

# **The Path of Digital Economy Enabling Rural Tourism and Increasing Farmers' Income: A Case Study of Hongcun Village in Mount Huangshan**

## **-- From the Perspective of Rural Revitalization**

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### **Abstract**

Against the backdrop of rural revitalization, the development of the digital economy is becoming increasingly intense, providing new tourism formats and models for the high-quality development of rural tourism. This paper takes Hongcun Town, Mount Huangshan, Anhui Province as the research site, and adopts online and offline analysis methods, such as swot. This article analyzes the problems and causes of the development of rural tourism economy in Hongcun Town, and proposes countermeasures and suggestions to promote the optimization and development of rural tourism economy. The research believes that there are multiple contradictions in Mount Huangshan Hongcun Village at present, and it needs to start and develop in three ways in the future: first, enrich the tourism+model, create new growth points, second, intelligentize the digital countryside, improve the efficiency of rural governance, third, diversify tourism formats, improve tourism experience, drive farmers' income, and promote high-quality tourism development.

### **Keywords**

Rural revitalization, Tourism industry, SWOT analysis.

## **1. Introduction**

The rural revitalization strategy is a major strategic deployment implemented by China to solve the "three rural issues" and promote the modernization of agriculture and rural areas. After the proposal of the rural revitalization strategy at the 19th National Congress, the issue of promoting rural tourism development and increasing farmers' income under the background of rural revitalization strategy has become a research hotspot in the academic community.

With the application and promotion of science and technology such as big data, cloud computing, Internet of Things, and artificial intelligence in the tourism industry, digitization has become a typical feature and important path for the high-quality development of the tourism industry. The national "14th Five Year Plan" development plan clearly proposes to accelerate the deep integration of digital technology and the real economy, injecting new strength into the comprehensive revitalization of rural areas, promoting industrial digitization and digital industrialization, and providing new development opportunities for high-quality development of rural tourism and farmers' income increase.

The strategy of rural revitalization was put forward at the 19th National Congress of the Communist Party of China. Every year since then, the No. 1 central document of the Central Committee of the Communist Party of China has placed special emphasis on rural revitalization. In recent years, rural tourism has developed rapidly, but there are still a series of challenges.

With the rise of the digital economy, a new path and method have been provided for rural tourism and increasing farmers' income.

In theory, firstly, by studying the path of digital economy empowering rural tourism and increasing farmers' income from the perspective of rural revitalization, it can enrich the research methods of digital economy on rural cultural tourism and play a certain theoretical research supplement role; Second, through the example of Hongcun in Mount Huangshan, Anhui Province, exploring the impact of regional digital economy on cultural tourism and path research can provide theoretical reference for other regions in China.

In reality, developing rural cultural tourism is an important way to achieve rural revitalization. One is to analyze the problems of rural tourism in Hongcun Town, propose targeted development strategies for rural tourism in Hongcun Town, and promote the sustainable development of rural tourism in Hongcun Town. The second is to provide reference for the development of rural areas in Anhui Province and other parts of the country through the research case of Hongcun Town, promote the construction of digital villages, increase farmers' income, and promote rural revitalization.

This article uses various research methods, including literature review and a combination of online and offline methods, to study the path of digital economy empowering rural tourism and increasing farmers' income.

In the reporting process, firstly, based on the selected topic, relevant literature and research results on the path of digital economy empowering rural tourism and increasing farmers' income were collected from channels such as China National Knowledge Infrastructure, Baidu Baike, journals, newspapers, and magazines. The obtained data was analyzed and researched in depth to comprehensively understand the development of rural culture and tourism, existing problems, proposed feasible paths, and domestic and foreign experience and practices in the context of rural revitalization in previous research. Secondly, we collected and sorted out the policy documents issued at the level of Hongcun Town, Mount Huangshan, Anhui Province, to comprehensively understand the policy support, practical needs and development significance of the development of characteristic industries.

On the one hand, discussing research plans online, detailing each step, collecting information online, and distributing questionnaires; On the other hand, go into Hongcun Town, Mount Huangshan, learn about the development of the local front-line, communicate with local villagers, and get first-hand information.

