



Tourism Economy in Lingshi County: A Dual Mode of Coal Culture and Ancient Architectural Heritage

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Abstract. In the present work, an in-depth analysis is performed to study the economic development trajectory of Lingshi County in Jinzhong City, Shanxi Province, aiming to uncover a sustainable tourism development mode that can serve as a reference for the transformation and upgrading of resource-based areas. Lingshi County, a typical coal-resource-based area, faces the dual challenges of economic structural adjustment and environmental protection. Leveraging methods such as literature review and field research, the study comprehensively evaluates the tourism resource potential and current status of the county. With this foundation, the study focuses on achieving a balance between the development of the traditional coal industry and the emerging cultural tourism sector. The research findings suggest that for Lingshi County to boost its tourism development, it should embrace a strategy centered around coal culture experiences and the preservation of ancient architectural heritage. This approach not only enables the growth of revenue streams and fosters economic diversification within the county but also enhances awareness of ecological environment protection, thereby driving the transformation of Lingshi County's development mode towards one that is sustainable, green, and low-carbon. The research findings underscore the significance of adopting a tourism-driven development strategy in resource-based areas, offering a model and strategy that can serve as a reference for areas facing similar circumstances.

Keywords: Tourism in Lingshi County, Shanxi Province; coal culture tourism; development of ancient architecture tourism; rural revitalization; comprehensive tourism planning; tourism sustainability

1 Introduction

Situated in the middle of Shanxi Province, at the southern tip of Jinzhong City, Lingshi County stands out for its rich history and unique geographical location. Serving as a natural barrier in Liaodong and Hebei, as well as an essential passage for northward journeys from Shaanxi and Sichuan, it holds strategic significance throughout history. Lingshi County exemplifies not only a model of a national health county and a national garden county but also a representative of a provincial civilized county, demonstrating

its outstanding achievements in ecological civilization construction and socio-economic development. With its comprehensive economic strength consistently ranking at the forefront in the province, Lingshi County's development in the tourism economy is particularly noteworthy, making it an indispensable subject for studying the evolution of county-level economies. This study aims to explore the inherent model and dynamic laws of tourism economic development in Lingshi County. Leveraging a qualitative method such as field research, we gather first-hand data, ensuring the authenticity and effectiveness of the study. The field research involves the diverse natural and cultural landscapes of the county, which are important components of the tourism economy in Lingshi County. Throughout the research, we examine multiple aspects, including government policy guidance, integration of tourism resources, innovation of tourism products, community participation, and environmental protection. Our goal is to uncover how Lingshi County strikes a balance between protection and development, thereby offering a reference for achieving sustainable growth in the tourism sector. Moreover, the impact of the tourism economy on the local socio-economic structure, as well as its role in promoting rural revitalization, is explored. In summary, through systematic field research and analyses, this study provides an empirical basis for understanding the patterns and laws of tourism economic development in Lingshi County and other counties with similar circumstances, offering references for the promotion of regional economic transformation, upgrading, and the pursuit of high-quality development.

2 Dual Tourism Mode of Lingshi County

2.1 Intrinsic Correlation and Complementarity of the Dual Tourism Mode

When discussing the tourism economic development in Lingshi County, the term "dual tourism mode" refers to the integration of immersive coal culture experiences with tours of ancient architectural heritage. This combination forms a characteristic tourism development mode wherein the two elements complement and enhance each other. Rather than simply juxtaposing two types of tourism resources, the dual mode creates a unique tourism experience by exploring the intrinsic connection between the historical heritage of ancient architecture and the historical value, as well as the cultural connotations, of the coal industry. The study aims to comprehensively showcase the regional characteristics and cultural diversity of Lingshi County, promoting the high-quality development of the tourism economy.

Firstly, the dual tourism mode symbolizes a dialogue between history and modernity. Coal tourism represents the prosperity of modern industrial civilization in Lingshi County, while the ancient architectural heritage denotes its historical legacy. The combination of the two not only offers visitors a direct comparison between ancient and modern civilizations but also allows them to experience cultures from different time periods in a coherent manner, enabling visitors to sense the depth of history and the impact of era changes in one single trip.

Secondly, the dual tourism mode achieves the dual drive of culture and economy. On the one hand, coal tourism highlights industrial technological advancements and the

unique charm of mining culture, promoting the spread of coal-related knowledge and culture through experiential tourism. This injects new vitality into traditional industries. On the other hand, ancient architecture tourism focuses more on the appreciation of cultural arts and the learning of historical knowledge. Together, they promote the synchronous improvement of cultural soft power and economic strength in Lingshi County.

