

Exploration of E-commerce Assistance to Agriculture in the Context of Rural Revitalization—A Case Study of Lingshan County, Qinzhou City

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Abstract: With the rise of the internet economy, e-commerce has gradually become one of the significant forms of import and export trade in China, opening new development avenues for rural areas. E-commerce platforms, leveraging new business models and channel pathways, have become a new hope for rural revitalization, actively promoting the integration of agricultural products and tourism scenic areas to bolster the journey towards rural revitalization. This paper aims to conduct a scientific analysis of the e-commerce assistance to agriculture within the context of rural revitalization in Lingshan County, Qinzhou City. It delves deeply into the current state and challenges of e-commerce development in Lingshan County, Qinzhou, and ultimately proposes scientific strategies for promotion.

Keywords: Rural Revitalization; E-commerce Assistance to Agriculture; Strategy

1. Introduction

Qinzhou is not only steeped in profound cultural heritage but also boasts significant historical, cultural, architectural, artistic, and tourist values, enriched with a variety of distinctive agricultural products. Since the implementation of the rural revitalization strategy, villages in the Qinzhou area have further developed and lifted out of poverty. However, some rural areas remain impoverished. Local farmers work hard, sowing the seeds of hope, yet often do not see a fruitful harvest. Even when there is a good yield, the lack of proper sales channels means that high-quality products cannot be sold, resulting in farmers working hard all year without reaping the benefits. Additionally, the tourism industry has seen a significant decrease in income in recent years due to the pandemic, affecting agricultural tourism parks as well. Through the "project + cooperation + farmer" approach and leveraging professional knowledge with platforms like Douyin and Xiaohongshu for live-stream promotions, efforts are made to help local farmers escape difficulties, increase their income, and enrich their lives, thus enhancing the rural revitalization brand.

2. The Current Situation and Problems of Rural E-commerce Development in Lingshan County, Qinzhou City

In recent years, with the widespread use of computers, the rapid development of the Internet+, big data, smartphones, and other mobile devices, the internet has deeply penetrated many traditional industries, prompting some of these industries to gradually change their development models. Currently, the effects of the national "Internet+" rural economy strategy have begun to emerge, with traditional agriculture experiencing a new transformation under the boost of policies. Industrial and commercial capital is flocking to the countryside, making agriculture a popular investment field. Developing rural e-commerce changes not only the consumer end but also has a significant impact on traditional production methods, sales methods, and consumption patterns, leading to an overall transformation of the rural industry chain.^[1]

With the continuous development of the internet, some areas have learned to use various online platforms to promote products and tourist attractions, achieving some results. For example, Lingshan County has developed some characteristic agriculture, such as lychees, dairy buffalo, tea, etc., through e-commerce, in line with the local actual conditions, and has achieved good development.

Characteristic industries are an important force for Lingshan to realize rural revitalization. Lingshan County has comprehensively promoted its specialties through the internet and other means, making them "internet-connected." The county has been included in the national "Comprehensive Demonstration County for E-commerce into Rural Areas" list, and the construction of a three-level e-commerce service network and a characteristic logistics distribution system at the county, town, and village levels has played a powerful support role in the rural revitalization of Lingshan.[1] However, as rural areas develop, various problems will gradually emerge in aspects such as talent, equipment, funds, policies, logistics, and supervision, such as:

(1) There are fewer young people in rural areas and returning entrepreneurial college students, while the elderly population is larger, resulting in a scarcity of professional e-commerce talents in rural areas, leading to a lower level of internet technology utilization.

(2) The local farmers' level of education is not high, lacking cultural aesthetics in the packaging design of agricultural products, resulting in crude packaging designs that lack aesthetics and expression. Consequently, even high-quality agricultural products are sold at low prices due to poor or even no packaging.[2]

(3) In rural areas, the development of information is relatively lagging, many areas are not covered by express logistics, some places have it, but the logistics express industry system is not sound. Many rural roads are not smooth, and transportation costs are also higher.

(4) There is not enough information flow, logistics, capital flow, and talent flow to support the development of e-commerce. Moreover, for farmers with lower educational levels, there is no timely knowledge dissemination about rural e-commerce, and their concepts in developing e-commerce are relatively backward.

(5) For the autonomous regional supply and marketing cooperatives, "the foundation of the supply and marketing cooperatives is in the countryside, with agricultural product production bases and farmer stores spread throughout urban and rural areas, following the Internet+ entity model." However, relying solely on them to solve express and logistics issues is clearly insufficient.

