

Research on the Driving Mechanism and Evolution Path of Digital Economy Empowering the High-quality Development of Rural Cultural Industry - Based on the Field Survey of Four Cities and Four Villages in Guangxi's Xijiang River Basin

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Abstract: *As a strong impetus for the development and prosperity of China's culture, rural cultural industry is facing the issues of insufficient development kinetic energy, lack of talent team, and imbalance between cultural protection and economic development. The integration of digital economy stimulates the innovation vitality of cultural industry and effectively promotes the high-quality development of rural cultural industry. This study establishes a theoretical framework for the dynamic process of digital economy to promote the high-quality development of rural cultural industry, makes a systematic and comprehensive analysis of the driving mechanism and evolution process of digital economy empowering the development of rural cultural industry, and puts forward the suggestions of improving the transformation efficiency of cultural resources, strengthening the synergy drive of multiple parties, and vigorously cultivating professional talents.*

Keywords: Digital economy; Rural cultural industry; High-quality development.

1. INTRODUCTION

The high-quality development of rural cultural industry is an important part of rural revitalization, and is also a strong driving force for the development and prosperity of China's socialist culture. The pattern of rural cultural industry mainly relies on rural resources to form the business model of “offline consumption + offline purchase”, which can only increase income on a small scale, and it is difficult to pull the rural economy on a large scale [1]. From the current situation of China's rural cultural industry development, the rural cultural industry is still exposed to the lack of strategic planning and development vision, the related industry linkage is not high, the lack of capital investment, cultural protection and economic development imbalance and other development problems need to be solved [2]. Nowadays, China's digital economy is developing rapidly, and the process of digital industrialization and industrial digitization continues to deepen. Based on this background, the central government has put forward a series of proposals to promote digitalization and digital economy, such as “promoting the in-depth integration of the cultural industry and digital economy” and “stimulating the innovation vitality of digital cultural industry”. Based on this background, the central government has put forward a series of policies to promote the development of rural cultural industry empowered by digitization, and in 2017, the Ministry of Culture explicitly put forward the concept of “digital cultural industry” in the Guiding Opinions on Promoting the Innovative Development of Digital Cultural Industry, proposing that we should take the innovative development of digital cultural industry as a hand to promote the supply-side structural reform of the cultural field, cultivate the cultural industry, and promote the development of cultural industry. The concept of “digital culture industry” is clearly mentioned in the Guiding Opinions on the Innovative Development of Digital Culture Industry. Under the guidance of the policy, digital economy and culture industry have been rapidly and deeply integrated, giving rise to a brand-new industry model.

The academic research on digital economy and rural cultural industry mainly starts from the following perspectives: firstly, it explores the connotation of rural cultural industry from the theoretical level. Taking farmers as the main body, rooted in the fertile soil of rich cultural resources in the countryside, with the help of modern science and technology, digital technology to transform cultural resources into cultural products and services of the industry, both economic and social benefits, diverse types, rich forms of expression, and participation in the main

body of the pluralism [3]. Second, analyze the development status of rural cultural industry from the practical level. There are unscientific planning and management of industrial projects in the development of rural cultural industry [4], cultural resources are not fully utilized [5], and there is a lack of scientific and perfect talent team [6]. Third, research on the path of promoting the development of rural cultural industry. Research shows that the digital economy can empower the development of rural cultural industry. The digital economy is the core essence of promoting the construction of digital China and digital countryside, do a good job of overall planning for the development of the digital economy, and play a leading role in the policy system, which has a huge kinetic energy for promoting the common prosperity of spiritual life [7].

In view of this, this study intends to explore the following three aspects: firstly, to construct a theoretical framework of digital economy empowering the high-quality development of rural cultural industry, and to clarify its intrinsic mechanism; secondly, to utilize a multi-case comparative research method, to deconstruct the key path of the transformation and upgrading of the rural cultural industry driven by the digital economy; and lastly, to put forward policy recommendations based on the conclusions of this study to promote the high-quality development of the rural cultural industry driven by the digital economy. Finally, based on the conclusions of the study, policy recommendations are proposed to promote the high-quality development of rural cultural industry by digital economy.

