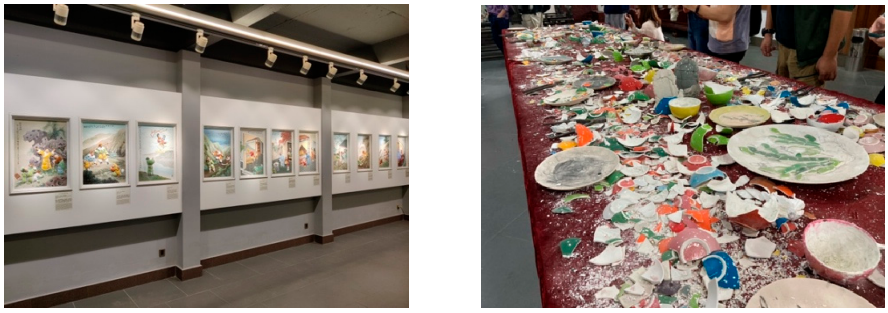
A popular saying in the Chaoshan region, "Chaozhou houses are as splendid as palaces", vividly depicts the luxurious decorations of traditional Chaoshan residences, reflecting the local people's generosity in architectural decoration. Traditional Chaoshan architecture typically features a yingshan ding (hard gable roof), while wudian ding (hip-and-gable roofs) is less commonly seen in ancestral halls and temples. Another popular proverb, "There is a theatrical scene at every corner of a Chaozhou house", precisely captures the unique style of traditional Chaoshan architecture. Inlaid Porcelain is widely applied to gable roofs, most notably along the main ridge (Zheng ji), secondary ridges (Chui ji), gable walls (Shan qiang), and screen walls (Zhao bi) (Figure 2). The main ridge often integrates three crafts arranged symmetrically around motifs such as flowers, birds, insects, and mythical beasts. Artisans commonly use raised or fully three-dimensional inlay at the ends of the secondary ridges, favoring themes like human figures or flower baskets. The gable walls primarily feature continuous patterns and individual Flat Inlay, with themes often drawn from natural elements and auspicious symbols. The screen walls (Zhao bi) and waist panels (Yao du) are frequently adorned with paintings featuring a wide range of motifs. These decorative elements and techniques vary according to the function and location of the building, not only showcasing the uniqueness of Chaoshan culture but also imparting a distinct artistic character and profound cultural significance to the architecture [53].

(**a**) (**b**)

Figure 2. Inlaid Porcelain in traditional architectural decoration. (**a**) Inlaid Porcelain on the main ridge (Zheng ji) (collected and collated by the author); (**b**) Inlaid Porcelain gable walls (Shan qiang) (collected and collated by the author).

However, with the development of the times and changes in societal needs, the traditional Inlaid Porcelain has gradually evolved from a purely architectural decoration to undergoing a dynamic adaptation process. In order to gain renewed vitality in the modern era, Inlaid Porcelain has undergone adaptive innovations in its crafts, modes of expression, and application contexts. For example, its subject matter has expanded from customary auspicious motifs to include abstract art, while the craft itself has evolved from flat decorative work to three-dimensional design. Its application spheres have likewise broadened—from traditional dwellings to modern buildings and public art installations. This dynamic adaptation process has enabled the Inlaid Porcelain to transition from tradition to modernity, positioning it as a model of cultural heritage and innovative development.

Since being listed as a national intangible cultural heritage, Chaozhou's Inlaid Porcelain has shifted from static protection to dynamic adaptation in its preservation and development. This transformation has not only preserved the craft's historical and cultural value but has also expanded its applicability and vitality in modern society through ongoing innovation. For example, the Inlaid Porcelain exhibition hall and experience zone established by the Chaozhou Museum showcases the complete process of the craft, providing the public with an immersive platform for an in-depth experience (Figure 3). Meanwhile, inheritors and artists have made adaptive innovations in the craft and its application scenarios, creating cultural and creative products and souvenirs demonstrating the deep integration of traditional craftsmanship and modern design. Their innovative applications in modern architecture and public art have opened new pathways for their inheritance and development.



(**a**) (**b**)

Figure 3. Exhibition hall and experiential area for Inlaid Porcelain works. (**a**) Exhibition of Inlaid Porcelain works at Chaozhou Museum (photographs taken by the author); (**b**) Inlaid Porcelain experience area at Chaozhou Museum (photographs taken by the author).

2. Materials and Methods

2.1. Research Methods

This study employs a qualitative research approach, integrating theoretical frameworks with field research to systematically explore the dynamic adaptation and development path of Chaozhou Inlaid Porcelain. First, a literature review is carried out to examine the current state and issues in the research on dynamic adaptation of ICH, clarifying the research objectives and the framework for model construction. The advantage of the dynamic adaptation model lies in its systematic and flexible nature, which enables a balanced consideration of cultural, functional, and market values and the dynamic optimization of protection measures through a multidimensional feedback mechanism (Figure 4).

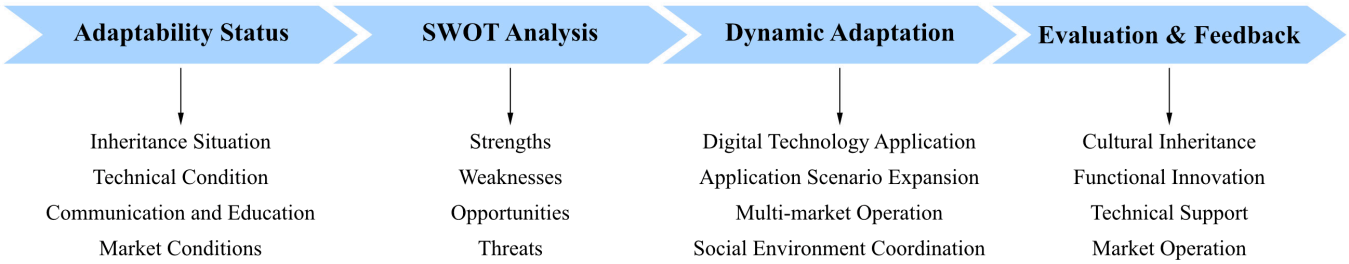


Figure 4. Flowchart of the method. Designed and made by the author.