(6) Economic income is closely related to holidays. Through visits and surveys to places like Tonggu Village, Madutang Village, Huapingling Village, etc., it was found that although these villages have embarked on a "culture + tourism" path of rural revitalization, during the Spring Festival, National Day, May Day, summer and winter vacations, they enter the off-season for tourism, usually visited by residents of surrounding villages in their free time. During the tourism off-season, the development of the tourism industry is not good, the number of tourists is small, making it difficult to drive the development of the agricultural product industry, causing a large amount of high-quality agricultural products to be unsold.

3. The Significance of Actively Developing Rural E-commerce in Lingshan County

E-commerce, as a new business model, has greatly improved the efficiency and quality of agricultural product production and trade since entering rural areas, effectively reducing the costs of agricultural products and becoming an effective means to promote rural economic development.[3]

3.1 Stimulating Rural Vitality and Attracting Returnees for Entrepreneurship

For a long time, the rural environment in Qinzhou City has been backward, with few job opportunities, forcing capable young people to leave their families for better opportunities elsewhere, leading to a significant loss of rural labor force. Observing the development of rural e-commerce in recent years reveals that developing the rural e-commerce industry can provide various job positions, attracting individuals who prefer not to work outside and those passionate about e-commerce positions, offering them employment opportunities. At the same time, the development of rural e-commerce requires technical personnel, attracting many college students to return home for entrepreneurship, leading local farmers to wealth.

It not only stimulates rural vitality but also allows for family companionship. Farmers are the main force in agricultural production and the main body of the rural revitalization strategy, yet many of Qinzhou City's farmers work outside. By learning from successful examples of rural e-commerce, accumulating experience, and developing the rural e-commerce industry continuously optimizing it, e-commerce platforms can better serve farmers' interests, bringing hope and development opportunities.

This can attract some of the county's farmers who work outside to stay in the countryside for entrepreneurship, striving to become wealthy and contributing their strength to rural construction.

3.2 Expanding Sales Channels and Increasing Income Streams

Traditional sales of agricultural products mainly rely on farmers' markets, supermarkets, and wholesale markets, among other traditional channels, which face issues like geographical restrictions, information asymmetry, and numerous intermediaries. Rural product e-commerce through internet platforms can break geographical limitations, allowing more consumers to learn about the high-quality agricultural products of Lingshan County and purchase them online, achieving nationwide sales. The e-commerce model emphasizes the creation of regional public brands for agricultural products, transforming agriculture through quality branding into commercialized and branded entities. Direct sales through e-commerce can reduce intermediary links, enhance the added value in rural areas, make farmers the biggest beneficiaries of e-commerce platforms, and provide new profit growth for businesses. It also eliminates information asymmetry, allowing consumers to more directly understand the source, quality, and price of agricultural products.

3.3 Enhancing the Competitiveness of Agricultural Products and Promoting Industry Upgrading

Developing agricultural product e-commerce not only allows consumers to better understand the environment in which agricultural products are grown and their quality but also attracts individuals who love rural scenery to visit, sparking the local tourism industry and promoting the integration of agriculture and tourism. E-commerce and logistics are closely related; developing e-commerce simultaneously benefits the establishment of a more efficient logistics system, promoting the upgrade of the transportation industry, facilitating the acquisition of Qinzhou City's agricultural products, and more conveniently transporting them nationwide. Enhancing the competitiveness of the agricultural industry, adjusting agricultural production structures, and making production more scalable and standardized; quality more branded, wins public acclaim. Meanwhile, within villages, e-commerce can also drive the development and innovation of traditional industries, increase farmers' incomes, and lead to industry replication and diffusion within villages, thereby strengthening the industry agglomeration effect. Rural industrial clusters based on e-commerce platforms can both improve the quality of life for farmers and promote the transformation of traditional agriculture, fostering integrated urban-rural development.

3.4 Promoting the Transformation of Agricultural Development Models

Promoting the transformation of agricultural development models is one of the crucial tasks in current rural development. Through the push of rural e-commerce, we can more effectively integrate rural resources, creating more favorable conditions for the development of the rural economy. The vast differences in rural ecological environments lead to a richness of characteristic agricultural products in different areas. With the help of rural e-commerce, we can better develop and promote these characteristic agricultural products, providing more sales channels for farmers, thereby increasing their income. Rural e-commerce is not just a sales platform but a key tool in promoting the transformation of agricultural development models. Through e-commerce, online sales of agricultural products can be realized, market coverage is increased, and transaction costs are reduced. Moreover, rural e-commerce helps establish direct links between agricultural products and the market, reducing intermediaries and enabling products to flow more swiftly and directly to the market. Rural e-commerce plays a significant role in promoting the transformation of agricultural development models. It provides new momentum for the prosperity of the rural economy and opens up broader spaces for sustainable agricultural development. By actively promoting the development of rural e-commerce, we can achieve the transformation from traditional to modern agriculture, enabling healthier and more sustainable development of the rural economy.

