

# Research on the Innovation of Agricultural Product E-commerce Platform in Xiaogang Village in the Digital Economy Era

Zhaoge Liu, Ding Gao, Zhicheng Liang, Yingchen Zhou

School of Languages and Media, Anhui University of Finance & Economics, Bengbu Anhui 233030, China.

## Abstract

With the rapid development of Internet technology, the agricultural product e-commerce platform, as an important bridge connecting rural and urban areas, producers and consumers, has a profound impact not only on core areas such as agricultural industry upgrading and farmers' income but also on the construction of rural logistics systems, the building of agricultural product brands, and the implementation of the rural revitalization strategy. It has become an important engine for promoting agricultural and rural modernization. This paper studies the online marketing strategies of agricultural products in Xiaogang Village in the context of e-commerce, analyzes the current situation of e-commerce in Xiaogang Village and the problems existing in its development process, and proposes strategies including improving the network infrastructure construction in Xiaogang Village, building the brand of agricultural products in Xiaogang Village, perfecting the online marketing channels of agricultural products in Xiaogang Village, enhancing the standardization degree of agricultural products in Xiaogang Village, and cultivating relevant e-commerce talents. It aims to improve the online sales performance of relevant agricultural products and agricultural product processing enterprises in Xiaogang Village by optimizing the marketing strategies, integrating marketing resources, and enhancing user experience, so as to promote the deep integration of the agricultural industry and e-commerce in Xiaogang Village, facilitate the healthy development of the agricultural industry chain, and accumulate reform experience for the vast rural areas to learn from.

## Keywords

Digital economy, Agricultural products, E-commerce platform, Xiaogang Village.

## 1. Introduction

General Secretary Xi Jinping pointed out: "In today's era, digital technology, as the leading force in the world's scientific and technological revolution and industrial transformation, is increasingly integrated into all fields and the whole process of economic and social development, profoundly changing the modes of production, life, and social governance." Digital technology provides an internal driving force for the comprehensive revitalization of rural areas. Empowering the comprehensive revitalization of rural areas with digital technology is conducive to narrowing the urban-rural gap, ensuring that the dividends of digital development benefit the vast number of farmers more fairly and widely, and helping to achieve the grand goal of Chinese-style modernization.

At present, the digital divide between urban and rural areas in China still exists. According to the 54th Statistical Report on the Development of China's Internet Network released in 2024, the Internet penetration rate in rural areas is 63.8%, lower than 85.3% in urban areas. To some extent, this development gap restricts farmers' ability to obtain information, understand

policies, and participate in the market economy, limiting their effective participation in the digital economy and urgently needs to be changed.

In the new era, e-commerce, as a new sales model, has led more and more agricultural product enterprises to adopt online sales channels for product promotion and sales. The agricultural product e-commerce platform has become an important way of agricultural product circulation. In this context, the relationship between e-commerce and agricultural product online marketing runs through all links of the entire agricultural product marketing chain. This paper studies the innovation of the agricultural product e-commerce platform, focuses on the online marketing strategies of agricultural products in Xiaogang Village, improves the problems in the current e-commerce development model in Xiaogang Village, enhances the online marketing ability of agricultural products in Xiaogang Village, and strengthens the brand building of agricultural products in Xiaogang Village, hoping to help the development of e-commerce in rural areas and promote rural revitalization.

## **2. Analysis of the Current Situation of Xiaogang Village's E-commerce Platform**

### **2.1. Industrial Foundation for Developing Agricultural Product E-commerce Platform in Xiaogang Village**

Xiaogang Village is located at the Jianghuai Watershed and has a relatively large per capita arable land area. The total arable land area in the village reaches 14,500 mu. Xiaogang Village can give play to its own resource endowment, focus on developing modern agriculture, increase the added value of agricultural products, increase farmers' income, and enhance the value of land resources. Relying on rice, Xiaogang Village has introduced Anhui Parboiled Rice Food Technology Co., Ltd. and Xiaogang Panpan Food Co., Ltd. In addition to new agricultural business entities growing more and better grains, it has also expanded the grain processing industry. At the same time, Beidahuang Group has carried out in-depth cooperation with Xiaogang Village, leasing land to plant rice and other crops, making use of land resources to increase agricultural product income.