## 2. Literature Review

There are various views in the academic community regarding the promotion of high-quality development of rural tourism by the digital economy. Zhang Yanfei and Zhu Haiying (2023) believe that optimizing the digital tourism development platform, guiding the digital transformation of the tourism industry, optimizing the digital tourism operation mechanism, creating a digital development environment, and accelerating the construction of a resource sharing, collaborative development, and symbiotic development path for rural digital tourism ecosystem; Pan Chengbin (2023) proposed a sustainable development path for rural tourism from the perspective of business models; Xiong Jing studied the coupling and coordination degree between digital technology and high-quality development of rural tourism, and proposed a development path to solidify the foundation of digital economy and innovate rural tourism products; Wang Rui et al. (2023) explored the high-quality development of rural tourism from the perspective of digital economy, and proposed a development path using Shanxi Province as an example; Liu Kewen and Xian Hui (2023) proposed a high-quality development path for rural tourism by combining four types of rural tourism development in

Heilongjiang Province, including digital infrastructure transformation, creating rural tourism brands, and grasping the empowerment of the digital economy; Wen Ping and Xiao Hua (2024) take Henan Province as an example to clarify the obstacles that constrain the digital economy from empowering rural tourism in Henan. It is necessary for the government, tourism enterprises, and rural residents to collaborate and form a joint force to enhance the digital economy's empowerment of rural tourism; Wang Yang and Guo Shu (2020) proposed a high-quality development path for rural tourism under the background of digital economy, which combines stakeholder symbiosis and digital technology support; Zhu Heliang and Wang Chunjuan (2020) innovatively constructed a digital industrial system and government guided industrial digital transformation to promote high-quality industrial development; Ge Heping and Wu Fuxiang (2021) constructed a digital economy indicator system, established econometric models, promoted the construction of new infrastructure, developed the digital economy, improved economic efficiency and optimized economic structure, promoted the transformation of government governance models, and further promoted high-quality economic development in China; Zhao Xiaofeng (2023) proposed the path selection of accelerating the construction of digital technology to empower the revitalization of rural cultural and tourism industry based on the theoretical logic of digital economy empowerment.

### 3. SWOT Analysis

#### 3.1. Strengths

##### 3.1.1. Rich historical and cultural resources

Hongcun Town, located at the southern foot of Mount Huangshan Mountain, is subordinate to Yi County, Mount Huangshan City, Anhui Province. It is one of the main origins of Hui culture, with a total area of 188.95 square kilometers. It has jurisdiction over 13 villages and 142 villager groups. By the end of 2023, the registered residence population is 18100, and the permanent population is 14700.

The town has preserved 625 immovable cultural relics, including 1 World Cultural Heritage site (Hongcun), 3 National Historical and Cultural Villages (Hongcun, Pingshan, and Zhishan), and 14 traditional Chinese villages. Secondly, the environment is beautiful and the ecology is excellent. The entire town is surrounded by beautiful mountains and rivers, with pastoral areas and excellent ecology. The forest coverage rate reaches 85.7%, and there is one national forest park (Tachuan), one national water conservancy scenic area (Qishu Lake), and five provincial-level "Beautiful Rural Demonstration Villages" (Hongcun, Zhishan, Xingguang, Pingshan, Longjiang). The third is the enrichment of resources and the prosperity of industries. There are a total of 8 scenic spots in the town (including 1 5A level scenic spot and 2 4A level scenic spots), namely Hongcun, Tachuan, Pingshan, Lucun Woodcarving Tower, Mukeng Bamboo Sea, Guiyuan Scenic Area, Xiuli Film and Television Village, and Guangde Kingdom. New industries such as tourism and sightseeing, life painting and photography, film and television creation, outdoor sports, and leisure and health preservation have become the main industries for the economic development of the town.

As a "rural area in ink painting", Hongcun has a history of over 900 years, with more than 140 well preserved Ming and Qing dynasty residences. Its unique Huizhou style architecture and quaint village style constitute its biggest tourism resource. The layout of Hongcun in Feng Shui is not only beautiful, but also has high scientific research value, providing tourists with a unique cultural experience.

### **3.1.2. Convenient Infrastructure**

Mount Huangshan Hongcun Town is 11km away from Yixian County, 60km away from Mount Huangshan International Airport and Mount Huangshan North Station of high-speed railway. National Highway G530 runs from north to south, and Hongru Highway runs from east to west. It takes the World Heritage Scenic Road as the main line, and has completed the transformation and upgrading of projects such as the transit road, Jicun Street, Ximen Parking Lot, and the Tachuan section of Hongcun Pedestrian Greenway to high standards. It has built the most beautiful scenic road in Hongcun with a total length of 21km and accelerated the formation of the fast forward and slow travel transportation system. The Hongcun Impression Modern Service Industry Tourism Agglomeration Area has been built, and the ecological parking lot and Hongcun Scenic Area West Gate Tourist Center have been put into use. The construction and improvement of these infrastructure have further promoted the tourism development of Hongcun Town.