SWOT analysis offers a multidimensional approach that systematically reveals the interaction between the intrinsic characteristics of the subject and its external environment, providing a comprehensive and balanced perspective [54,55]. Unlike other methods, SWOT analysis accounts for the integrated cultural value, social significance, and market adaptability characteristics. It is suitable for exploring complex issues such as the cultural impact and economic benefits of dynamic adaptation in ICH [54]. By analyzing the four perspectives—strengths, weaknesses, opportunities, and threats—SWOT analysis enables researchers to quickly identify the core strengths and potential risks of ICH crafts, highlight advantages and weaknesses, and define the dynamic adaptation development direction, thus providing a foundation for building development pathways and optimization strategies for the Inlaid Porcelain dynamic adaptation model [55]. Moreover, as a descriptive tool, it provides practical decision-making guidance through a strategic matrix, offering concrete references for the cultural transmission, functional innovation, technical support, and marketization of ICH crafts while also offering a scientific theoretical basis and practical support for research on dynamic adaptation [55–58]. Its simplicity and flexibility allow it to be adapted to different ICH crafts and contexts, offering timely and practical assessments of dynamic adaptation [57]. This approach not only supplements the situational recognition function of the dynamic adaptation model but also strengthens its strategic optimization and risk assessment capabilities, thereby creating a more practical and flexible system for ICH protection.

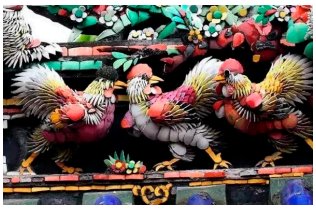
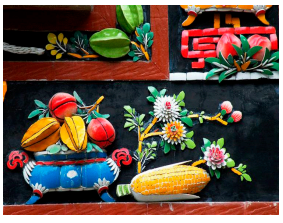
In terms of data collection, this study employs field surveys and literature reviews to collect basic data on the traditional techniques, production processes, and composition methods of the Inlaid Porcelain, which are then compiled into Tables 1–3 as research materials for this study. Through site visits and surveys, a comparative study is conducted on the decorative application of Inlaid Porcelain in traditional and contemporary Chaozhou architecture, supplemented by interviews with artisans and the director of the Chaozhou Museum, to gather data on the current status of transmission and the innovative development needs of this craft.

The dynamic adaptation model ultimately identifies the adaptive innovation path, evaluation metrics, and feedback mechanism for the Chaozhou Inlaid Porcelain. This model outlines an adaptive development pathway for the craft to align with the needs of contemporary society. This study offers theoretical guidance for the inheritance and development of Inlaid Porcelain while providing practical foundations for the dynamic protection and revitalization of ICH.

Table 2. Categories of the Chaozhou Inlaid Porcelain. Examined and summarized by the author.

Craft	Feature	Description and Application	Images
Flat Inlay	Textured	The method is relatively simple, the surface is slightly flat, and the level is single. It is mainly used for inlaying auspicious patterns.	
Raised Inlay	Bas-Relief	The practice is relatively complex, the level is rich, and the image is vivid. It is mainly used on the roof ridge.	
Three-Dimensional Inlay	Sculptural	The practice is the most complex and rich layer, and the image is vivid. It is mostly used on the pendant belt and the backbone of the house.	

Table 3. Combination forms of different themes in Chaozhou Inlaid Porcelain. Examined and summarized by the author.

	Combination 1	Combination 2	Combination 3	Combination 4
Crafts	Flat Inlay, Raised Inlay, Three-Dimensional Inlay	Flat Inlay, Raised Inlay	Raised Inlay, Three-Dimensional Inlay	Flat Inlay, Three-Dimensional Inlay
Composition	Symmetry between left and right	Balanced	Balanced	/
Features	Texture, Bas-Relief, Sculpture, Substantial Layers	Texture, Bas-Relief, Strong Layers	Bas-Relief, Sculpture, Strong Layers	Texture, Sculpture, Relatively Single Layer
Themes	Auspicious Animals, Flora and Fauna, Human Figures, Auspicious Patterns	Flora and Fauna, Human Figures, Auspicious Patterns	Auspicious Animals, Flora and Fauna, Human Figures	Flora and Fauna, Auspicious Patterns
Images				

2.2. Chaozhou Inlaid Porcelain Craft Characteristics

Chaozhou Inlaid Porcelain is renowned for its unique materials and exquisite craftsmanship, perfectly combining artistry and functionality. It has become a traditional architectural decoration craft in the Chaoshan region. The primary materials used to create Inlaid Porcelain include broken porcelain pieces, paper clay, brown sugar syrup, iron or

copper wire, and tools such as hammers, pliers, spatulas, and trowels. In the early stages, artisans primarily used discarded broken porcelain shards, while later artisans shifted to using fully fired porcelain bowls, breaking them into pieces and selecting the appropriate sizes for cutting and shaping. The inherent durability and corrosion resistance of these materials ensure the long-term stability of the porcelain pieces, even under varying climatic conditions. The creation process generally encompasses key steps such as plaster shaping, porcelain shard cutting, and inlaying. Its complexity vividly demonstrates the artisan's craftsmanship. Artisans follow the design blueprints, starting by shaping the base structure with paper clay, cutting the porcelain pieces to the required shapes and sizes, and ultimately inlaying the porcelain fragments into the structure. The entire process demands exceptional precision and patience, and the finely balanced artistic expression underscores the artistic value of the Inlaid Porcelain [3,8,51,52]. The craft is categorized into three types: Flat Inlay, Raised Inlay, and Three-Dimensional Inlay (Table 2).