2. THEORETICAL FOUNDATION AND FRAMEWORK OF DIGITAL ECONOMY EMPOWERING THE HIGH-QUALITY DEVELOPMENT OF RURAL CULTURAL INDUSTRY

2.1 Theoretical Foundations

2.1.1 Theories of sustainable development

The premise of sustainable development is development, which reflects the strength of the country and the wealth of society, and its purpose is to promote human welfare and improve the quality of life of human beings [8]. In the operation of sustainable development, people need to transform the original economic system to achieve the optimal allocation of resources to promote economic development [9]. In developing and utilizing all kinds of natural resources to promote economic growth, human beings must fully respect nature and act in accordance with the laws of nature [10].

2.1.2 New endogenous development theory

Digital village construction should not only make full use of external resources such as digital technology, funds and talents, but also rely on the internal resource capacity of the village, play the role of villagers as the main body of the construction, and form an internally and externally linked development model [11]. The new endogenous development theory advocates multiple actors [12], through the activation of local natural and cultural resource endowment, organic integration of external economic, technological and intellectual support, focusing on cultivating local capital accumulation, innovation and entrepreneurial capacity and adaptive institutional system [13], to enhance the farmers' sense of ownership of the rural construction, and to promote local development [14].

2.1.3 Innovation ecosystem theory

The innovation ecosystem is a symbiotic coexistence system in which the innovation system and the institutional system promote and influence each other [15]. Since innovation is a cultural characteristic, culture is a key component of the innovation ecosystem [16]. Based on culture, supported by science and technology, and targeted by dissemination, material exchange and information transfer between the subjects related to cultural resources and the innovation environment form a complex dynamic and balanced innovation ecosystem of dynamic evolution and symbiosis, which focuses on cultural continuity and industrial innovation [17]. With the changes of the environment, the innovation ecosystem can adjust itself on the basis of the original, constantly evolve, so as to move from disorder to order, and form a more advanced orderly system.

2.2 Analytical Paradigm of the Driving Mechanism: Technology-subject-value

Regarding the study on the driving mechanism of digital economy empowering the high-quality development of

cultural industry, WAN Shiwei and TANG Kai [18] (2022) proposed the “digital synergy mechanism” with efficiency improvement, industrial change and structural optimization as the core elements. Specifically to the rural reality, the digital economy and the development of rural cultural industry shows the trend of deep integration and two-way empowerment can become a regular operating mechanism for the development of rural cultural industry in the future? Based on the new endogenous development theory, this study combines the analytical logic of “digital-subject-resource-value” [19], and proposes that “technology-subject-value” is composed of three elements: “technology-subject-value”, and “technology-subject-value”, and “technology-subject-value”. “The logical analytical paradigm composed of three elements is proposed.

Technology. The free flow and optimal allocation of cultural production factors is a necessary condition for the high-quality development of the cultural industry. Digital technology by virtue of its “virtualization” characteristics of innovative countryside cultural industry time, space and unlimited extension. First, optimize the integration of industrial resources, reconfigure the logic of cultural resource allocation. Digital technology through the construction of 5G network, cultural big data center and other infrastructures, the dispersed rural non-heritage, folklore and other resources into a unified management of digital assets. Secondly, upgrading the supply of products and services and activating the endogenous power of the cultural market. The application of technology promotes the transformation of rural cultural products from a single physical object to a diversified experience. Live e-commerce and social platforms directly connect producers and consumers, reducing circulation costs and expanding market coverage.