### **2.2. Current Situation of Agricultural Product Sales in Xiaogang Village Relying on E-commerce**

In the new era, e-commerce has flourished in the field of agricultural products, overturning the previous sales model. According to the latest report of the China Internet Network Information Center (CNNIC), the rapid rise of agricultural product e-commerce platforms such as Taobao, JD Fresh, Pinduoduo, and Meituan 优选 has promoted the rapid growth of agricultural product online sales. Especially in the post-epidemic era, the online demand for agricultural products has shown an explosive growth trend. This clearly indicates that e-commerce has become an indispensable important channel for agricultural product sales. At present, there are still problems with the imperfect online marketing channels for agricultural product sales in Xiaogang Village. Agricultural products in Xiaogang Village are mainly sold through Taobao stores on the Internet. There are not many video and advertising links that can attract customers, and there are few relevant topics that can be searched on various social software and platforms, resulting in difficulties in selling good products. For the operators settled in Xiaogang Village, the text, color, and sound of advertisements need to be improved, and the products displayed are not enough to attract consumers, and the market competitiveness is weak.

### **2.3. Problems in Agricultural Product Online Marketing in Xiaogang Village**

In the actual operation process of relevant enterprises in Xiaogang Village, agricultural product online marketing faces various problems.

Firstly, the quality standardization and grade classification of agricultural products are not clear. The diversity and regional characteristics of agricultural products often lead to uneven product quality, making it difficult for consumers to accurately identify the real quality of agricultural products in online purchases. This further exacerbates consumers' risks and concerns about online purchases of agricultural products.

Secondly, the logistics distribution system is imperfect. Although logistics distribution technology has made great progress in recent years, compared with industrial products, agricultural products usually have a short shelf life, are highly perishable, and require more professional and time-sensitive logistics services. Especially in rural areas, the effective cold chain logistics system is still not perfect, which leads to losses and quality problems during the distribution process of agricultural products.

Thirdly, agricultural product online marketing faces the problem of insufficient personalization and experience. Due to the characteristics of agricultural products and consumers' shopping habits, it is difficult for consumers to obtain the same shopping experience online as offline, such as tasting and touching, which affects the efficiency of online marketing and consumers' satisfaction in purchasing agricultural products.

Fourthly, there is a lack of agricultural product online marketing talents. Due to the mediocre economic development trend in Xiaogang Village in the early years, the brain drain of local talents is serious, and it is difficult to attract foreign talents, resulting in an extremely scarce talent team in Xiaogang Village.

## **3. Digital Transformation Paths and Measures of Xiaogang Village's E-commerce Platform**

### **3.1. Improving the Network Infrastructure Construction in Xiaogang Village**

To make up for the network shortcomings in Xiaogang Village, the development of the agricultural product e-commerce platform cannot be separated from the construction of rural network infrastructure. Firstly, improve the network coverage and quality to ensure that the Xiaogang Village area can access high-speed, stable, and secure Internet. Secondly, reduce the Internet access cost. Making Internet services affordable for more farmers is a necessary condition for promoting agricultural product e-commerce. The government and enterprises can reduce farmers' Internet access fees through subsidies, preferential packages, and other means. Finally, enhance the information literacy of farmers in Xiaogang Village. While strengthening the construction of rural network infrastructure, it is also necessary to pay attention to enhancing the information literacy and e-commerce skills of farmers. Through various forms of training and publicity, help farmers in Xiaogang Village master Internet technology and e-commerce knowledge and improve their ability to use e-commerce platforms for agricultural product sales.

### **3.2. Building the Brand of Agricultural Products in Xiaogang Village**

The brand building of agricultural products is a key measure to enhance the market competitiveness of agricultural products, increase agricultural added value, and increase farmers' income. Firstly, agricultural products with distinct regional characteristics, high market recognition, and great development potential should be listed as the focus of brand building. Continuously increase the intensity of brand promotion and actively carry out brand system construction. Constantly improve the long-term mechanism for brand cultivation. Secondly, clarify the brand positioning of Xiaogang Village and determine the unique position

and value proposition of the brand in the market. Agricultural product operators can deeply analyze the needs of target consumers, the situation of competitors, and their own resource advantages. Design personalized brands according to market demands and local resource characteristics to form a differentiated brand image and stand out in the fierce market competition. For example, focus on features such as "direct supply from the origin", "healthy and organic", or "traditional handicrafts" to make the brand stand out among many agricultural products. Thirdly, continuously explore the historical stories, regional characteristics, and human feelings behind agricultural products. Through storytelling, increase the cultural added value and emotional connection of the products. Such cultural packaging can not only enhance the brand image but also arouse consumers' emotional resonance and strengthen brand memory points. Finally, adhere to green planting (breeding). With the improvement of consumers' awareness of health and environmental protection, green ecology has become an important selling point of agricultural products. Obtain third-party certifications (such as organic certification and green food certification) to enhance consumers' trust and meet modern consumers' pursuit of a healthy life.