Inlaid Porcelain demonstrates superior practicality in the humid and rainy Lingnan region. Its materials are highly weather-resistant, providing durable decorative effects capable of withstanding humidity and high temperatures and making it an ideal choice for local decoration. Its patterns and themes are diverse and rich, profoundly reflecting the cultural connotations and folk beliefs of the Chaoshan region and carrying significant symbolic meanings. The distinctive craftsmanship of Inlaid Porcelain allows for considerable freedom in thematic expression, with traditional architectural decorations generally categorized into three primary themes: auspicious beasts, flora and fauna, and human figures. The auspicious beast motifs, such as the Chinese Dragon, Phoenix, and Kylin, are the most representative decorative elements commonly found on the ridges or main gates of temples and ancestral halls, symbolizing good fortune, authority, and family prosperity. The flora and fauna motifs primarily feature flowers, birds, fish, and insects, reflecting the Chaoshan people's worldview and aesthetic values, with the peony symbolizing wealth, the lotus representing integrity, and the pine and crane signifying longevity. Human figure motifs often derive from historical stories, mythological legends, and theatrical scenes, portraying characters' expressions and body movements in intricate detail. They are commonly used in ancestral halls and opera stages. These rich and diverse themes not only enhance the decorative quality of the buildings but also make Inlaid Porcelain an essential symbol of Chaoshan's traditional culture. Its pattern design is distinct, with complex compositions emphasizing symmetry and balance, pursuing a sense of layering and three-dimensionality in form and reflecting a strong local flavor. From flat decoration to three-dimensional sculpture and from broad representations to intricate details, it demonstrates a rich range of artistic expressiveness. Furthermore, Inlaid Porcelain effectively repurposes discarded ceramic shards, reassembling them after careful cutting to transform "waste" into "treasure". Its striking visual appeal resonates with the folk customs of the Chaoshan people who seek prosperity and good fortune [3,8,51,52].

Inlaid Porcelain from Chaoshan uses a rich palette of colors and distinctive textures to create a unique visual impact. It often features vibrant colors like red, green, yellow, and blue. This approach not only amplifies the visual impact of the architecture but also highlights the significant aesthetic value of folk craftsmanship in the Chaoshan region. The surface treatment of the Inlaid Porcelain works is highly meticulous, with the fusion of three distinct techniques creating a rich sense of depth. The Flat Inlay technique presents realistic patterns through the flat surfaces of the porcelain pieces. The Raised Inlay creates a relief effect through plaster, enhancing the sense of dimension. The Three-Dimensional Inlay combines a framework and plaster molding to create intricate three-dimensional effects (Table 3). This flawless integration of color and texture elevates the aesthetic appeal of

the Inlaid Porcelain works and reinforces their significant position in transmitting cultural heritage [3,51,52].

2.3. SWOT Analysis

Strengths: Rich Artistic and Cultural Value.

Chaozhou Inlaid Porcelain, distinguished by its unique artistic expression and rich cultural significance, is a hallmark example of traditional craftsmanship. Its crafts demonstrate a high level of artistic beauty and exquisite craftsmanship, with a decorative effect that distinctly reflects regional characteristics. Moreover, the high degree of creative freedom enables dynamic adaptation to diverse modern applications. Furthermore, it carries symbolic meaning related to local history and ethnic culture, symbolizing the secular aesthetic pursuits of the Chaoshan people and embodying a sense of regional identity.

Weaknesses: Challenges in Transmission.

Despite its significant artistic and cultural advantages, the intricate production process of this craft has become a significant constraint on its dynamic adaptation, hindering its promotion and commercialization. The craft requires skilled artisans and a significant amount of time for apprenticeships, coupled with the high training costs and labor-intensive production process, which drives the overall cost. Furthermore, Inlaid Porcelain is primarily used in traditional architectural decoration, which limits its audience. Many modern consumers lack a comprehensive understanding of its uses and value, resulting in low market acceptance.

Opportunities: Policy Support.

As a national intangible cultural heritage, this craft has received policy support for its transmission and development. With China's growing emphasis on protecting and transmitting cultural heritage, research, exhibitions, and practical applications related to Inlaid Porcelain have gained increased resources and platforms. Furthermore, integrating cultural and tourism development has created opportunities for innovation and dissemination. In local cultural tourism projects, digital media has provided a more efficient means of disseminating knowledge about traditional crafts beyond establishing cultural pavilions and museums. The fusion of traditional craftsmanship with modern cultural and creative industries has further paved new pathways for the dynamic adaptation and market integration of this craft.

Threats: Market Competition.

With the acceleration of urbanization in China and the limited availability of land resources, the high construction costs and space utilization rates of modern buildings have led to a decreased acceptance of traditional architecture, gradually reducing traditional buildings. The advancement of modern decorative materials and technologies has created significant market competition for Inlaid Porcelain. Contemporary materials such as metals, glass, and plastics offer advantages in cost and production efficiency and provide greater flexibility in meeting the demands of modern architecture and decoration. Furthermore, emerging technologies, such as 3D printing, have made the creation of complex decorative items more convenient, which has, to a certain extent, diminished the market competitiveness of handcrafted Inlaid Porcelain.

