



Research on the Empowerment of Regional Economy by Live-streaming E-commerce of Agricultural Products in Meizhou

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Abstract. Against the backdrop of the rapid penetration of the digital economy into traditional industries, agricultural live-streaming e-commerce, gradually becoming a product of the integration of digital technology and agriculture, is becoming a key driver for revitalizing rural areas. This project takes Meizhou as a research target, by reviewing the current development status and challenges of its agricultural live-streaming e-commerce, it systematically examines the specific impact of live-streaming e-commerce on the digital economy. The research finds that agricultural live-streaming e-commerce in Meizhou not only promotes the digital transformation of agriculture and the coordinated development of related industries, but also injects new impetus into the regional digital economy. In response to the disadvantages such as talent shortage, insufficient standardization, weak brand, and high logistics costs faced in the development process, this paper raises targeted optimization suggestions, aiming to provide practical references for Meizhou and similar regions in exploring the path of integrated development of the digital economy and agriculture.

Keywords: Live-streaming e-commerce, digital economy, agricultural products, Meizhou

1 Introduction

In the era of new economy, the in-depth integration of Internet technology and traditional industries has given birth to a large number of new business forms. Agricultural product live-streaming e-commerce, as one of them, is gradually becoming a new engine to drive the development of economy. As a region with abundant agricultural resources, Meizhou has vigorously developed agricultural product live-streaming e-commerce in recent years. Many farmers and business operators have promoted special agricultural products such as oranges and tea to the national market through live-streaming e-commerce platforms. This has not only changed the sales channels of agricultural products, but also exerted a profound influence on the development of Meizhou's digital economy. Conducting in-depth research on their internal relations is of important practical significance for promoting the high quality economic develop-

ment of Meizhou. Studying the impact of agricultural product live-streaming e-commerce on the digital economy in Meizhou can not only reveal the internal logic of underdeveloped regions realizing agricultural leapfrog development by means of digital technology, but also provide replicable and promotable experience for similar regions across the country. Based on field investigation and combined with relevant theories of digital economy, this paper makes a comprehensive analysis of the interaction mechanism between agricultural product live-streaming e-commerce in Meizhou.

2 Review of Research

Nowadays, live-streaming e-commerce for agricultural products is developing rapidly, and many scholars have conducted extensive research in this field. Shi Zheng[1]. studied whether the anchoring characteristics of agricultural products have an impact on consumers' purchasing behavior by using the stimulus, organization and response theoretical framework, and concluded that the anchoring characteristics all have a positive impact on consumers' purchasing behavior. Xiaoxu Dong[2]. established a live-streaming e-commerce system consisting of five dimensions: information quality, system quality, service quality, remote presence and social presence, and studied whether live-streaming e-commerce has won consumers' trust. The evaluation results showed that the above five dimensions of the standard live-streaming e-commerce quality had a positive impact on green trust. Xiaoping Xu[3]. used a game model involving farmers, platforms and influencers and analytical methods to study whether and how agricultural supply chain members adopt live-streaming channels, and concluded that when the value of live-streaming is low, introducing live-streaming has a negative impact on farmers' profits, and introducing live-streaming when the value is low or high will damage the profits of the platform under the specific value of influencer, and using the live-streaming channel may not be profitable for agricultural supply chain members. Ying Liu[4] used questionnaire and structural equation modeling to analyze the data of 586 Chinese consumers and studied the factors affecting consumers' repurchase of agricultural products through e-commerce live-streaming, and concluded that information quality, product quality, logistics service quality and ROO image have a positive impact on satisfaction and trust, and satisfaction and trust have a positive impact on repurchase intention and play a partial mediating role. Wang Geng[5] used grounded theory as the main research method and combined platform theory and ecosystem theory to study the essence, basic characteristics, development influencing factors system, development model and development path of sustainable cross-border agricultural supply chains in the live-streaming context, and concluded that the research results can help expand the research perspective on live-streaming e-commerce and sustainable cross-border agricultural supply chain ecosystem, provide theoretical support for the establishment and operation of related supply chains, provides an important reference for promoting sustainable development, industry upgrading, global agricultural trade and achieving mutual benefits in this field. Xiaochen Leng[6]. used the construction of integrated contribution and