4. Constraints on the Sustainable Development of Agricultural Product E-commerce in Lingshan County

4.1 Limitations of Farmers Themselves

- (1) Many farmers lack the necessary knowledge and experience in e-commerce, which hinders their

ability to effectively use e-commerce platforms to promote and sell their products during live broadcasts. Moreover, due to traditional cultural influences, many farmers remain skeptical about e-commerce and find it difficult to engage in e-commerce marketing. Additionally, some farmers have a weak concept of marketing, making it challenging to establish a unique brand identity. These factors significantly restrict the development of rural e-commerce.

(2) Entrepreneurial funding for farmers often comes from the government or personal investment. There is a lack of awareness among farmers about the role of e-commerce in marketing agricultural products. The efforts of government departments in promoting online marketing of agricultural products are insufficient, causing many farmers to stick to traditional sales methods. This results in a low market share and difficulty in effectively increasing farmers' income.

(3) Limited by educational levels, farmers are slow to accept new things, making it difficult to generate a brand aggregation effect. On the other hand, the efficiency of farmers' participation in training is low, and the learning outcomes are hard to translate into productive factors.

4.2 Lack of Unique Brand Identity Leads to Low Added Value of Products

A strong brand is the soul of best-selling agricultural products. Many consumers pay attention to brand effects when making purchases. Without a unique brand identity and differentiated product features, it is difficult to stand out in the market. Agricultural products with exquisite packaging are more likely to attract customers. Low added value agricultural products struggle to capture consumer attention and desire to purchase, limiting the sales of agricultural products.

4.3 Lack of Promotion and Publicity for Specialty Agricultural Products

In some areas, the promotion efforts for specialty agricultural products are insufficient, leading to the slow sale of these products. Relying solely on live broadcasting can only temporarily boost sales but does not enhance the brand. Brand promotion and publicity mainly rely on traditional media, with new media not yet integrated, resulting in limited exposure for specialty agricultural product brands. They cannot be precisely targeted and recommended to consumers through big data.^[2]

4.4 Over-reliance on a Single E-commerce Platform

The continuous development of e-commerce has given rise to many platforms. Over-reliance on a single e-commerce platform may limit the sales channels and market coverage of agricultural products. Changes in platform policies or cooperative relationships could adversely affect the sustainable development of agricultural product e-commerce. Therefore, diversified sales channels and platform strategies are crucial for sustainable development. To promote the sustainable development of agricultural product e-commerce, farmers and related institutions need to strengthen e-commerce training and support, enhance farmers' e-commerce skills and awareness, focus on brand building and differentiation, increase the added value of agricultural products, enhance brand promotion, and expand sales channels and platforms for long-term development.

4.5 Inadequate Transportation Logistics and Infrastructure

The economic development of many rural areas is uneven, especially in places with weak logistics foundations and poor software and hardware conditions. To expand the sales channels of specialty agricultural products and achieve better sales performance at every link, inevitably, logistics costs must be increased. For most areas, the sales method of agricultural products is through large orders by distributors and agents. Although some farmers use the internet to sell agricultural products, the logistics transportation for orders is quite scattered. In some rural areas, due to economic constraints, long-term maintenance of roads is not feasible, leading to severe road damage and significantly affecting the transportation of agricultural products. Moreover, due to slow order dispatch and transportation online, it is hard to guarantee the freshness and quality of agricultural products.

4.6 Shortage of New Rural E-commerce Service Talent

Rural e-commerce is a systemic project involving multiple departments and fields. A high-quality, well-structured, and excellent rural e-commerce talent pool is fundamental to the development of rural e-commerce. Currently, Lingshan County severely lacks personnel for collecting and analyzing

agricultural information, causing a vast amount of information resources to be underutilized. Moreover, the overall quality of rural e-commerce service personnel is not high, with weak mastery of modern information technologies like computer networks. There is not only a shortage of relevant technical service talent but also a significant loss of talent, which also restricts the development of local rural e-commerce.