Subject. Based on the connotation of the new endogenous development theory, it can be seen that resources and participation are the core elements of the new endogenous development theory [13]. The process of digitally empowered rural construction is a collaborative participation process of multiple subjects such as grassroots party and government institutions, market organizations, social forces and rural elites, and it is a necessary choice to promote urban-rural integrated development [20]. On the one hand, compared with traditional information technology, digital technology is more effective in breaking through the rural spatial barriers and villagers' information islands, and promoting the collaboration and interaction of “semi-mature society” [21]. On the other hand, with the help of policy embedding and platform sharing, digital technology empowers actors to take certain actions, and reshapes the way humans perceive time, space, communication and exchange.

Value. Value co-creation refers to the process in which enterprises and users jointly participate in defining and creating value [22]. Value co-creation in the cultural industry under the digital economy emphasizes resource integration and interactive synchronization, breaks through the boundary of a single cultural enterprise, and extends to the entire life cycle of cultural products or services. The traditional one-way governance model is difficult to adapt to the needs of rural cultural development, while the value co-creation of multiple subjects interacting on an equal footing effectively solves the current power imbalance or elite capture affecting the redistribution mechanism and other public cultural service problems [23].

2.3 Analytical Paradigm for Evolutionary Paths: Production Change - business Convergence

The innovation ecosystem theory puts the collaboration of multiple subjects at the core, emphasizing that the optimal industrial organizational structure and innovation behavior should be achieved internally, and the dynamic coordination with the external environment should also be realized [24]. The cultural industry provides consumers with new value elements through the creation of new products and integration of new business models, realizing the value cycle of cultural products from single product circle to cross-industry. In this study, we will construct the logical paradigm of “production change - industry integration” to reveal the evolutionary path of rural cultural industry development empowered by the digital economy.

Changes in production. Culture is rooted in the mode of production, both along with the change of the mode of production and obtain new forms, and also along with the development of the mode of production itself constantly tends to mature. Cultural form is the organic fusion of ideology and cultural form, and its development process is deeply influenced by the mode of production. Specifically manifested in the following aspects: first, the production change stimulates the villagers' cultural self-consciousness. The development of the digital economy promotes the transformation of traditional agricultural production methods to modernization, in this process, villagers participate in digital production practices, gradually deepen the knowledge of the survival of the local culture, clear their own cultural rights and value demands. Secondly, the level of production methods restricts the development of cultural forms. Currently, the rural cultural industry is still dominated by family workshops and small-scale operations, with serious homogenization of products. Digital technology, through the standardized

production process, breaks through the restrictions of traditional production conditions and provides a material basis for the innovative expression of cultural forms. Thirdly, digital technology accelerates the intergenerational transformation of culture. Through virtual reality technology to restore endangered cultural scenes, to realize the intergenerational inheritance of cultural forms. At the same time, based on user behavior data analysis, the direction of cultural content creation is dynamically adjusted.

Industry integration. The quality of cultural industry integration depends on whether the factor flow is reasonable or not, and the factor agglomeration is to make various factors work together to realize the value of the factors, and its essence is a process of integrated innovation [25]. Industry integration covers the following three aspects: first, “string” the cultural industry chain with digital technology. The development and application of modern technology, such as mobile information, has given rise to creative design, media, animation, film and television, electronic publishing, webcasting and other forms of industrial aggregation. Second, let the culture “mixed” into one, two or three industries. The primary industry as the base, the secondary industry to do extension, the tertiary industry to promote the development of the spatial layout to build a dynamic and innovative competitiveness of the new industry. Third, by resource integration “revitalization” of rural ecology. The dispersed skills, idle old houses, local stories of these “fragmented” resources centralized management, so that craftsmen to receive orders, the old yard into a bed and breakfast, folk activities to engage in the reservation.