2.4. Strategy Analysis

Based on the preliminary SWOT analysis, the internal capabilities and external influencing factors for the transmission and development of Inlaid Porcelain are clarified. By combining various factors in the matrix, four strategies can be formed: SO, WO, ST, and WT (Table 4).

Table 4. Development strategies for Inlaid Porcelain. Examined and summarized by the author.

TOWS	Strengths	Weaknesses
	- Artistic Uniqueness - Cultural Symbolism - Strong Adaptability - High Creative Freedom	- Complex Production Process - Lengthy Talent Training Period - Limited Audience - Insufficient Market Acceptance
Opportunities	**SO**	**WO**
- Policy Support - Integration of Culture and Tourism Development - Efficient Dissemination via Digital Media - Cultural Tourism Resources and Platforms	- Enhancing Cultural Dissemination - Expanding Application Scenarios in Cultural Tourism - Digital Dissemination and Education - Broadening the Market	- Simplifying Craft Processes - Strengthening Talent Development - Market Promotion and Publicity - Developing New Cultural and Creative Markets
Threats	**ST**	**WT**
- Decline of Traditional Architecture - Limited Suitability for Modern Architecture - Emergence of New Materials - Emergence of New Technologies	- Integration of Traditional Craftsmanship with Modern Architecture - Enhancing the Appeal of Cultural Tourism Architecture - Combining with New Technologies and Materials - Modernizing the Craft	- Establishing Mechanisms for Craft Preservation - Strengthening the Protection of Traditional Architecture - Enhancing Social Recognition and Community Participation - Support through Funds and Resource Integration

SO (Opportunity–Strength) strategies: Leverage cultural advantages and policy opportunities for diversified development.

With its outstanding artistic expressiveness and profound cultural connotation, Inlaid Porcelain demonstrates dynamic adaptation potential. It possesses the capacity to achieve diversified development in contemporary society. Promoting the inheritance of intangible cultural heritage and practical innovation can enrich tourism's cultural connotations and contribute to high-quality growth. Therefore, by aligning with intangible cultural heritage policies, enhancing the dissemination of Inlaid Porcelain and expanding its applications within cultural tourism contexts is crucial. Concurrently, integrating cultural communication, market promotion, and the expansion of diverse application scenarios, coupled with leveraging the high efficiency of digital media technology for dissemination and online education, can significantly enhance public awareness and the market influence of Inlaid Porcelain.

WO (Opportunity–Weakness) strategies: Address shortcomings and improve production efficiency and market acceptance.

In response to internal weaknesses, it is essential to capitalize on external opportunities provided by policy support and cultural tourism resources to address inherent limitations. Through technological optimization and market expansion, dynamic adaptation can be implemented by utilizing policy and cultural tourism resources to enhance adaptability and address challenges such as low production efficiency and limited public acceptance. Craft optimization is pivotal to ensuring both the inheritance and development of the craft. Utilizing technology to simplify the crafting process can reduce the practical and labor costs of specific steps while maintaining the integrity of artistic expression, strengthening education and publicity, emphasizing talent cultivation, and actively expanding market channels to improve market acceptance. The dynamic inheritance efficiency of Inlaid Porcelain can be enhanced by integrating and optimizing internal and external resources.

ST (Threat–Strength) strategies: Utilize craftsmanship advantages and enhance material and technical adaptability.

The adaptability of Inlaid Porcelain is reflected in the flexibility of its themes and its dynamic ability to adapt to materials and techniques. Inlaid Porcelain exhibits high adaptability in various application scenarios in modern society, with its advantages allowing it to serve as a cultural symbol in both crafts and contemporary design. Integrating traditional craftsmanship into modern architectural space design can enhance both the aesthetic and artistic value of the built environment. Moreover, incorporating traditional crafts into local cultural tourism projects can improve the appeal of cultural tourism buildings and increase their cultural attributes and competitiveness in the tourism market. Simultaneously, the modernization of craftsmanship can be achieved by combining traditional crafts with new technologies and materials, thus preserving conventional techniques while presenting them in a contemporary form.

WT (Threat–Weakness) strategies: Establish adaptive protection mechanisms and modes of social participation to foster healthy dynamic development.

In response to reducing traditional buildings, market competition, and the scarcity of inheritors, a comprehensive protection system should be established to ensure the long-term transmission and innovative development of Inlaid Porcelain craftsmanship. By capitalizing on policy support and the opportunities presented by integrating culture and tourism, a dedicated protection mechanism should be established to safeguard existing Inlaid Porcelain traditional architecture. Simultaneously, local exhibition halls and craftsmanship experience areas were established to allow more people to learn about this craft. A comprehensive skill protection system can be created through digital modeling and establishing an online craft archive. Interactive formats enhance public awareness and interest in Inlaid Porcelain, fostering a sense of community identity and participation. By combining policy support with social forces, a complete and positive ecological system can be established to transmit and develop Inlaid Porcelain craftsmanship.

2.5. Construction of Evaluation Indicators

In globalization and diversification, intangible cultural heritage crafts must demonstrate their uniqueness and vitality through innovative development. Its evaluation should not only focus on the improvements made to Inlaid Porcelain based on traditional techniques but also include breakthroughs in materials, tools, and forms of expression [59]. Through technological innovation, Inlaid Porcelain can adapt to modern design trends, increase social attention, and ensure the sustainable development of the craft. Meanwhile, adaptability is a key indicator in assessing whether intangible cultural heritage crafts can integrate with contemporary settings, needs, and technologies [60,61]. Testing whether the Inlaid Porcelain can adapt to different usage scenarios, meet diverse individual needs, break local limitations, and appeal to a broader social group is important to consider.