### **3.1.3. Good ecological environment**

The beautiful natural scenery and excellent ecological environment of Hongcun are important factors that attract tourists. Hongcun Town boasts beautiful mountains and rivers, with pastoral areas and excellent ecology. The forest coverage rate is as high as 85.7%, and it has a national forest park and a national water conservancy scenic area. Hongcun Town has devoted a lot of effort to water environment governance and the protection of ecological diversity, effectively protecting and enhancing the local ecological environment.

## **3.2. Weaknesses**

### **3.2.1. There is singularity in the tourism industry**

The tourism projects in Hongcun Town mainly focus on sightseeing, lacking cultural experiences and interactive projects that allow tourists to deeply participate. At the same time, there is a problem of homogenization in some tourist attractions, with identical project content and heavy dependence on resource endowment, which hinders the further development of Hongcun Town.

### **3.2.2. Shortage of Talents and Technology**

Hongcun is located in a remote area and faces a shortage of talent and technology, which limits the deepening development of the digital economy. Due to its relatively backward living conditions and infrastructure, it is difficult to attract and retain talent, and its relatively low level of economic development provides limited employment opportunities and salary benefits, making it difficult to attract high-level talent. Hongcun is relatively weak in technological innovation, with slow technological updates, which affects technological progress and industrial upgrading.

### **3.2.3. Insufficient refinement of tourism services**

Hongcun Town has numerous tourist attractions, but many tourism professionals have low quality and are unable to provide high-quality services to tourists. At the same time, there may be a lack of standardized services, resulting in differentiated tourist experiences. The low service efficiency, single service mode, insufficient refinement, and weak specialization have constrained the further development of Hongcun Town.

## **3.3. Opportunities**

### **3.3.1. National policy support**

The high attention paid by the government to rural tourism and digital economy has provided policy and financial support for the development of Hongcun. Develop and improve policies for talent introduction, training, and incentives to attract talent and promote the development of the local economy in Hongcun.

### **3.3.2. Growth in Tourism Market Demand**

The local tourism resources in Hongcun are unique and attractive, with beautiful natural scenery and profound cultural heritage. As a world cultural heritage site, it has rich historical and cultural heritage and folk customs, such as Hongcun ink paintings, Huizhou architecture, etc., providing tourists with rich cultural experiences. With the improvement of people's living standards and the diversification of leisure activities, the demand for rural tourism market continues to grow, providing vast development space for Hongcun.

### **3.3.3. Rapid Development of Digital Technology**

The rapid development of digital technologies such as cloud computing, big data, and the Internet of Things has provided technical support and opportunities for Hongcun's digital transformation. Hongcun actively promotes the construction of smart tourism by establishing a tourism information platform, providing real-time tourism information, online booking, electronic tickets and other services, facilitating tourists to obtain tourism information, plan tourism itineraries, and achieve intelligent and convenient tourism services.

## **3.4. Threats**

### **3.4.1. Competition among Similar Tourism Products**

Hongcun is facing competition from similar tourism products in the surrounding areas, with certain similarities in tourism resources, tourism resources, and marketing. For example, Xidi Folk Scenic Area can continuously enhance its competitiveness and attractiveness by improving service quality, enriching tourism products, strengthening marketing, and promoting innovative development.

### **3.4.2. Challenges of Ecological Environment Protection**

Under the empowerment of the digital economy, how to balance the relationship between tourism development and ecological environment protection is a major challenge faced by Hongcun. These challenges are multifaceted, including not only the destruction of daily life and nature, but also the pressure brought by tourism development and the contradiction between ecological protection and tourism development. In the face of this challenge, Hongcun needs to strengthen education on ecological environment protection awareness, improve infrastructure construction, and strengthen supervision measures.

### **3.4.3. Technical and Talent Bottlenecks**

The deepening development of the digital economy requires higher demand for technology and talent. Hongcun needs to overcome the bottleneck of technology and talent and promote the sustainable development of the digital economy. We can improve the protection and restoration technology for ancient residents, as well as the restoration technology for aquatic ecological environment. This can be achieved through measures such as strengthening technology research and innovation, enhancing talent cultivation and introduction, and promoting diversified industrial development.

To sum up, Hongcun Village in Mount Huangshan City has many advantages and opportunities to achieve rural revitalization and construction under the digital economy, but also faces some challenges and disadvantages. In order to achieve sustainable development, Hongcun needs to fully utilize the opportunities of the digital economy, strengthen infrastructure construction, enhance the interactivity of tourism projects, strengthen ecological environment protection, and strive to overcome technological and talent bottlenecks.