2.4 Construction of an Analytical Framework for the High-quality Development of Rural Cultural Industries Empowered by the Digital Economy

Based on the above analysis, this study attempts to construct a framework for analyzing the dynamic process of digital economy-enabled high-quality development of rural cultural industry by elaborating the driving mechanism and evolution path of digital economy-enabled high-quality development of rural cultural industry on the basis of sustainable development theory, new endogenous development theory and innovation ecosystem theory. Combining the above theoretical analysis and logical paradigm, this study combines the logical paradigm of “technology-subject-value” to construct a theoretical framework for analyzing the dynamic process of digital economy empowering the high-quality development of rural cultural industry (as shown in Figure 1). However, whether this framework can comprehensively reflect the development process of rural cultural industry empowered by digital economy still needs to be further verified through specific cases. In summary, this study systematically analyzes the driving mechanism and evolution path of digital economy-enabled high-quality development of rural cultural industry by analyzing four typical cases.

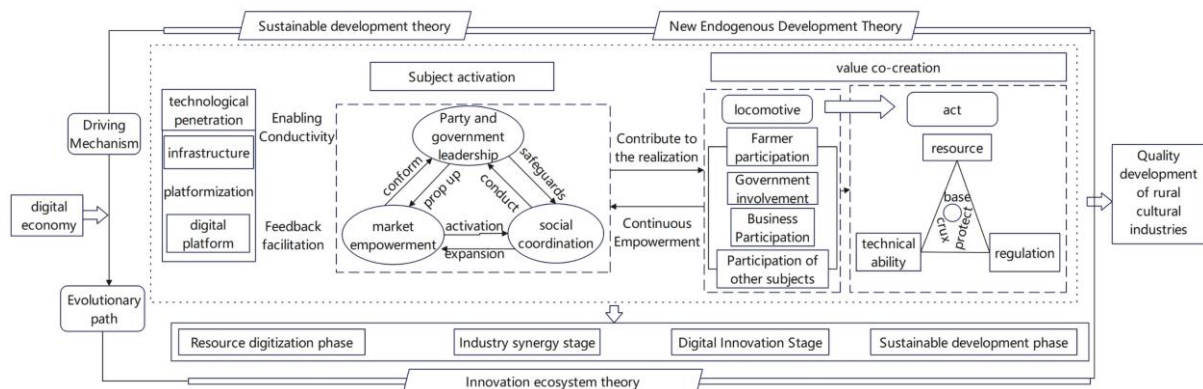


Figure 1: A Theoretical Framework for Digital Economy Enabling High-Quality Development of Rural Cultural Industries

3. RESEARCH METHODOLOGY AND CASE BACKGROUND

3.1 Selection of Cases

This study adopts diversified data collection means to obtain case information: first, multi-dimensional information collection on the research subjects through semi-structured in-depth interview method. Using the participatory field observation method to obtain on-site contextual data, the research team went to Jinghua Village, Dapeng Township, Pingnan County, Guigang City, Guilin City, Dazhai Village, Longji Township, Longsheng Autonomous County, Guilin City, Guanjiang Dong Autonomous County, Liuzhou City, Guandong Village, Linxi Township, Sanjiang Dong Autonomous County, Liuzhou City and Xiaya Geological and Cultural Village, Jinyao

Township, Fengshan County, Hechi City, successively on July 23-August 2, 2024, and through on-line return interviews to further confirm relevant information, focusing on multiple semi-structured interviews with village cadres, villagers, and tourists in the four villages. Second, the original corpus was structured by combining the three-level coding technique. In total, 266 minutes of valid interviews were obtained and 567 valid questionnaires were collected to form the primary data needed for the study. Third, secondary data were collected. Information related to the case sample was collected from the CNKI database and public media reports, and compared and supplemented.

3.2 Case Introduction

Case 1: Jinghua Village, Dapeng Town, Pingnan County, Guigang City, realizes integrated development through the three-dimensional linkage model of “characteristic industry + rural tourism + digital marketing”. Relying on natural resource endowment, the village focuses on cultivating specialty agriculture such as tea, star anise and bamboo shoots, and cooperates with Gaoping Village, which is the first village of bonsai in Guangxi, to build a bonsai industry cluster, forming a planting scale of more than 60 hectares with an annual output value of more than 8 million yuan, and was awarded as the key village of rural tourism in Guangxi in 2023.