In addition, ICH crafts not only express the uniqueness of local cultures but also serve as essential carriers for enhancing cultural symbols and promoting public emotional identification [15]. Evaluating the adaptability and value expansion of Inlaid Porcelain in modern contexts is a key measure for assessing its modern applicability. This assessment should focus on the expressive power of the Inlaid Porcelain craft in contemporary contexts and broaden its scope of application. This requires a focused analysis of user feedback across different application scenarios, including visual effects, practicality, and cultural integration, to provide a basis for future design.

The evaluation of economic benefits acts as a key metric for assessing the market performance of the craft and serves as a driving force for the sustainable development of intangible cultural heritage [28,39]. Through product development and the expansion

of its application scope, Inlaid Porcelain has transitioned from the traditional cultural domain into the mass consumer market. Additionally, the involvement of Inlaid Porcelain in cultural tourism projects has demonstrated significant commercial and economic value, such as through cultural theme exhibitions, which enhance visitor engagement and inject vitality into local economic development [62]. Market feedback, sales revenue, and brand recognition are key indicators for assessing the economic benefits of Inlaid Porcelain's adaptability, providing a scientific basis for market strategy adjustments.

Regarding education and dissemination, the focus is on the depth of cultural core element transmission, public recognition, and emotional identification [63]. Regularly assessing the public's ability to recognize Inlaid Porcelain cultural symbols and their dissemination scope is also an important strategy for ensuring the long-term transmission of the craft. Furthermore, education and community involvement are irreplaceable in enhancing cultural influence, allowing more people to experience the charm and practical significance of intangible cultural heritage through experiential education and community projects [64]. Therefore, evaluating the educational role of the craft and social–cultural identification is one of the key factors in assessing the effectiveness of dynamic adaptation.

Therefore, dynamic adaptation evaluation indicators on ICH crafts have been established in terms of four dimensions: technical, functional, market, and education and communication, as described below:

- **Technology Dimension:** (a) Craft Innovation. (b) Craft Adaptability.
- **Function Dimension:** (c) Craft Multifunctionality. (d) Practical Use Value.
- **Market Dimension:** (e) Economic Effects of the Craft. (f) Potential for Integration with Cultural Tourism.
- **Education & Communication:** (g) Educational Role of the Craft. (h) Social and Cultural Recognition.

3. Result

3.1. Dynamic Pathways for Adaptive Development

Traditional static preservation methods for ICH focus on retaining craftsmanship through establishing skill archives and ensuring the integrity of the craft and the authenticity of its cultural significance. This approach effectively prevents the erosion of traditional craftsmanship and cultural connotations caused by excessive commercialization, laying an essential foundation for the transmission of ICH. Nevertheless, this approach exhibits limited adaptability in modern society, restricting its modernization and hindering the expansion of its dissemination channels. Moreover, Inlaid Porcelain relies primarily on the master–apprentice system and family inheritance, emphasizing the specialization and craftsmanship spirit to ensure the authenticity of the culture [57]. However, it is accompanied by limited dissemination channels and scope and slow inheritance efficiency and is prone to skill breaks, which limits the sustainable development of the skills.

According to the SWOT strategy analysis, the dynamic adaptation pathway for Inlaid Porcelain must integrate preservation and innovation. Emphasis should be placed on digital technology, application scenarios, commercialization, and education and communication. Establishing a flexible adaptation framework will facilitate the modernization and broader societal dissemination of intangible cultural heritage crafts (Figure 5). The dynamic adaptation approach focuses on applying digital technology, education and communication, and collaboration with the social environment. It emphasizes the integration of preservation and innovation, expanding public awareness, encouraging diverse participation and resource integration, and enhancing social engagement [65,66]. By preserving its core values, the approach drives modernization and social dissemination, using both

technological and social forces to create a flexible adaptation system and a sustainable development environment for ICH crafts.

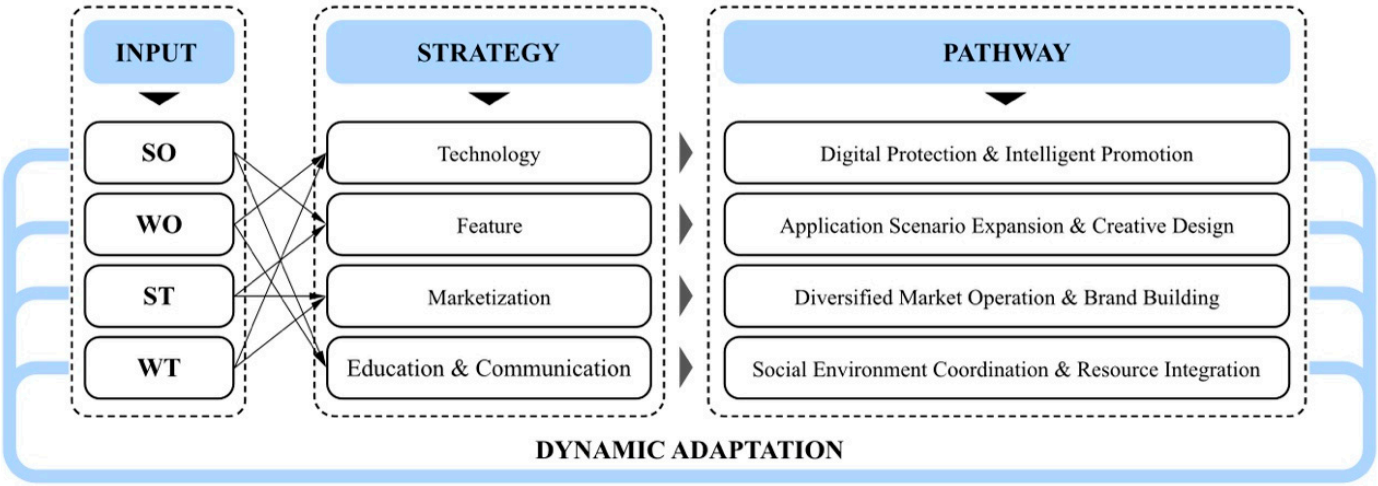


Figure 5. Dynamic pathways for adaptive development. Designed and made by the author.