interaction indicators, APL model and grey correlation method to study the integrated trend, correlation and coordinated transformation of agricultural-related industries and the digital economy industry, and concluded that the digital economy industry contributes the most to the agricultural processing industry, etc. Yunzhu Yu[7]. used the method of analyzing from the perspective of the anchor's stereotype and the production traceability scenario to study the influence of anchors and scene factors on agricultural live-streaming e-commerce, and concluded that the perceived enthusiasm and ability of the anchor can promote the purchase intention, and non-production traceability scenarios will inhibit the purchase intention. Fanyong Meng[8]. used signal game analysis and methods in static and dynamic backgrounds to study the impact of consumer types on the decision-making of ACT enterprises, and concluded that punishment is the main factor for establishing balance.

3 Current Development Status of Agricultural Product Live E-commerce in Meizhou:

Recently, live e-commerce for agricultural products in Meizhou has developed rapidly. According to statistics, the number of agricultural product live events in Meizhou increased from 5,000 per year in 2020 to 25,000 in 2024. The types of agricultural products featured in live events have also expanded from over 100 to over 500. The sales volume of live e-commerce has achieved a leapfrog growth. In 2020, sales volume was only 200 million yuan, but it soared to 2 billion yuan in 2024. More farmers, agricultural enterprises, and professional e-commerce live presenters have joined in, forming a large-scale e-commerce live presentation ecosystem. The current mode of agricultural product live e-commerce in Meizhou mainly includes three types: farmers' independent live streaming, e-commerce enterprises and farmers' cooperation live streaming, and government-led live streaming. Farmers' independent live streaming is carried out by some farmers with the ability and technology who introduce their own agricultural products' cultivation, growth environment, and characteristics through short video platforms and directly connect with consumers for sales. E-commerce enterprises and farmers' cooperation live streaming is carried out through signing cooperation agreements between e-commerce enterprises and farmers, integrating the agricultural product resources of farmers, and conducting planning and live streaming through professional live streaming teams, leveraging the brand influence and sales channels of e-commerce enterprises to open up the market. Government-led live streaming is carried out through government departments organizing agricultural product live streaming activities and inviting influencers and media to participate, endorsing local agricultural products. Nowadays, the mode of agricultural product live e-commerce in Meizhou has distinct regional characteristics. The main focus of agricultural product live streaming areas in Meizhou is to showcase local products with various features, such as golden tangerines and sweet potatoes. What is more, the content of agricultural product live e-commerce in Meizhou is rich and diverse, including the display of agricultural production processes, rural life experiences, and agricultural product processing and production. This enables consumers with a more

comprehensive understanding of the origin and value of agricultural products, enhancing their trust and purchase desire. Agricultural product live e-commerce in Meizhou has characteristics of both online and offline development. While conducting online live streaming, many merchants also use offline experience stores and agricultural product exhibitions to allow consumers to experience agricultural products firsthand, achieving mutual promotion between online and offline and expanding sales channels.

4 The Impact of Meizhou Agricultural Products E-commerce Live Streaming on the Digital Economy:

4.1 It can Promote the Optimization of the Digital Economy's Industrial Structure, Mainly in the Following Aspects

The development of agricultural product live-streaming e-commerce has prompted agricultural production to attach greater importance to digital management. In order to meet the product quality traceability requirements of agricultural product live-streaming e-commerce, farmers have strengthened the application of agricultural internet technologies. For example, they install sensors to monitor soil moisture, temperature, light and other environmental indicators, realize precise control of irrigation and fertilization, and improve the quality and quantity of agricultural products. Meanwhile, big data technology is used to analyze consumer demand and adjust the planting and breeding structure, so as to realize the precision and automation of agricultural production and promote the transformation of agriculture from the traditional model to digital agriculture.