Case 2: Guandong Village, Linxi Town, Sanjiang Dong Autonomous County, Liuzhou City, relies on the “Snow Bright Project” to build a digital village comprehensive service platform, realizes grid-based governance through the linkage of three screen terminals, and deploys an intelligent monitoring network in the river section and a two-dimensional code garbage traceability system to enhance the effectiveness of environmental management. With the Dong culture as the core resource, the village has innovated the mechanism of “civilization practice + culture and tourism integration”, which has led to an average household income increase of nearly 700 yuan. The village has been awarded the national title of “National Civilized Village” and other national titles.

Case 3: Dazhai Village, Longji Town, Longsheng Autonomous County, Guilin City, builds a smart tourism ecosystem with 5G network coverage, and realizes cloud-based dissemination of festivals and activities through “5G + slow live broadcast” technology. Relying on the endowment of Hongyao cultural resources, the village has transformed national non-legacy skills into immersive cultural and tourism business, and has been selected as the “Best Tourism Village” by the United Nations World Tourism Organization. Simultaneously deepening the development of terraced rice field resources, through the 7% dividend mechanism of ticket income and the “five-dimensional income” distribution system, forming a closed loop of ecological protection, farming heritage and tourism economy.

In case 4, the Xiaya Geological and Cultural Village in Jinya Yao Township, Fengshan County, Hechi City, relies on digital governance tools to improve the effectiveness of rural management. Focusing on the ethnic cultural resources of the “blue-clothed Zhuang”, the village uses live e-commerce to integrate traditional dress patterns into the design of modern consumer goods, realizing home-based employment for women and improving the well-being of left-behind groups. Simultaneously integrating the resources of more than 20 geological relics, developing big data for popularization of science and compiling professional reading materials such as stratigraphic profiles and paleontological fossils.

4. THE DRIVING MECHANISM OF DIGITAL ECONOMY ENABLING HIGH-QUALITY DEVELOPMENT OF RURAL CULTURAL INDUSTRY

4.1 The Digital Economy, by Driving the Penetration and Application of Technology, in Turn Promotes the High-quality Development of Rural Cultural Industries

Driven by the wave of digitization, the digital economy has become the core engine for promoting the development of rural cultural industries, changing the development path of rural cultural industries and promoting technological integration and innovation. First, the digital economy promotes the construction of informationization infrastructure. By deploying 5G outlets, building cloud computing platforms, and setting up IoT nodes, rural areas have broken information barriers and realized data sharing. Case 2 Guandong Village has rich Dong non-legacy resources, and to enhance the promotion efficiency of non-legacy culture, fiber-optic network was laid and additional 5G base stations were set up. Real-time broadcasting of village affairs information is realized through policy-pushing loudspeakers. Second, the digital economy promotes digital platforms and resource docking. Rural cultural products are often trapped locally due to limited channels, but digital platforms can help them “go out”. In case 2, Shi Mou, secretary of the party branch of Guandong Village, led the village

committee members to actively learn from the development experience of outstanding villages, and took the initiative to promote the construction of digital platforms by virtue of a strong “digital awareness” and forward-looking thinking. Thirdly, the digital economy promotes technological integration and innovation: Web, database, mobile payment and remote communication technologies are cross-fertilized by means of the digital economy, giving rise to a mode of operation that integrates electronic and networked commercial activities. Case 3 Dazhai Village villagers Yu Mou said: “Our village used to be high and far away, and then repaired the road, attracted enterprises to engage in tourism with us, but also get a share of the dividends, the hearts of the people can be beautiful!” Based on this, the villagers are more motivated to put digital means to practical use, to promote the development of rural revitalization.

