

Dongying Yellow River Estuary's Red Education Driving Rural Industrial Revitalization

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Abstract. This paper focuses on the Dongying Yellow River Estuary area, exploring how red education can drive rural industrial revitalization. By selecting 23 township samples (including 6 key townships) and using methods such as questionnaires, interviews, and field visits, it was found that while this region faces opportunities and challenges in the development of red industries, including policy support, economic strength, social environment, and technological innovation, there are also issues like funding shortages, single-industry structures, and talent scarcity. Moreover, there is a disconnect between red education and industry. Based on these findings, this paper proposes the "Education + Tourism" and "Education + Agriculture" models to integrate resources for promotional purposes and economic conversion, providing references for rural revitalization efforts in Dongying Yellow River Estuary and other similar regions.

Keywords: Red Cultural Resources; Red Education; Rural Revitalization; Industrial Revitalization.

1. Introduction

Rural revitalization aims at promoting rural economic prosperity and enriching farmers' lives. As a unique form of cultural resource, red culture holds significant economic potential. It not only carries rich historical memories and revolutionary spirits but also can be transformed into market-competitive products and services through integration with tourism, agriculture, and other industries, creating considerable economic benefits. The fusion of red education with related industries plays a crucial role in driving local industrial upgrades, promoting economic growth, and enhancing the cultural soft power of rural areas. The Dongying Yellow River Estuary area, which has 23 townships and abundant red cultural resources along with diversified rural industrial foundations, is currently facing the core issue of how to organically combine red education with rural industries. At present, Dongying Yellow River Estuary faces numerous challenges during its development, such as unreasonable industrial structures and inadequate exploitation of red cultural resources. Proposing feasible "red education + industrial revitalization" development models is thus extremely urgent.

2. Research Design

2.1 Purpose of Research

In the survey concerning the integration of Dongying's rural revitalization and red education, a total of 23 township samples were selected, among which 6 are key townships. This survey is significant for revealing the current state of regional red education development and exploring effective models. The sample selection considered industrial diversity to comprehensively understand the situation and problems faced by different types of industries in the process of empowering rural revitalization through red education, ensuring reliable data for subsequent model and strategy formulation. These 6 key townships showcase unique advantages in combining their distinctive

industries with red resources. When selecting the 23 township samples, designers took into account the diversity of industries, covering various types such as traditional agriculture and emerging industries. By fully considering these industrial differences, the survey results aim to comprehensively reflect the current status, issues, and potential opportunities of different industry types during the process of empowering rural revitalization through red education, providing reliable basis for subsequent development models and strategy formulation.

2.2 Research Methods

2.2.1 Questionnaire Design

Questionnaires were designed focusing on the current state of industries and the impact of red education on them, covering multiple dimensions. After understanding respondents' basic information, questions were set according to each township's industrial characteristics. For example, when surveying Guangrao Liujizhen, questions about the frequency of tourists visiting attractions, their opinions on visitor numbers, and purchasing behavior regarding red cultural tourism products were asked to explore the status quo of the red tourism industry.

2.2.2 Interview Arrangements

Interviews focused on township industry leaders and practitioners to understand the actual situation and needs of industrial development. For instance, interviewing the director of Kenli Yongan Town Bohai Reclamation District Memorial Hall to learn about school-museum cooperation in conducting red cultural education activities.

2.2.3 Field Visits

Focus was placed on identifying developable industrial resources associated with red heritage sites. For example, examining the facilities of red tourist attractions in Guangrao Liujizhen and assessing the completeness of surrounding supporting service facilities.