Thirdly, the dual tourism mode optimizes resource allocation and expands the market. Despite differences between coal tourism and ancient architecture tourism, effective integrated marketing of the two can draw a wider range of tourists. To be more specific, coal tourism appeals to family tourists and those interested in industrial history, while ancient architectural heritage is highly attractive to history and culture enthusiasts. Consequently, the implementation of the dual tourism mode can broaden market coverage, prolong tourist stay duration, and enhance tourism consumption levels.

Lastly, the dual tourism mode fosters balanced and coordinated regional development by promoting collaboration across regions and sectors. Typically, coal tourism is centered around specific industrial sites or museums, while ancient architectural heritage is scattered throughout the county. Consequently, the strategic planning of tourism routes and transportation links can not only promote balanced development between urban and rural areas but also drive the revitalization in rural areas along the route, achieving a win-win situation for economic and social benefits.

As a result, Lingshi County's dual tourism mode is not merely a simple combination of two types of tourism, instead, it explores the inherent connections and complementary strengths between the two, forming an integrated and cohesive tourism development strategy. It aims to promote the comprehensive upgrade of the tourism economy, enhance the influence of its tourism brand, and ultimately achieve sustainable development of the tourism industry in Lingshi County.

2.2 Development of Coal-themed Tourism Projects

2.2.1 Challenges to Overcome for Sustainable Tourism Development.

Mineral resource exploitation is the main economic driver of Lingshi County. The county has long relied on the extraction and output of natural resources such as coal, pyrite, and gypsum for development, leading to an industrial structure that is homogeneous and highly concentrated. However, this resource-dependent development model is facing significant challenges. In this context, Lingshi County urgently requires a shift towards sustainable development to surmount current challenges and realize economic diversification, while fostering the harmonious coexistence of ecology, economy, and society.

Rural tourism, an emerging industry with huge potential, offers fresh perspectives for the transformation of Lingshi County. Despite the challenges confronting rural tourism in China, it is undergoing significant evolution and has entered a relatively mature stage of large-scale development. Furthermore, it is actively pursuing transformation and has become an indispensable part of the tourism industry in China^[4]. For

Lingshi County, the adoption of a characteristic tourism model represents a crucial breakthrough in pursuing sustainable development transformation.

Specifically, the in-depth integration of the coal industry and tourism sector can not only extend the industrial chain of coal resources, injecting new vitality into the traditional industry, but also promote the upgrading of the tourism sector, thus creating new economic growth points. Examples of such integrated practices include the establishment of coal museums, the advancement of coal tourism, and the development of adventure experience projects using abandoned mines, etc.

This transformation strategy not only addresses the challenges posed by the county's homogeneous industrial structure, bolstering its economic resilience, but also contributes to environmental protection and ecological restoration, achieving a win-win situation for the economy and the environment. Moreover, the advancement of tourism can promote the growth of the service industry and other supporting industries, leading to increased employment opportunities and higher incomes for residents. This can further promote urban-rural integration, thus laying a solid foundation for the sustainable development of Lingshi County. As a result, integrating the transformation and upgrading of the coal industry with the sustainable development of rural tourism is essential for Lingshi County to surmount current developmental obstacles and pave the way for a new chapter in its future.

2.2.2 Strategies for Sustainable Tourism.

In response to the call for sustainable development, Lingshi County has built "Light of Lingshi," a sizable museum centered on coal. It serves not only as a place for showcasing the history and culture of coal but also as an innovative initiative to drive regional economic transformation, reduce dependence on traditional mineral resources, and enhance environmental protection and social well-being.

The museum includes numerous educational modules designed to impart visitors with coal-related knowledge. Beyond mere information dissemination, these modules play a crucial role in heightening public awareness of sustainable development, resource recycling, and environmental protection, laying the foundation for cultivating a green consumption concept. Utilizing modern technological methods rather than actual mining, the museum displays simulated underground coal mine scenes and simulated coal processing workshops, minimizing harm to the natural environment. Moreover, the display of small coal mining machines emphasizes the importance of technological progress in reducing environmental pollution. Coal tourism indirectly promotes the concept of low-carbon tourism and eco-tourism. It encourages visitors to experience coal culture while calling for their attention and participation in ecological conservation activities such as visiting nearby nature reserves. These efforts contribute to the popularization of environmental awareness.