4.2 The Digital Economy Promotes the High-quality Development of Rural Cultural Industries by Activating the Synergy of Multiple Subjects

The high-quality development of rural cultural industry needs to break the predicament of government, enterprises, villagers and other subjects “working separately”. The connection of digital economy builds a bridge for the collaboration of multiple subjects, forming a synergistic ecology of “co-creation and sharing”. First, the digital economy to activate the effectiveness of party and government coordination. Relying on the digital platform to break through the data barriers of the cultural tourism, civil affairs and other departments, the construction of cross-level and cross-departmental coordination of resources, to realize the precise placement of policy funds and real-time supervision of the project. Case 1 Jinghua Village takes grass-roots party building as the lead, transforming the advantages of party organizations into advantages in rural development. Simultaneously build the cultural and tourism industry party service platform, rights protection platform and information consulting platform, organize the party volunteers to actively carry out services, for the local cultural and tourism industry to embrace the development of cohesion. Second, the digital economy activates market innovation momentum. China's rural market players have expanded from the traditional collective economy, cooperatives, township enterprises, etc., to private e-commerce, lodging store owners, rural netizens, live anchors and other emerging subjects, and these endogenous forces together constitute the pluralistic main body of the construction of the digital village. Case 4 villagers in Xiaya Village, Ms. Wei said: “Earlier we ‘blue clothes Zhuang’ clothing pattern, but also in their own village to wear, and then the village to engage in live broadcasting, our clothes on the Tong flower, butterfly pattern drumming to the bag, cheongsam. Now not only clothes sold to the provinces, even the dolls on vacation are rushing to learn embroidery - the old craft has been passed on, the head of the house can also be more income.” It can be seen that market players with innovative models to integrate cultural resources, activate the economic vitality of the countryside, but also for the inheritance of traditional culture to inject sustainable power. Third, the digital economy activates the vitality of social participation. The digital process reduces the participation threshold of organizations and enhances information transparency. And social organizations play the role of intermediary, coordination and communication between the government, the market and the villagers, which helps to improve the governance efficiency of each subject. Case 3: Pan Mou, the former secretary of Dazhai Village, led the villagers to actively form the “Hongyao Association” and continued to engage in the research of Hongyao culture. Relying on the “Red Yao Association”, the association initiated the practice of reforming customs in all Yao villages, promoting the formulation of relevant conventions, clarifying the upper limit of gifts and the scale of banquets, and implementing the reform through mechanisms such as the “Cultural Council” and the “Villagers' Supervisory Group”. Through mechanisms such as “cultural councils” and “villagers' supervisory groups”, the reforms have been implemented. This shows that social organizations have strengthened the practical effectiveness of cultural governance in villages through the establishment of multi-party collaborative networks, and have achieved a dynamic balance between the renewal of traditional customs and the demands of modernization.

4.3 The Digital Economy Promotes the High-quality Development of the Rural Cultural Industry by Building an Ecology of Value Co-creation

The in-depth development of the digital economy has given rise to a new model of value co-creation in the cultural industry, which flexibly responds to personalized, diversified and instantaneous consumption demands and effectively supports the precise docking of customized services and niche markets. First, the digital economy promotes the extensive participation of multiple subjects. As rural culture enters a new market, the main body of value creation and value-added paths are deeply reconfigured, and the cultural value chain shifts from closed to open, with inheritors, governments, enterprises, consumers, communities, experts, scholars, and the media actively joining in cultural value creation and value-added activities. Case 1: The villagers of Jinghua Village invested their forest resources in the tourism company, changing from “bystanders” to “shareholders + employees” and actively