## 4. Development Path

### 4.1. Enrich tourism+models and create new growth points

The high-quality development of rural tourism is characterized by supply-demand matching, green development, integration of culture and tourism, and efficient industrial development, in order to better meet the diverse, innovative, and experiential tourism needs. Hongcun Town has a variety of tourist attractions, but the value of exploration is not high, and the mode is too single. It still focuses on visiting scenic spots. To promote the high-quality development of rural tourism, it is necessary to closely link it with digital technology. With the development of digital technology, we are vigorously promoting the integration of technology, culture, sports, and tourism. Adhere to the development mainline of "tourism+" and accelerate the transformation and upgrading of tourism. For example, introducing high-end leisure projects around "tourism+leisure vacation"; Build Xiuli Film and Television Village, Hongcun Aju, etc. around "tourism+culture"; Introduce Rose Valley Town, Xieli Flower Farm, etc. around "tourism+agriculture"; Organize an international mountain bike race around "tourism+sports". By deeply integrating the tourism industry with other sectors, we can create new economic value and growth points, drive farmers' income growth, and promote rural revitalization.

### 4.2. Digital Rural Intelligence, Enhancing Rural Governance Efficiency

The digital economy provides digital impetus for rural industrial revitalization, ecological revitalization, talent revitalization, cultural revitalization, and organizational revitalization by incorporating data elements into agricultural production and digitizing and intelligentizing rural governance. Strengthen the construction of digital rural areas, create a "smart brain" for rural revitalization, and build an efficient and intelligent "smart brain" by deeply integrating information technology with agricultural and rural development, providing strong support for the rural revitalization strategy. At the same time, it is necessary to deeply implement the Digital Rural Development Action, empower rural industry development, rural construction, and rural governance with digitalization, popularize the intelligence of digital life, and create a smart and convenient living circle for the people. Improve the digital global grid system, promote the full coverage and refinement of grassroots social governance, strengthen the construction of grid personnel team through digital means, and achieve full grid coverage for all staff. By building smart and efficient digital villages and towns, it can continuously stimulate villagers' participation in various digital platform construction and improve rural governance efficiency.

### 4.3. Diversified tourism formats to enhance tourism experience

With the booming development of big data, artificial intelligence, and the digital economy, as well as the integration of digital technology and rural tourism formats, new tourism models continue to emerge, attracting the attention of young people. However, the tourism construction service system in Hongcun is incomplete, the tourism industry is relatively single, and the existing experience projects are small and scattered, with insufficient driving force and influence.

Hongcun Town actively promotes "cloud tourism" as a supplementary form of on-site tourism, transforming "cloud tourists" into "offline tourists" through cultural and tourism short videos, cloud tourism live broadcasts, and other methods to enhance the gaming experience. Fliggy Travel has developed the "Yiqi Seeking Beauty" rural tourism digital guide product for more than 20 counties including Hongcun Town. Tourists can experience the charm of the countryside online and explore new rural "gameplay" through various forms such as hand drawn maps, agricultural tourism gift packages, travel picture books, and VI guides. These measures can make positive progress in the integration of tourism formats and digital technology in Hongcun Town, injecting new impetus into rural revitalization.

## 5. Summary and Prospect

Hongcun Town in Mount Huangshan has many tourist attractions with obvious resource endowment advantages. Since the 13th Five Year Plan, it has made remarkable achievements, but there are also many contradictions. First, the economic development does not match the popularity of Hongcun's tourism brand, and the economic size is small; Secondly, the industrial structure is unbalanced, the proportion of secondary industry is too small, the ability to resist risks is weak, and there are still deficiencies in the demonstration zone for the integration of primary, secondary, and tertiary industries; Thirdly, there is a lack of deep integration with the overall tourism pattern of the entire county and region; Fourthly, the construction of the tourism service system is not sound; The fifth issue is that the tourism industry is not diverse and the mode is too single, still mainly focusing on visiting scenic spots. The existing experiential projects are small and scattered, and the driving force and influence are insufficient; Sixth, the rural revitalization in our town is still in its initial stage, and the construction of the social governance system is still in the exploratory stage; Seventh, the infrastructure is not sound, and the transportation cycle is constrained by bottlenecks in both large and small cycles; Eighth, heritage protection and rural construction management are facing great pressure. These pressures have constrained further development [13].

However, with the gradual development of the digital economy, Mount Huangshan Hongcun Town has gradually got rid of the original development dilemma and started a new tourism industry. Cloud tourism, tourism+, leisure tourism, cultural tourism features and other products have attracted tourists from all over the country to visit and play. In the era of rural revitalization, the digital economy has promoted the high-quality development of rural tourism, driven farmers to increase income, and moved towards common prosperity.

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