The prosperity of agricultural product live-streaming e-commerce has driven the development of logistics distribution, live-streaming planning, influencer economy and other related industries. Recently, many local platforms have emerged in Meizhou, which specially provide services for agricultural product live-streaming. Logistics enterprises have also increased investment in rural areas, set up logistics outlets and improved distribution efficiency. Emerging service industries such as live-streaming economy and influencer operation have also gradually developed, providing professional support for agricultural product live-streaming e-commerce.

4.2 Innovating the Transaction Model of the Digital Economy Mainly Manifests in the Following Aspects

Traditional agricultural product sales depend on intermediaries, resulting in a single sales channel and many problems of information asymmetry. Agricultural product live-streaming e-commerce breaks this traditional model. Through live-streaming platforms, farmers directly connect with consumers and realize direct sales of agricultural products. Consumers can directly obtain agricultural product information through live-streaming and interact with hosts to place orders. Such diversified sales

channels have greatly improved the circulation efficiency of agricultural products and reduced transaction costs.

The interactivity and real-time nature of live-streaming e-commerce provide consumers with a brand-new consumption experience. During live broadcasts, consumers interact with hosts through screen comments, put forward product-related questions, and hosts can reply in a timely manner and demonstrate product usage. At the same time, limited-time discounts and lottery activities in live-streaming enhance the excitement and fun of shopping, stimulate consumers' purchasing desire, and improve their participation and satisfaction in digital economy consumption.

4.3 Increasing Employment Opportunities in the Digital Economy Mainly Manifests in the Following Aspects

The development of agricultural product live-streaming e-commerce has given birth to new positions, which require skills different from traditional agricultural posts. It places more emphasis on Internet technology, marketing and hosting capabilities. Many young people have seized the opportunities and returned to their hometowns to engage in relevant work, injecting new vitality into rural development. In 2024, about 5,000 new jobs related to agricultural product live-streaming e-commerce were created every week, and more than 80% of the practitioners were young people under 35 years old.

For farmers, participating in agricultural product live-streaming e-commerce can not only increase the sales income of agricultural products, but also obtain additional income through live-streaming sales and e-commerce training. Meanwhile, some farmers have shifted from traditional agricultural production posts to e-commerce-related posts, realizing the optimization of employment structure. After receiving training, some farmers have become e-commerce hosts to promote their own agricultural products, with their income increased significantly. They have transformed from simple agricultural producers into new-type farmers with both production and marketing capabilities.

4.4 Accelerating the Construction of Digital Infrastructure Mainly Manifests in the Following Aspects

To meet the needs of agricultural product for network bandwidth and stability, communication operators have increased investment in network infrastructure in Meizhou. Recently, the 4G network coverage rate in rural areas of Meizhou has risen from 80% in 2020 to 98% in 2024, and 5G network trials have been launched in some areas. The upgrading of network communication facilities not only provides a guarantee for the development of agricultural product live-streaming e-commerce, but also lays a foundation for the development of other digital economy activities in rural areas, such as distance education and telemedicine services.

The fast development of agricultural product live-streaming e-commerce has put forward higher requirements for rural logistics distribution. To solve the "last mile" problem, the government and enterprises have taken joint actions to improve the rural

logistics distribution system. In Meizhou, by integrating postal, express delivery and logistics resources, logistics distribution centers at the county level, logistics service stations at the township level and logistics outlets at the village level have been built, forming a three-level logistics distribution network covering county, township and village. Meanwhile, new models have been promoted to improve the efficiency of rural logistics distribution and the preservation capacity of agricultural products, so as to further boost the development of the economy.