2.3 Advantages of Six Key Townships in Combining Industries with Red Resources

The six key townships in Dongying Yellow River Estuary demonstrate distinct industrial features leveraging red education and cultural resources to drive rural revitalization. Guangrao Liujizhen focuses on red tourism and related services, utilizing the old site of the Communist Party Branch to develop study routes that attract students and tourists, boosting surrounding catering and accommodation. Kenli Yellow River Beach Area Yangmiao Community integrates ecological agriculture with red tourism, promoting "Yangmiao Red Fruit" and "Yellow River Beach Life Experience Day Tours" to enhance rural economy. Kenli Yongan Town Bohai Reclamation District Memorial Hall emphasizes red culture education through school-museum collaborations, drawing student visitors. Kenli Yangmiao Town Rice Field Painting combines leisure agriculture with red themes, creating cultural products and boosting agricultural sales. The Yellow River Culture Museum strengthens cultural displays and school-travel agency partnerships, while the Yellow River Estuary Educated Youth Town integrates educated youth history into red tourism through "Educated Youth Return Home" activities and themed homestays. Collectively, these models showcase how red education fosters talent attraction, cultural innovation, and sustainable rural development in the region.

3. PESTLE Analysis

Under the context of rural revitalization, Dongying City is committed to leveraging red education to promote rural revitalization, making the development trend of its red industry particularly noteworthy. This paper uses the PESTLE analysis method to conduct an in-depth analysis of the current status of industrial development in this region, elaborating on the opportunities and challenges faced by local industries.

3.1 Industrial Opportunities

3.1.1 Political - Policy Support Laying a Solid Foundation

National and local governments have given high importance to the preservation of red culture and rural revitalization, issuing a series of policy documents that provide strong support for the thriving red industry. The "Opinions on Strengthening the Protection and Inheritance of Historical Culture in Urban and Rural Construction" actively promotes the organic integration of red culture with rural culture, encouraging red culture to take root in rural areas. The "Guiding Opinions on Expanding Multiple Functions of Agriculture and Promoting High-Quality Development of Rural Industries" strongly encourages the development of new forms of red tourism, opening up new directions for the red industry. Under the guidance of these policies, Dongying City has taken active measures to increase protection and development efforts for red tourism resources, renovate various historical sites, meticulously create integrated red tourism projects, and organize a variety of colorful red-themed activities. These initiatives have laid a solid policy foundation for the development of Dongying's red industry.

3.1.2 Economic - Economic Development Providing Strong Momentum

With the steady improvement in residents' living standards, people's tourism consumption capacity continues to strengthen, providing stable customer sources and powerful consumption support for the red tourism industry. Taking the Rice Field Painting project in Kenli Yangmiao Town as an example, the local area ingeniously integrates red elements into leisure agriculture, carefully designing a series of red-themed rice field paintings, attracting a large number of tourists.

3.1.3 Social - Favorable Social Environment Atmosphere

Currently, public attention towards the inheritance and protection of red culture is increasing. As red education activities are widely carried out, public participation enthusiasm continues to rise. In recent years, people's tourism consumption concepts have gradually changed, with more and more tourists preferring destinations that combine cultural connotations and educational significance. Relevant regions are accelerating industrial development by leveraging this favorable social environment atmosphere. For instance, the Bohai Reclamation District Memorial Hall in Kenli Yongan Town keenly captures this development trend, actively implementing school-museum cooperation models for red education, attracting a large number of students and tourists.

3.1.4 Technological - Technological Innovation Driving Force

The rapid development of digital technology brings new possibilities for the protection, display, and dissemination of red culture in Dongying. New media marketing methods are increasingly being used, providing excellent support for expanding the tourist source market for local red tourism. Consequently, the visibility and influence of Dongying's red resources continue to grow.

3.2 Industrial Challenges

3.2.1 Funding Shortages Restricting Industrial Development

Red tourism projects generally have the characteristics of long investment cycles and slow returns, which is one of the reasons why it is difficult to attract external investment for the industry. Taking Guangrao Liujizhen as an example, the local area faces the practical issue of insufficient funding in the development of red tourism. When funding support is inadequate, it hinders the development of new tourism projects, delays the construction of related supporting facilities, and ultimately results in a single form of tourism products that fail to meet the diverse needs of tourists.