participating in the creation of the village enterprise. The village two committees coordinate villagers and neighboring villages through the digital platform to jointly create a “ten-mile bonsai corridor”. Second, the digital economy drives the linkage of ecological resources. The overall evolution of cultural ecology is driven by the overall changes in the village society, and the interaction of internal and external factors results in the replacement of new and old cultural elements and changes in cultural entities. Case 4 Xiaya Village 2022 renovation of the main road along the houses into the blue color tone architectural style, the environmental landscape continues to improve. Ecological governance promotes the transformation of ecological resources to cultural identity through activating traditional customs and recreating cultural landscapes. Thirdly, the digital economy deepens the value of cultural content. By shaping the unique and richly connoted vernacular culture and utilizing emerging means of communication, the rural cultural content is flexibly, vividly and three-dimensionally disseminated. Case 4 Xiaya Village is positioned to build a geological culture village as the goal, and in 2021, the village collectively built a science museum, gallery and signage, integrating geological knowledge into interesting stories and interactive devices, especially allowing villagers to tell their own stories and actively participate in the development and construction of their hometowns.

5. EVOLUTIONARY PATH AND POLICY RECOMMENDATIONS FOR THE HIGH-QUALITY DEVELOPMENT OF RURAL CULTURAL INDUSTRIES EMPOWERED BY THE DIGITAL ECONOMY

5.1 The Evolutionary Path of Digital Economy Enabling High-Quality Development of Rural Cultural Industry

5.1.1 Digital changes in rural cultural production methods

The digital transformation of rural cultural production methods is profoundly changing the traditional development model. In the context of the rural revitalization strategy, digital technology provides a new path for the protection of cultural resources and industrial development. First, the stage of resource digitization. Systematically record the production process of traditional handicrafts through cell phones, cameras and other portable devices, and collect audio-visual materials of folk songs, dialects and other intangible culture. Organize the collected materials to build a rural cultural database that can be queried online. Second, production intelligence stage. Optimize the efficiency of traditional crafts pattern design. Configure basic automated production equipment to replace some of the repetitive manual processes. Establish a digital order management system to coordinate scattered production tasks. Third, industrial platform integration. Utilize social media to carry out live promotion, directly connecting to the needs of urban consumers. Establish online collaboration groups for production cooperatives to realize instant communication on order allocation and technical exchange.

5.1.2 Rural cultural industry innovation and integration development

In the context of the rapid development of the digital economy, the rural cultural industry is experiencing an important transformation of industry innovation and integration development. First, the stage of integration of agricultural culture and tourism. Develop experiential tourism projects centered on farming culture, and transform traditional festival customs into immersive interactive activities. Build an e-commerce platform for rural handicrafts, realizing the direct connection between non-heritage products and the urban consumer market. Build digital rural cultural pavilions to systematically display local cultural characteristics through video materials. Second, the stage of industrial synergy and upgrading. Establish rural handicraft cooperatives to integrate scattered production resources and unify quality standards. Docking with urban design organizations to integrate modern aesthetic elements into the development of traditional handicrafts. Establish a co-branding system of “culture + agricultural products”, and implant local cultural symbols in packaging design, marketing and promotion. Third, ecologically sustainable development stage. Restore the ecological landscape of traditional architectural communities and preserve the original village pattern. Promote the use of indigenous environmentally friendly materials for the construction of cultural facilities. Establish a waste recycling system for handicraft production.

5.2 Policy Recommendations on Digital Economy Enabling High-Quality Development of Rural Cultural Industries

5.2.1 Gradually optimize the digital production process and comprehensively promote industrial transformation and upgrading

Focusing on the improvement of the transformation efficiency of cultural resources, we have constructed a closed loop of digitalized production through technological iteration and process reengineering. First, deploy an intelligent perception network of cultural resources. Promote the deployment of intelligent sensors in rural non-heritage workshops, cultural heritage sites and other scenes in the Xijiang River Basin, and build a whole-area monitoring system integrating acoustic acquisition, dynamic capture and spectral analysis. Second, build a cultural big data system. Integrate cultural, tourism, agricultural and ecological data from villages in the Xijiang River Basin, develop a data warehouse covering resource mapping, production archives and market feedback, and establish a standardized process for data cleaning, labeling and mining. Third, implement the digital twin technology integration project. Use virtual simulation technology to build a digital system for cultural production, realizing visual monitoring of the process and optimal allocation of production factors.