(i) Optimizing Inlaid Porcelain through Technological Innovation

The traditional Inlaid Porcelain crafts face challenges due to complex procedures and low production efficiency. Therefore, technological innovation in this field prioritizes digital and intelligent solutions to achieve efficient preservation and modernization. Three-dimensional scanning and modeling technologies enable systematic documentation of production workflows and decorative patterns, establishing comprehensive digital archives to support future heritage transmission. Simultaneously, intelligent manufacturing techniques (e.g., laser cutting and 3D printing) optimize production processes by reducing labor intensity and costs while maintaining core artistic characteristics. These advancements enhance material adaptability and production efficiency without compromising cultural authenticity. This approach not only preserves the cultural essence of Inlaid Porcelain but also expands its potential for application in modern architecture and design.

(ii) Functional Expansion of Inlaid Porcelain

Traditional Inlaid Porcelain applications primarily serve decorative purposes in traditional architecture, preserving cultural symbols and functional integrity for physical conservation [3,8,16]. In contrast, its flexible motif selection demonstrates remarkable adaptability to contemporary design requirements [53]. Applications now extend to building facades, interior design, landscape architecture, and public art installations. This expansion enhances spatial aesthetics while amplifying regional cultural symbolism. Consequently, craftsmanship is a cultural conduit in landmark architecture and cultural tourism projects. Furthermore, incorporating its decorative patterns into cultural products (e.g., lighting fixtures, furniture, and packaging) facilitates functional reinterpretation within modern living contexts.

(iii) Market-Oriented Innovation of Inlaid Porcelain

As demand for traditional architecture sharply declines, traditional decorations have become increasingly difficult to adapt to contemporary market needs [6,10,20]. Functional innovation has opened new directions for commercializing Inlaid Porcelain, with diverse applications in various scenarios providing dynamic adaptability and market vitality for the craft. By creating a cultural brand centered around Inlaid Porcelain, the market potential can be explored through market segmentation strategies. On the one hand, positioning

Inlaid Porcelain as a city's IP image can enhance the local cultural tourism industry and diversify its business model. By integrating digital communication tools, such as short video platforms and e-commerce channels, brand influence can be increased. On the other hand, the visual aspects of the craft can be incorporated into jewelry design, furniture design, and cultural product design, opening up new markets for related products.

(iv) Digital Technologies for Education and Communication

The rapid development of digital technologies in recent years has provided opportunities for the growth of intangible cultural heritage crafts. Education and communication have become the core driving forces behind the dynamic adaptation of traditional architectural decoration crafts, injecting new vitality into the inheritance and innovation of Inlaid Porcelain [8,65,67]. This has facilitated the technical protection and cultural dissemination of the craft and profoundly influenced the strengthening of community identity and the deepening of social participation. Through systematic knowledge dissemination and practical education, the promotion of the craft has been facilitated, strengthening local cultural identity and a sense of responsibility. New media dissemination and education can establish a diverse cultural display platform for the craft, overcoming the temporal and spatial limitations of traditional crafts [68]. The expansion of cultural dissemination has further attracted diverse social resources, providing new possibilities for the innovative development of Inlaid Porcelain. This will help accelerate Inlaid Porcelain commercialization and inject cultural innovation into local economic development.

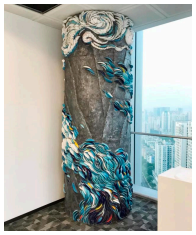
3.2. Dynamic Adaptation Practice of Chaozhou Inlaid Porcelain

As a traditional architectural decorative art, Inlaid Porcelain demonstrates its dynamic adaptation potential through its high degree of artistic freedom and diverse subject matter. Through the selection of materials, innovative techniques, the use of digital media, and diverse expressive forms, Inlaid Porcelain has evolved from a flat decorative art to a multidimensional spatial expression, realizing its intergenerational transmission and development within the framework of modern art and design (Table 5). Innovations in technique, visual representation, and application scenarios have enabled the craft to align with contemporary aesthetic demands. This dynamic adaptability not only revives the craft in modern contexts but also reinforces its core value as a cultural heritage [3,51–53].

Table 5. New pathways for the inheritance and development of Inlaid Porcelain. Examined and summarized by the author.