The construction and operation of the museum have created substantial job opportunities for the local community, particularly in service-oriented fields such as tour guiding, interpretation, and maintenance management, mitigating employment strain caused by the downturn of the traditional mining industry. Furthermore, encouraging active engagement from local communities in the planning and management of museum activities not only enhances their pride in local culture but also promotes the

integration of traditional culture and modern tourism. Consequently, this approach not only brings economic benefits to the community but also safeguards and inherits local characteristics.

Additionally, leveraging local agricultural resources, the county develops tourism projects like agricultural sightseeing and crop-picking experiences. This not only fosters rural economic development but also enriches visitors' eco-friendly experiences. Moreover, utilizing technologies such as big data and cloud computing, the county optimizes its tourism management and reduces resource wastage, offering personalized and efficient tourism services that enhance visitors' tour experiences.

The 'Light of Lingshi' Museum, along with its embraced sustainable development strategy, not only addresses the issue of over-reliance on mineral resources but also plays a positive role in environmental protection, social development, economic transformation, and other aspects. This sets an example for sustainable tourism development in Lingshi County and other areas.

2.3 Development of Tourism Projects Based on Ancient Architecture Attractions

2.3.1 Tourism Image Building: A Case Study of the Grand Courtyard of the Wang Family in Shanxi.

The Grand Courtyard of the Wang Family stands as a distinguished representative of northern Chinese residential architecture. Its influence has been significant in leading and driving the development of the tourism industry across Lingshi County and its surrounding areas.

Firstly, leveraging the historical and cultural value and brand influence of the Grand Courtyard of the Wang Family, it collaborates with other attractions in Lingshi County, such as Gypsum Mountain and Hongya Canyon Scenic Area, to form a tourism route collectively known as the Lingshi Cultural Tourism Corridor. This collaboration facilitates resource sharing and promotes the mutual exchange of visitors among these attractions. Moreover, the combined promotion of these attractions not only enhances the overall tourist experience but also effectively prolongs tourists' duration in Lingshi County, thereby boosting tourism consumption.

Secondly, various traditional cultural activities are held regularly in the courtyard, including traditional festival celebrations, folk culture exhibitions, handicraft workshops, etc. These events not only enrich the tourism offerings but also deepen tourists' understanding and appreciation of the local culture. Additionally, by promoting distinctive cultural experience projects in neighboring areas, a cultural tourism cluster centered around the courtyard is established, enhancing the appeal of cultural tourism in the county.

Thirdly, the Grand Courtyard of the Wang Family places emphasis on enhancing the quality of tourism services. This involves optimizing guided tours, upgrading tourism facilities, advancing smart tourism initiatives, and more. These measures provide visitors with a more convenient and comfortable touring experience, setting a high standard for tourism services in the county. Furthermore, through training and exchanges, the experience of Wang Family Courtyard is promoted across all tourist

attractions in the county, enhancing Lingshi County's overall tourism reception capacity and service level.

Fourthly, the courtyard is committed to the integrated development of ecological and cultural tourism. Jingsheng Ancient Town, where the courtyard is located, is surrounded by rich natural landscapes. By promoting activities such as hiking trips and eco-farm experiences in the vicinity, the integration of ecological and cultural tourism is achieved. This approach not only protects the natural environment but also offers visitors diverse tourism options, thereby achieving sustainable tourism development.

Fifthly, leveraging internet platforms and new media tools such as social media, travel apps, online live streaming, etc., Lingshi County and the Grand Courtyard of the Wang Family enhance their popularity and influence through creative marketing. The dissemination of storytelling and interactive content appeals to young tourist groups and ignites their spirit of exploration, thus earning wider market attention for Lingshi County.

The development of the Grand Courtyard of the Wang Family has stimulated the growth of the surrounding rural economy, encouraging local residents to engage in tourism services and handicraft industries. Over the years, the courtyard has garnered numerous honors and evolved into an influential residential tourist destination in the industry, continuously improving its tourism environment and reception standards^[3]. Consequently, the popularity of Lingshi County and its other attractions has also gradually increased alongside the courtyard's success.

2.3.2 Sustainable Development of Rural Tourism.

A well-planned spatial layout of tourism resources is essential for dispersing tourists effectively and minimizing the impact of tourism activities on the ecological environment^[1]. During the Spring Festival in 2024, free admission to the Grand Courtyard of the Wang Family resulted in a significant surge in visitors, leading to road congestion and a subpar experience for tourists. Recognizing this issue, the local government actively made changes and took positive measures to address the challenges faced.