3.2.2 Single Industrial Structure

The industrial structure of red culture in some townships is relatively single. These areas mainly rely on income from tourism ticket sales, with serious insufficiencies in extending related industry

chains. For instance, Kenli Yellow River Beach Area Yangmiao Community, despite possessing certain red tourism resources, has slow development in related industries such as catering, accommodation, and shopping beyond tourism visits, failing to form a complete industry chain. This single industrial structure leads to insufficient risk resistance in the development of the local red industry. Any fluctuations in the tourism market can significantly impact the local economy.

3.2.3 Lack of Professional Talent Hinders Industrial Innovation

The shortage of professional talent is one of the key issues affecting local industrial development. For example, Kenli Yongan Town Bohai Reclamation District Memorial Hall suffers from an insufficient number of tour guides, and their guiding methods are traditional, making it difficult to attract visitors' attention and impacting the effectiveness of red culture dissemination. Additionally, there is a lack of professional management and operation talents in relevant townships, leading to a lack of innovation and planning in local industrial development, resulting in sluggish responses to market changes and tourist needs.

3.2.4 Technological Application Lag Affecting Industrial Upgrades

With the rapid pace of technological updates, some scenic spots lag behind in technology application and updates. Although some red attractions recognize the importance of digital technology, they are unable to timely introduce advanced technical equipment due to dual shortages of funds and technical talent, leading to poor online promotion effects and difficulties in providing deep interactive experiences for tourists.

3.2.5 Disconnection Between Red Education and Industry

Some educational materials have not been effectively transformed into industrial creativity. During the implementation of red education, although abundant red cultural materials have been accumulated, these materials have not been effectively converted into competitive industrial creativity. Taking the Rice Field Painting project in Kenli Yangmiao Town as an example, although red elements are integrated into rice field paintings, during the product design and development process, the deeper connotations of red culture have not been fully explored, lacking innovative industrial creativity. The integration of red elements with leisure agriculture is not tight, making it difficult to fully tap into tourists' consumption potential, and red educational resources have not been maximized for effective utilization.

4. Effective Mechanisms

Dongying Yellow River Estuary has developed "Education + Tourism" and "Education + Agriculture" models to effectively integrate red educational resources with rural industries, achieving coordinated development in economic, cultural, and social aspects.

4.1 Activating Rural Red Resources Through the "Education + Tourism" Model

4.1.1 Integrating Resources to Create Tourist Routes

The foundation of the "Education + Tourism" model lies in the rural red resources. It is essential to deeply explore local red cultural resources, distill red cultural elements, and rely on memorials and other relics to carefully design tourist routes. In promoting the synergistic development of red education and rural revitalization, Kenli Yongan Town, centered around the Bohai Reclamation District Memorial Hall, thoroughly explores its revolutionary history and cultural value. They meticulously plan and develop a themed tour route called "Red History Tracing Journey." During the creation of this route, Kenli Yongan Town breaks through the limitations of traditional single tourism models by organically linking various red scenic spots, forming a systematic red cultural touring network. Additionally, they fully integrate surrounding unique natural landscapes and folk culture resources, blending multiple cultural elements to create rich and diverse tourism experiences for

visitors. Focusing on supporting facilities, Kenli Yongan Town carries out planning and construction for catering, accommodation, and other facilities. Throughout the improvement of these facilities, both design concepts and service content ingeniously incorporate red cultural elements. For instance, designers use revolutionary-era living scenes as a blueprint for creative designs, striving to recreate the unique appearance of the revolutionary era in indoor furnishings and external landscapes, allowing visitors to feel as if they are personally experiencing those passionate times. In terms of catering services, they offer red cultural cuisine with strong local characteristics. These dishes not only inherit local traditions in ingredient selection and cooking techniques but also provide new interpretations in naming and cultural explanations, integrating red resources so that tourists can deeply appreciate the unique charm of red culture while enjoying delicious food.