5. Strategies and Recommendations for the Development of Rural E-commerce in Lingshan County

Considering modern developments, the rural e-commerce industry holds significant potential for growth, enabling farmers to increase income and realize the vision of rural revitalization. Based on the analysis above, theoretical and practical strategies and recommendations for the development of rural e-commerce are proposed.^[3]

5.1 Establish Standardized Planting Bases to Control Quality from the Source

Although Qinzhou City has favorable conditions for agricultural production with considerable output, the lack of large-scale planting means farmers plant based on their experiences, leading to inconsistent quality. To win consumer favor, producing high-quality agricultural products is a must. First, select agricultural products suitable for online sales with controllable quality and high yield as the main crops. Second, the government should increase propaganda and guidance for farmers to learn standardized planting. Third, government departments should strengthen supervision over rural e-commerce, ensuring quality control as a foundation for establishing e-commerce platforms.

5.2 Design Unique Packaging to Enhance Added Value

Well-designed packaging is an essential step to increase product sales. First, relevant departments should formulate a comprehensive agricultural product packaging policy, guiding farmers to learn and strive for each county to design unique and exquisite packaging. Second, select processing methods carefully and package meticulously, encouraging farmers to participate more and improve self-satisfaction. On this basis, quality control measures for deep processing and packaging are proposed to ensure product quality, thereby enhancing the product's added value.

5.3 Strengthen Talent Training

The level of e-commerce knowledge among local rural farmers is generally low. To promote the development of rural e-commerce, specialized talent training and introduction are necessary. First, the government should develop policies to establish a support consciousness among relevant enterprises. Second, the government and e-commerce companies should allow returning college students to become educators and implementers of e-commerce knowledge, training, and guiding farmers in e-commerce activities during the process.

5.4 Strengthen Infrastructure Construction to Ensure Product Quality

The inadequacy of rural infrastructure makes it difficult to carry out e-commerce. Currently, many rural areas have low internet coverage. The government needs to take necessary measures to enhance the area's internet coverage and signal transmission rates. Moreover, logistics transportation is a significant issue in the development of rural e-commerce. Upgrading rural transportation infrastructure and establishing a comprehensive, efficient cold chain logistics system and centralized storage centers are essential to ensure the quality of agricultural product transportation.

5.5 Enhance the Public Service Nature of Village-level Sites

Enhancing the public service nature of village-level sites, fully integrating market resources such as postal services, supply and marketing delivery, finance, and government affairs, encourages the construction of multi-station integration and service sharing. Efforts should be made to expand services such as e-commerce, express delivery, small deposits and withdrawals, information consultation, and job introduction at village (town) sites, building open and shared service points to continually enhance market-oriented operational capabilities.

5.6 Strengthen the Construction of the Upstream Supply Chain for Agricultural Products

Strengthening the construction of the upstream supply chain for agricultural products is a key link in agricultural development. By actively promoting the construction of the agricultural product supply chain, we can create 1-3 e-commerce supply chains with unique characteristics, providing comprehensive support services for e-commerce companies, family farms, farmer cooperatives, and professional operating companies. This includes market development, resource integration, and business guidance, aiming to build a more complete and efficient agricultural product supply chain system.

5.7 Connect Various Operating Farmers to Improve Competitiveness

Connecting various operating farmers is a crucial step in promoting agricultural development. Agricultural products generally have regional characteristics, making it easy for products from the same area to become homogenized in e-commerce operations. To address this challenge, local grassroots organizations or cooperatives can lead the way, guiding various operating farmers to unite and share resources, thereby breaking the homogenization pattern. This form of cooperative union helps form industry clusters, promoting synergistic agricultural development and avoiding vicious competition. Connecting various operating farmers not only effectively integrates agricultural product resources but also achieves a higher level of industry cluster development. Farmers can jointly develop strategies, share market information, and face market changes together. This cooperation model not only enhances the quality and brand influence of agricultural products but also improves the competitiveness of the entire regional agricultural industry.

6. Conclusion

This article takes Lingshan County of Qinzhou City as an example to explore the exploration of e-commerce in aiding agriculture within the context of rural revitalization. Through in-depth research and analysis, this article summarizes the significance and importance of e-commerce in aiding agriculture, as well as the existing problems and challenges in practice. Therefore, it is urgent for Lingshan County to comprehensively improve and optimize the work of e-commerce in aiding agriculture, including brand building, e-commerce environment and mechanisms, and new forms of agricultural product sales, to promote the continuous and stable development of e-commerce in aiding agriculture in the county.

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