In response to the sharp increase in visitor numbers during the Spring Festival due to free admission, the local government and the management of the courtyard can consider the following suggestions. These measures aim to achieve the sustainable development of rural tourism while ensuring that both the visitor experience and the ecological environment remain unharmed.

(1) Visitor influx control through a reservation system: Leveraging an online reservation system, the courtyard can regulate the daily influx of visitors, avoiding overcrowding issues. This approach ensures a high-quality visitor experience while alleviating strain on the natural environment and infrastructure. Furthermore, the reservation system can collect visitor data to provide a basis for future management decisions. Additionally, we can encourage visits during off-peak hours through preferential policies, such as offering discounts on non-holidays, night tours, etc., thereby dispersing visitor traffic and reducing congestion during peak periods.

(2) Enhancing traffic management and services: The local government and the courtyard management are advised to set up more temporary parking lots, optimize public transportation services to better serve tourists, and promote the use of envi-

ronmentally friendly transportation such as electric sightseeing cars and bicycles. Moreover, the adoption of an intelligent traffic system can help predict and reduce congestion, ensuring smooth traffic flow. It is crucial to invest in tourism infrastructure, including rest areas, public restrooms, and signage. Furthermore, service quality should be improved to maintain high standards even during periods of high visitor influx.

(3) Environmental protection and education: It is recommended that the courtyard management establish environmental protection signage throughout the scenic area. They should organize educational activities for tourists, promoting zero-impact travel, waste reduction, and the preservation of natural landscapes and cultural heritage. Additionally, they should enhance monitoring of the ecological environment to prevent any irreversible damage caused by tourism activities.

(4) Community engagement and benefit sharing: The local government should encourage local communities to participate in tourism management and services, such as developing bed and breakfast accommodations (B&B), agritourism, and other experiential projects. By doing so, community residents can directly benefit from tourism development, while tourists gain a deeper understanding and respect for local culture, ultimately promoting diversified rural economic development.

(5) Policy support and regulatory development: The government should introduce relevant policies to foster the development of rural tourism. These involve providing financial support, tax incentives, flexible arrangements for land use rights, and more. Additionally, it is necessary to establish and improve relevant laws and regulations to protect the rights and interests of investors, operators, tourists, and community residents.

(6) Continuous learning and adaptive management: It is essential to establish a feedback mechanism to continuously assess the impact of tourism activities. We can adjust strategies in a timely manner based on environmental changes, market demands, and technological advancements, ensuring the long-term sustainability of rural tourism.

By doing so, the Grand Courtyard of the Wang Family and the local government are able to effectively address the short-term surge in tourists while laying a solid foundation for the long-term sustainable development of rural tourism. As a result, a win-win situation for economic benefits, social harmony, and ecological protection is achieved.

2.3.3 Boosting Characteristic Tourism through Innovative Highlight Projects.

Local and township governments should break away from the concept of imitating and copying rural tourism projects. Instead, they should focus on exploring local characteristic foods, cultures, and history to plan tourism projects that align with their unique cultural features ^[2].

Centered around the historical background of the Grand Courtyard of the Wang Family, Lingshi County explores its own local cultural characteristics, such as folk customs, handmade vinegar brewing, and the introduction of historical figures like Zitui Jie. Leveraging these elements, the county has designed a series of cultural experiential activities. For example, the Lingshi Food Festival merges local specialty snacks with tourism, boosting tourist engagement through activities such as on-site production and tasting events, thereby enhancing its own popularity. Additionally, when developing new attractions, it is crucial to adhere to the concept of green de-

velopment to ensure the harmonious coexistence of tourism activities and the natural environment. For instance, the Lingshi County Forest Park, the largest wetland park in North China, develops an ecological hiking route, guiding tourists to participate in ecological conservation activities. Moreover, the county encourages local residents to participate in tourism services and product offerings, such as family inns, handicraft sales, and more. These efforts ensure the localized distribution of tourism revenue, thereby fostering a comprehensive development of its community economy.

By developing innovative tourism projects, Lingshi County avoids the homogenization of rural tourism projects. Moreover, these activities effectively promote the inheritance and innovation of local culture, thus contributing to the long-term sustainability of the tourism economy.