### **3.3. Perfecting the Online Marketing Channels of Agricultural Products in Xiaogang Village**

With the high-quality development of society, marketing channels are also changing. More and more consumers tend to shop online, and the online sales of agricultural products are constantly increasing. Perfecting the online marketing channels of agricultural products in Xiaogang Village is conducive to product sales in the "Internet +" mode and broadening the online marketing channels.

Firstly, widely use online social media to introduce and publicize the production process and product processing process of agricultural products in Xiaogang Village in the form of "high-quality videos + text" to improve consumers' awareness of the products. Secondly, rely on large Internet e-commerce platforms such as Tmall, Pinduoduo, Duoduo Maicai, Meituan, and Douyin E-commerce. Utilize consumers' trust in the platforms and enter the above platforms for sales, which is conducive to increasing the sales volume of agricultural products in Xiaogang Village. Finally, use public relations management for promotion. Relevant functional departments can carry out online public relations activities such as online product exhibitions and promotion meetings in Xiaogang Village to create a good business environment. At the same time, activities such as "Entering Xiaogang Village" can be held to enhance the understanding of experienceers or consumers about agricultural product processing enterprises in Xiaogang Village.

### **3.4. Improving the Standardization Degree of Agricultural Products in Xiaogang Village and Enhancing Competitiveness**

The unstable quality of agricultural products has an adverse impact on the development of the agricultural product e-commerce platform because consumers' uncertainty and distrust of product quality will affect the sales and reputation of the agricultural product e-commerce platform. Improving the standardization degree of agricultural products can promote the development of the agricultural product e-commerce platform.

Firstly, establish a unified quality standard system and formulate strict standards. According to relevant national laws, regulations, and industry standards, combined with the actual situation of the agricultural product e-commerce platform, formulate a unified agricultural product quality standard, clarify the requirements of all links such as production, processing, packaging, storage, and transportation of agricultural products. Increase the publicity and promotion of agricultural product quality standards to improve the awareness and participation of farmers, producers, and consumers and ensure the implementation of the standards. Secondly, strengthen the standardized management of the production process. Guide agricultural

product producers to adopt standardized planting or breeding techniques and strengthen the supervision of agricultural production inputs, especially pesticides. Ensure that the inputs meet national or industry standards, avoid using prohibited drugs and unqualified products, and guarantee the safety and quality of agricultural products so that consumers can buy and use them with confidence. Thirdly, establish an agricultural product quality and safety traceability system. Use technologies such as blockchain and the Internet of Things to establish a traceability system for agricultural product quality and safety to achieve the whole process traceability from the fields of agricultural producers to the tables of consumers. Truly make product information transparent and enhance consumers' trust. At the same time, achieve data sharing, interconnection, and mutual recognition with government departments, industry associations, and third-party testing institutions to improve the coverage and accuracy of the traceability system, which can effectively improve the product quality and competitiveness of the agricultural product e-commerce platform and promote the healthy development of the agricultural product e-commerce platform.

### **3.5. Cultivating Relevant Professional Talents in Rural E-commerce**

Set up Xiaogang Classroom to provide e-commerce professional knowledge tutoring and fresh knowledge in agriculture and other fields for farmers in need. Form a regular and scientific talent internship and transfer plan. At the same time, establish long-term contacts with various universities to build a platform for college students' social practice in enterprises in Xiaogang Village. Provide college students with a platform for practical operation, exercise, and experience to achieve in-depth education. Provide employment and internship opportunities for relevant majors and encourage young students to actively participate in rural revitalization and contribute their youth to rural construction and development.