4.1.2 Promoting Consumption Conversion Through Online and Offline Channel Promotion

To attract more tourists, innovative promotional strategies need to be adopted. Utilizing new media platforms to broaden online promotional channels while closely integrating traditional offline methods such as travel agencies can create an all-round traffic diversion system. To accelerate fee conversion, relevant units should reasonably optimize the structure of tourism products, develop distinctive tourism products, and extend related industry chains. Kenli Yongan Town has established a comprehensive tourist traffic diversion system using a combination of online and offline promotional strategies. Online, they leverage the dissemination advantages of social media and professional travel websites by showcasing well-produced images, video materials, and detailed travel guides to comprehensively present the unique appeal and highlights of red tourism routes, effectively attracting potential tourists. Offline, they establish close cooperation with travel agencies, holding tourism promotion meetings to deeply interpret the advantages of the routes to tourism professionals, expanding customer sources, and successfully attracting numerous tourists. To further promote consumption conversion, Kenli Yongan Town focuses on optimizing the structure of tourism products and enriching product offerings. Besides traditional ticket revenue, they delve into the connotations of red culture to develop a series of commemorative red cultural tourism souvenirs, such as badges, books, handicrafts, etc., bearing the Bohai Reclamation District logo. Additionally, they actively encourage local residents to participate in tourism operations by vigorously developing agritainment and homestays, providing diversified catering and accommodation services for tourists, thereby broadening income channels for residents.

4.2 Promoting Agricultural Product Value Enhancement Through the "Education + Agriculture" Model

4.2.1 Empowering Agricultural Products by Telling Red Stories

To promote the development of the "Education + Agriculture" model, it is crucial to delve into history and uncover the connections between agricultural products and red revolutionary history. By telling these stories, the added value of agricultural products can be enhanced. Subsequently, short video platforms can be utilized to create engaging videos showcasing the red stories behind the agricultural products, attracting consumers. To strengthen the connection between agricultural products and red story elements, it is necessary to integrate red elements into product design, such as designing packaging with scenes or relevant quotes from the stories, or developing gift boxes themed around red stories to enhance product value and boost sales. Kenli Yellow River Beach Area Yangmiao Community actively explores innovative paths to enhance the value of agricultural products, particularly focusing on unearthing the red stories behind them to infuse the products with profound cultural significance. Based on the distinctive agricultural product "Yangmiao Red Fruit," the community deeply explores and ingeniously connects it with the revolutionary history of the people in the Yellow River beach area. During those challenging times, the local people demonstrated remarkable resilience, striving for self-sufficiency amidst adversity. "Yangmiao Red Fruit" stands as a witness to this history, thus endowing it with red cultural value. When consumers taste "Yangmiao Red Fruit," they are not only enjoying its sweetness but also touching upon that stirring revolutionary

history through this small fruit, evoking strong emotional resonance. This deep integration of red culture with agricultural products significantly enhances the appeal of "Yangmiao Red Fruit," increasing its market value and opening new avenues for the development of local specialty agricultural products.

4.2.2 Seeking E-commerce Collaboration to Achieve Industrial Value Enhancement

To further achieve industrial value enhancement, relevant regions should proactively seek the power of e-commerce platforms within the "Education + Agriculture" model. By creating online sales platforms, they can help red cultural agricultural products reach broader markets. Online products must also focus on packaging design, incorporating red cultural elements to enhance visual appeal. E-commerce platforms leverage big data algorithms to analyze consumer needs and accurately push product information. During this process, collaboration with logistics companies is essential to ensure that agricultural products are delivered fresh and promptly to consumers. By promoting industry linkage, the sales volume of agricultural products can be further increased, driving the development of surrounding related industries.

5. Conclusion

The exploration of using red education to drive rural industrial revitalization in Dongying Yellow River Estuary holds profound significance. Through the analysis of 23 townships, this paper clarifies the opportunities and challenges faced by local industrial development. The proposed "Education + Tourism" and "Education + Agriculture" models provide feasible pathways for rural revitalization. In future development, these models should be continuously optimized to overcome issues related to funding, talent, and technology, promoting deeper integration of red education with industries. This will allow the red genes to continue to flourish in the vast rural areas.

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