3 Comprehensive Tourism Development Plan of Lingshi County

After an extended period of relying on coal resources for development, Lingshi County recognized the limitations of a homogeneous industrial structure and the accompanying environmental pressures. Consequently, the county began transitioning to a diversified economy, with cultural tourism emerging as a strategic focus. Leveraging the unique allure of heritage sites like the Grand Courtyard of the Wang Family and its rich coal culture, Lingshi County has adopted a dual tourism mode that highlights both coal culture and ancient architectural heritage. This approach has successfully attracted the attention of tourists both domestically and internationally.

In recent years, Lingshi County has actively promoted comprehensive tourism by strategically coordinating the distribution of tourism offerings, optimizing tourism facilities, and ensuring comprehensive coverage of the tourism industry. Embracing a distinctive approach of innovative integration of culture and tourism development, the county has emerged as a leading example of comprehensive tourism development, achieving remarkable success.

As outlined in the *Lingshi County Comprehensive Tourism Development Plan (2020-2030)*, the tourism spatial development should follow a layout of "One Core, One Belt, and Three Areas." Furthermore, the document emphasizes the adoption of a tourism development approach that prioritizes cultural experiential projects, daily-life-oriented projects in the courtyard, ecological leisure, and convenient travel ^[5]. Lingshi County has made significant achievements through the implementation of the "One Core, One Belt, and Three Areas" tourism spatial layout plan. The "one core" refers to the historical and cultural experience area centered around the Grand Courtyard of the Wang Family. This area includes projects such as digital interactive exhibitions and reenactments of historical stories and cultures. These projects have increased the annual number of tourists by 30% and boosted the annual income from surrounding B&B and catering services by 25%. The "one belt" refers to the ecological leisure belt along the Fen River, which has attracted a large number of eco-tourism enthusiasts through the construction of greenways and viewing platforms, with an annual growth rate of ecological tourism income exceeding 20%. The "three areas" are the mountain and water leisure resort area, modern agricultural sightseeing area, and

industrial heritage creative area, each with its own characteristics. For example, the modern agricultural sightseeing area has boosted agricultural product sales growth by 40% through holding events such as strawberry picking festivals, effectively promoting rural economic transformation and upgrading. The "One Core, One Belt, and Three Areas" layout plan not only fully utilizes the natural resources and cultural heritage of Lingshi County, but also achieves the segmentation and differentiated development of the tourism market through diversified tourism product offerings, promoting the endogenous growth and sustainable development of the tourism economy. Furthermore, from 2019 to 2023, the county secured title sponsorship for the Lingshi High-speed Railway, enhancing its popularity and influence through promotional videos and lightbox advertising. This initiative has expanded the brand's reach to 19 provinces, engaging an audience of over 85 million people. Events such as "Great Poets of Lingshi, Shanxi" and "Beautiful Lingshi" have been successfully held, further boosting the county's popularity and influence. Moreover, Lingshi County secured a position on the list of Top 100 Counties and Cities with Tourism Development Potential in China in 2021, contributing to the overall economic growth of the region to some extent.

4 Conclusion

4.1 Summary of the Past

Through the implementation of an innovative dual tourism model that combines coal culture and ancient architectural heritage, Lingshi County has completed its transformation and upgrading of the tourism economy. Taking the coal museum "Light of Lingshi" as an example, it not only enhances the diversity of tourism offerings but also fosters the harmonious development of environmental protection and the social economy. The Grand Courtyard of the Wang Family, a cultural landmark in the county, plays a crucial role in driving the development of rural tourism and promoting cultural inheritance. It also promotes the improvement of service quality within the county and facilitates the sharing of tourism benefits within the community. Additionally, the optimization of the county's tourism layout, known as the "One Core, One Belt, and Three Areas" strategy, has successfully promoted economic diversification, significantly enhanced tourism attractiveness and brand influence, and received multiple accolades.

4.2 Future Outlook

Looking ahead, Lingshi County will continue to deepen its comprehensive tourism strategy, strengthen the construction of smart tourism systems, and employ digital technology to enhance visitors' experience and management efficiency. In terms of planning, more emphasis will be placed on the integration of ecological protection and cultural innovation. This will involve the creation of more green eco-tourism offerings, such as ecological education trails and immersive nature experience camps. Additionally, efforts will be made to strengthen international and regional cooperation, introduce high-end cultural and tourism projects, and promote industrial upgrading. At the

community level, the county will consistently promote resident involvement in tourism ventures, nurture local brands, and ensure that tourism benefits return to the local area. These efforts contribute to the comprehensive sustainable development of the economy, society, and ecology, ultimately building Lingshi County into a new model for Chinese cultural tourism.

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