## **4. Effect Evaluation of the Digital Transformation of Xiaogang Village's E-commerce Platform**

### **4.1. Creating the Characteristic Brand of Xiaogang Village**

Xiaogang Village can give play to its comparative advantages, guide the refined, specialized, and intensive development of e-commerce services. Cultivate the characteristic brand of Xiaogang Village's e-commerce, promote characteristic products and services, and create a rural e-commerce development atmosphere with a distinct theme and prominent highlights. Select rice agricultural products and related processed products with a certain scale in Xiaogang Village, introduce professional teams, tailor marketing plans for rural e-commerce brands, and improve supporting services such as product design, video shooting, and copywriting planning. Tell the product story well and improve the product's reputation and market popularity.

### **4.2. Forming the Optimal Marketing Model**

Firstly, shoot characteristic films related to local agricultural products and rural tourism to improve the product expression ability of Xiaogang Village, tell the story of Xiaogang Village well, and increase the popularity and reputation of Xiaogang Village's characteristic agricultural products. Sell characteristic agricultural products through different channels and publicize them on the Internet. Combine local specialties and ethnic cultures. Release Xiaogang Village's agricultural products on comprehensive e-commerce platforms such as Taobao and Pinduoduo and other agricultural e-commerce platforms. Focus on showing the basic form of the products and assist farmers in Xiaogang Village in the whole process of marketing characteristic agricultural products through pictures and videos taken by publicity personnel.

Secondly, under the guidance of the local government in Anhui Province and through the media, build an e-commerce support platform. On each main promoted network platform, promote local specialties in Xiaogang Village in the form of videos to improve market influence, advertise

local agricultural products well, fully publicize them, enhance channel adaptability, increase the sales volume of Xiaogang Village's characteristic agricultural products, and further promote rural revitalization.

### **4.3. Improving the Comprehensive Quality of Farmers in Xiaogang Village**

At present, a common problem is that farmers have a shallow understanding of e-commerce, which is not conducive to promoting the brand of Xiaogang Village's characteristic agricultural products. Therefore, it is especially important to enhance farmers' sales awareness in the field of e-commerce in Xiaogang Village. Therefore, in the process of promoting Xiaogang Village's characteristic agricultural products, firstly, a series of marketing strategies should be formulated and implemented to popularize the advantages of e-commerce transactions of agricultural products among farmers. This includes regularly updating the publicity strategies to maintain the freshness and attractiveness of the activities. Secondly, recommend professional agricultural product e-commerce sales platforms to farmers, aiming to reduce the costs in the sales process and effectively increase the sales volume, thereby achieving cost reduction and efficiency improvement and maximizing value. Thirdly, improve salary to guide outstanding graduates majoring in e-commerce to return to their hometowns to start businesses and use their knowledge to benefit their hometowns. The government can formulate relevant incentive policies to improve the comprehensive quality of local farmers and should regularly provide professional knowledge training for characteristic agricultural product operators, enhance their brand building awareness and relevant skills in using e-commerce networks. Finally, enterprises related to characteristic agricultural products need to make fundamental changes in their marketing strategies to adapt to new market demands and development trends. Relevant enterprises need to play a leading and exemplary role in promoting the prosperity and development of the e-commerce industry of Xiaogang Village's characteristic agricultural products. This can not only promote the development of the e-commerce of Xiaogang Village's characteristic agricultural products but also promote the vigorous development of the e-commerce of characteristic agricultural products.

## **5. Conclusion**

In conclusion, in the context of economic development engines such as e-commerce platforms and the digital economy, the agricultural product e-commerce platform, as an important engine for rural digital economy development, is of great significance for promoting farmers' income increase, promoting rural industry upgrading, and enriching the lives of rural residents. The online marketing strategies of agricultural products also need to be continuously optimized and iterated. Coordinate the main bodies of all parties in the industrial chain and promote the implementation of the rural revitalization strategy. Enterprises should strengthen technology research and development and talent cultivation, continuously innovate, and continue to make efforts for the high-quality development of rural network marketing. Agricultural products should strengthen brand building, integrate new ideas and concepts of network marketing, and promote the sustainable development of the agricultural industry chain. Xiaogang Village has sustainability and replicability through measures such as ensuring the quality of agricultural special products, establishing and improving brand awareness, and enriching agricultural product promotion models, providing a reference for other regions to promote rural economic development through digital platforms. At the same time, the implementation of the above measures will help transform and upgrade the traditional production and marketing methods. Looking ahead, with the continuous deepening of the rural revitalization strategy and the wide application of digital technology, the agricultural product e-commerce platform will usher in broader development prospects, injecting new vitality into the rural economy and helping to achieve comprehensive rural revitalization and urban-rural integration development.

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