5 Suggestions for the Synergistic Development of Agricultural Products E-commerce Live Streaming and Digital Economy in Meizhou:

5.1 Strengthen the Cultivation of Professional Talents:

The government, universities and social institutions should enhance cooperation to meet the demands of agricultural products' e-commerce live streaming, and conduct professional training. The training content should cover: agricultural knowledge, e-commerce operation skills, live-streaming language, marketing, etc. The training effect should be improved through the combination of theoretical teaching and practical operation. Regular e-commerce live streaming training courses should be held, with industry experts giving lectures and organizing trainees for live-streaming practice exercises. In addition, the government should introduce relevant preferential policies to attract local e-commerce talents in Meizhou to return and start businesses, and also attract outstanding e-commerce talents from other places to develop in Meizhou. By providing housing subsidies, entrepreneurship support funds, children's education and other preferential policies, the worries of talents can be alleviated, providing talent guarantee.

5.2 Enhancing the Standardization Level of Agricultural Products:

Firstly, establish agricultural product standards. The agricultural department should collaborate with experts to formulate unified production standards and quality systems, covering aspects such as the selection of agricultural products, planting and breeding techniques, fertilization and pesticide use, harvesting and receiving, storage and transportation. For example, establish the standardized production process for Meizhou Golden Tangerines, clearly defining standards and regulations for soil improvement, tree pruning, and fruit and flower pruning. Secondly, strengthen quality supervision and establish a complete quality supervision mechanism. Enhance quality inspection and supervision. Utilize modern technologies such as blockchain to achieve traceability of agricultural product quality, ensuring the quality and safety of agricultural products and enhancing consumers' trust in Meizhou agricultural products.

5.3 Strengthening Brand Building:

Firstly, create a regional public brand. The government should lead the integration of Meizhou's characteristic agricultural product resources and build a unified regional public brand. Through brand planning, publicity and promotion, enhance the overall brand image and market awareness of Meizhou agricultural products. At the same time, encourage enterprises and farmers to build their own enterprise brands and product brands based on the regional public brand, forming a brand matrix to enhance market competitiveness. Secondly, the second point is to increase brand promotion efforts. Utilize media platforms such as television, newspapers, and the internet, as well as participate in agricultural exhibitions, e-commerce live streaming events, etc.. Through telling brand stories, showcasing the characteristics and advantages of agricultural products, increase brand exposure and reputation. Produce promotional videos for Meizhou agricultural products and play them on various platforms. Organize Meizhou agricultural products to participate in national agricultural exhibitions and set up dedicated platforms to showcase Meizhou's characteristic agricultural products.

5.4 Optimizing the Logistics Distribution System:

Firstly, it is necessary to increase investment in logistics infrastructure. The government should increase investment in rural logistics infrastructure, establish county-level logistics service stations and village-level logistics outlets, and improve the rural logistics distribution network. At the same time, it is encouraged for logistics enterprises to increase their transportation capacity in rural areas of Meizhou and purchase advanced logistics equipment to improve the efficiency of logistics distribution. Secondly, develop cold chain logistics. Considering the perishable nature of agricultural products, the government should increase support for cold chain logistics.

6 Summary and Outlook

The agricultural live-streaming e-commerce development practice in Meizhou indicates that the deep integration of digital technology and agriculture holds great potential. It not only optimizes the structure of the digital economy through industrial collaboration, reconfigures the circulation chain of agricultural products through model innovation, and consolidates the foundation of digital economic development through employment, innovation and infrastructure upgrading, but also provides a feasible development path for underdeveloped regions and offers a feasible path for the "digital leap" of underdeveloped regions. Although it faces challenges such as talent and brand standardization, these problems can be gradually resolved through systematic policy implementation and market cultivation. In the future, Meizhou needs to further enhance the integration of "live-streaming e-commerce + agriculture", and promote the transformation of live-streaming e-commerce from traffic-driven to quality-driven. The case of Meizhou provides three insights: Firstly, transform resource advantages into digital competitiveness; Secondly, focus on the cultivation of the real economy, stimulate the participation vitality of multiple entities such as farmers and

enterprises; Thirdly, strengthen government guidance and continuously work on public service systems such as infrastructure standards. Only in this way can agricultural live-streaming e-commerce fully play its role in promoting the digital economy and inject lasting impetus into rural revitalization.

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