No	Project	Area	Craft	Features	Images
01	Luo Zhongli Art Museum	Architecture	Flat Inlay	Fusion of Modern Aesthetics and Traditional Skills	

Table 5. *Cont.*

No	Project	Area	Craft	Features	Images
02	Clouds Sea-Stabilizing Needle	Interior	Flat Inlay, Raised Inlay	Innovation of Traditional Crafts	
03	Rhapsody of the Sea	Public Art	Flat Inlay, Raised Inlay	Innovation of Traditional Crafts	
04	Sea Soul	Arts and Crafts	Flat Inlay, Raised Inlay	Innovation of Traditional Crafts	
05	The Inlaid Porcelain Decoration of the Chaozhou Museum	Arts and Crafts/Furnishings	Flat Inlay, Raised Inlay, Three-Dimensional Inlay	Continuation of Traditional Skills	
06	Three Treasures of Chaozhou Packaging	Cultural and Creative Product	Flat Inlay, Raised Inlay, Three-Dimensional Inlay	Modern Innovation	
07	Pengzhou Village Entrance Beautification	Landscape Design	Raised Inlay	Traditional Skills Combined with Modern Design Concepts	

In modern application scenarios, Inlaid Porcelain has gradually transcended the limitations of traditional themes, demonstrating high adaptability and innovation potential. For example, the exterior wall of the Luo Zhongli Art Museum at Sichuan Fine Arts Institute not only imparts a unique artistic aesthetic and cultural symbolism to the building but also enhances the visual tension of the facade. This indicates that Inlaid Porcelain can

be adapted to different architectural types and cultural contexts, becoming an important symbol of local culture.

In interior design and public art fields, the innovative application of Inlaid Porcelain has further expanded its development potential. Chen Xunan, a young artist from Guangdong, combines traditional craftsmanship with modern design concepts, creating works like Clouds Sea-Stabilizing Needle, which were incorporated into the interior decor of the Taikoo Hui office building in Guangzhou. His public art piece, Rhapsody of the Sea, was displayed at the Liwan Station of the Shenzhen Metro, enriching the visual layers of the public space through three-dimensional decoration and dynamic design. These practices demonstrate the unique, expressive ability of Inlaid Porcelain in contemporary art and cultural storytelling in public spaces. It also verifies its broad applicability in commercial spaces, such as the Macau Street restaurant in Guangzhou and the Hong Kong Macau Pier restaurant in Nanning. Furthermore, Chen Xunan's award-winning works, such as Sea Soul, Auspicious Clouds, and Mountain Song, further highlight the diverse expressive potential of Inlaid Porcelain.

Inlaid Porcelain demonstrates its market adaptability through innovative transformation in the field of cultural and creative products. Artistic and creative products such as hanging paintings, figurines, and decorative plates displayed at the Chaozhou Museum not only meet consumer demand for local culture and personalized products but also expand the commercialization path of Inlaid Porcelain. These cultural and creative products, like small art pieces and product packaging, integrate traditional craftsmanship into modern consumer settings, injecting commercial vitality.

3.3. Dynamic Adaptation Evaluation Results

This paper evaluates seven cases of Chaozhou Inlaid Porcelain based on the Dynamic Adaptive Evaluation System for ICH (Table 6).

Table 6. Evaluation of Inlaid Porcelain dynamic adaptation. Examined and summarized by the author.

	a	**b**	**c**	**d**	**e**	**f**	**g**	**h**
Project 01	√	√	√	√	√	√	×	√
Project 02	√	√	√	√	/	/	/	×
Project 03	√	√	√	√	/	√	/	√
Project 04	√	√	×	/	/	√	/	√
Project 05	√	√	/	√	√	√	√	√
Project 06	/	/	/	√	√	√	/	√
Project 07	×	√	×	√	√	√	√	√

Note: √ indicates agreement; × indicates disagreement; / indicates invalid.

According to the overall evaluation results, Chaozhou Inlaid Porcelain demonstrates strong technical and market performance, particularly excelling in innovation, adaptability, and economic viability. Specifically, the craftsmanship has achieved a certain degree of technological innovation in practical projects and possesses a specific capability for market value transformation. This indicates that it maintains strong survival capabilities and development potential in the contemporary environment.

However, its cultural tourism integration and educational dissemination performance remain relatively weak. This limitation hinders its dynamic adaptation practices and challenges its long-term sustainability development. Moreover, in terms of cultural dissemination and promotion, the craft still faces limitations and has yet to establish a systematic communication framework. As a result, Inlaid Porcelain has limited influence among younger demographics and the broader society. In terms of functionality, the multifunctionality and practical value of Inlaid Porcelain still require further enhancement. Its application remains constrained to specific domains, limiting its adaptability to contempo-

rary societal needs. This indicates that Chaozhou Inlaid Porcelain still has considerable room for improvement in cultural tourism integration, educational dissemination, and social–cultural recognition.

Therefore, the adaptive development of Chaozhou Inlaid Porcelain should focus on strengthening social promotion and educational dissemination. Additionally, optimizing functional expansion strategies can enhance its dynamic adaptability, allowing it to better integrate into the diverse demands of contemporary society and achieve sustainable development. Expanding cultural tourism collaboration models and strengthening educational and cultural dissemination can further enhance the dynamic adaptability of this craft. For example, interdisciplinary collaborations in developing artistic and creative products can expand the application of Inlaid Porcelain across public art, architectural ornamentation, and everyday functional objects. By diversifying functional design, the craft can gain greater practical value, enhance its market appeal, and thus promote its continuous development in modern society.

4. Discussion

In the current dynamic adaptation process of the Inlaid Porcelain, its performance across technology, functionality, market, education, and dissemination remains inconsistent. Establishing a comprehensive and responsive feedback mechanism is essential for identifying challenges in the adaptation process and making necessary adjustments. By leveraging the efficiency and simplicity of SWOT analysis, deficiencies in the adaptation process can be swiftly identified, allowing for the development of a systematic feedback mechanism at the macro level. Integrating insights from the earlier SWOT analysis, case studies, and evaluation indicators, the feedback mechanism for Inlaid Porcelain should be structured across three levels: policy, market, and heritage transmission. The policy feedback mechanism ensures the stability of market feedback, while market feedback provides sustainable momentum for the inheritance of the craft. In turn, the inheritance feedback mechanism is a prerequisite for policy feedback. The three feedback mechanisms form a closed loop to provide sustainable momentum for the craft to adapt to modern society (Figure 6).