5.2.2 Increase the supply of financial resources to alleviate the difficulties of financing vernacular culture

First, optimizing basic rural credit services. Promote grass-roots financial institutions to set up special loan windows for rural culture, customize simple approval processes for non-genetic inheritance, folkloric tourism and other subsectors, and establish a joint guarantee and loan mechanism in conjunction with agricultural cooperatives and village collectives. Second, establish a tiered risk mitigation system. The county government will take the lead in setting up a rural cultural credit risk compensation fund to compensate losses proportionally to small cultural loans issued by financial institutions. Banks will be guided to issue credit loans to rural cultural enterprises with stable operations. Third, sinking digital financial service capacity. Utilizing the county government data platform to integrate rural cultural enterprises' information on tax payment, electricity consumption, labor, etc., and constructing a simple credit evaluation model to assist financial institutions in rapid lending. Popularize online loan operation guidelines through village-level broadcasts, township service points and other channels.

5.2.3 Multi-party collaboration to build cultural ecology, innovative activation of the value of rural resources

First, the ecological integration of culture and tourism is driven by a sense of multi-party synergy, highlighting the initiative of operators, tourists and villagers. Through digital innovation to create rural characteristic IP, refine cultural symbols to develop cultural tourism products with connotation, and use blockchain technology to strengthen digital copyright protection. Secondly, the digital economy promotes the development of cross-border integration of industries. Reconstruct the industry chain through cross-border integration, and use virtual scene restoration, interactive exhibition and online cloud tour platform to realize cultural digital inheritance. Third, with scientific and technological innovation as the core, integrating the strengths of the government, enterprises, research institutions and the public. Through intelligent data analysis to explore consumer demand, guide consumers to deeply participate in product design, dissemination and production.

5.2.4 Strengthening digital humanities cultivation efforts to effectively support cultural innovation and development

In order to realize the development of rural cultural industry, it is necessary to start from the perspective of subjective talents, combined with the organization and coordination mechanism of the government and village collectives, and make efforts to introduce and cultivate rural digital talents. First, introduce digital talents to build cultural villages. The government implements tax incentives, housing subsidies and education subsidy measures, and provides financial support for entrepreneurship. Adopt a combination of online and offline teaching modes and develop appropriate online courses on digital skills. Give full play to the leading role of local talents in the digitization process of the cultural industry in the countryside, and drive the deep integration of the cultural industry and digitization. Secondly, strengthen planning and management, consolidate the cornerstone of the cultural industry, and establish the foundation of talents. By fostering the rural cultural market, strengthening the synergy of talent policies and information sharing, and taking the needs of villagers as the guide, we will widely collect opinions through the villagers' meeting and other channels, and summarize and promote the successful experience and typical mode of talent introduction in a timely manner.

6. CONCLUSION

The deep integration of the digital economy has opened up a new development path for the rural cultural industry, digital technology not only helps villagers to transform cultural resources such as non-heritage, folklore and other cultural resources into market value, but also through the live broadcasting of e-commerce, online platforms and

other tools, so that the traditional crafts out of the mountains, connecting the wider consumer groups. In the future, villages should continue to make efforts in the following areas: First, improve the digital infrastructure, lower the threshold of villagers to participate, so that more “hidden in the boudoir” of cultural resources to be seen; second is a balance between the protection and development, with the help of digital archives, intelligent monitoring and other technologies to retain the original cultural appearance, to avoid excessive commercialization erosion of cultural roots; third is to strengthen policy Third, strengthen the policy to guide and encourage enterprises, social organizations and villagers to form a long-term collaboration mechanism, so that the cultural benefits to benefit more groups. Only by allowing digital tools to truly serve the inheritance and innovation of local culture can we realize the sustainable goal of “retaining nostalgia and seeing development”.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest relevant to this study.

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