Figure 6. Feedback mechanisms of Inlaid Porcelain dynamic adaptation. Designed and made by the author.

Establish a policy feedback mechanism through a dynamic theoretical model to drive public support for the protection and innovation of Inlaid Porcelain. Based on the evalua-

tion results of the cultural heritage dimension, regularly assess the efficiency of cultural preservation programs and their social impact, optimize subsidies for inheritor training, allocate educational resources, and determine the direction of cultural heritage activities [69]. Adjust policies promptly to address issues such as the shortage of inheritors and inefficiencies in dissemination and education [70]. Simultaneously, promote interdepartmental collaboration in the cultural and tourism sectors, integrating resources to support the application of Inlaid Porcelain in cultural tourism projects. Continuously monitor policies and adjust strategies through dynamic feedback to ensure the long-term effectiveness of preservation and innovation measures for intangible heritage techniques, strengthening the craft's cultural dissemination and public recognition in society [71].

Secondly, establishing a market feedback mechanism serves as a core means of evaluating the performance of Inlaid Porcelain in the modern consumer market. Product optimization and business strategy adjustments can be promoted by dynamically evaluating sales data, user experience, and market demand fluctuations [72]. Based on the evaluation results from functional utility and economic efficiency dimensions, an assessment mechanism should be established to monitor the market performance of Inlaid Porcelain products across different consumer segments. By analyzing consumer behavior and user feedback, product design strategies can be adjusted promptly, optimizing the direction of cultural and creative products and enhancing the brand value of intangible cultural heritage. Meanwhile, enhancing interactive facilities in cultural tourism projects, combined with dynamic evaluation and adjustment of the feedback mechanism, can balance commercialization and cultural heritage preservation.

The inheritance feedback mechanism aims to ensure the sustainability of intergenerational transmission of the Inlaid Porcelain. By integrating policy and market feedback mechanisms and leveraging advantages in dissemination, education, resource allocation, and market strategies, the focus is on addressing the sustainability of inheritor training. Policy support provides financial security and educational resources to optimize the system for training inheritors [64]. Market mechanisms create a broader career development space for inheritors, expanding market demand while offering financial incentives and social recognition. The core of inheritance feedback lies in balancing the stability of policy resources with the dynamism of market demand to achieve flexible adjustments in the transmission model.

5. Conclusions

This study, grounded in dynamic adaptation theory, employs a mixed-method approach that integrates qualitative and quantitative analysis to explore the dynamic adaptation pathway of Chaozhou Inlaid Porcelain comprehensively. Through SWOT analysis, case studies, and the construction of a feedback mechanism, this research identifies the innovative development pathways and sustainable strategies for Inlaid Porcelain in modern society. The results suggest that Inlaid Porcelain's adaptability is fundamentally rooted in its capacity to bridge traditional craftsmanship with contemporary demands. Integrating digital technologies, such as digitization techniques, not only facilitates the efficient preservation of the craft but also enhances production efficiency and material adaptability. Additionally, the diversified development of this craft in modern applications, such as architectural decoration, public art, and cultural and creative products, fully demonstrates its potential to meet contemporary aesthetic and functional demands.

However, the study also reveals a challenge in balancing the commercialization of Inlaid Porcelain with preserving its cultural authenticity. This paper proposes a dynamic feedback mechanism structured around policy, market, and inheritance feedback to address this issue. This mechanism underscores the role of policy support in safeguarding

the foundation of craft transmission while market dynamics enhance its dissemination and application. Additionally, it integrates educational and communication resources to address the shortage of inheritors, ensuring intergenerational transmission and adaptive continuity. Meanwhile, the dynamic adaptation pathways of Inlaid Porcelain suggest that ICH techniques can achieve synergistic cultural, economic, and social benefits through functional expansion and market-driven operations. Specifically, on the one hand, dissemination and education play a key role in strengthening public cultural identity with ICH crafts. On the other hand, the market and inheritance feedback mechanisms enhance economic benefits and transmission incentives, ensuring the craft's sustainable application across various contexts.

By constructing a dynamic adaptation model, this study provides a theoretical basis for preserving and revitalizing Inlaid Porcelain. It offers a practical reference for the dynamic adaptation of other ICH practices. However, this study is subject to certain limitations, including a restricted research scope, limited empirical validation of the model, and the need for a more comprehensive assessment of the long-term effectiveness of the dynamic feedback mechanism. Specifically, the study primarily focuses on Inlaid Porcelain and does not comprehensively encompass other traditional decorative arts of the Lingnan region. The operability and applicability of the dynamic adaptation model require further empirical validation. Additionally, the long-term efficacy of the dynamic feedback mechanism necessitates ongoing monitoring and evaluation. Future research should expand its scope to encompass a broader range of cultural regions, strengthen the empirical validation of the model, and propose more precise refinements to enhance the validity of the feedback mechanism, thereby improving the scientific rigor and practical value of the study.

Author Contributions: Conceptualization, Y.M.; methodology, Y.M.; software, Y.M.; validation, Y.M.; formal analysis, Y.M.; investigation, Y.M.; resources, Y.M.; data curation, Y.M.; writing—original draft, Y.M.; writing—review and editing, R.R.; visualization, Y.M.; supervision, R.R.; project administration, R.R. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data are contained within the article.

Conflicts of Interest: The authors declare no conflicts of interest.

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