

# Research on the Upgrade Path of Agricultural Products Marketing Model Based on Rural-revitalized Live Broadcasting

Yiran Li<sup>1, a, †</sup>, Qianyi Sun<sup>2, \*, †</sup>, Fanke Zhao<sup>3, b, †</sup>

<sup>1</sup>Skyline College, San Mateo, Community College Distinct, San Francisco, the United State

<sup>2</sup>SHU-UTS SILC Business School, Shanghai University, Shanghai, China

<sup>3</sup>School of International Trade and Economics, Central University of Finance and Economics, Beijing, China

\*Corresponding author: Qianyi.Sun-1@student.uts.edu.au, <sup>a</sup>liyiran191230@gmail.com, <sup>b</sup>zfk\_2000@163.com

†These authors contributed equally.

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**Abstract:** The development of the Internet and e-commerce has given birth to the emerging marketing model of live broadcast and delivery. Selling agricultural products through live broadcast has become an emerging model to help agricultural product sales and promote development of agriculture and rural areas. We firstly did industry and background research, including changes in consumer consumption patterns, the status quo of rural development and live broadcast of agricultural products and so on. Based on these information, we further studied the main problems existing in the current marketing model of live-broadcasting agricultural products, including the uneven quality of agricultural products, the over-reliance on the anchor, the imperfect transportation and logistics system and the human resource gap in the industry. We then conducted in-depth discussions on these issues, and summed up feasible live-streaming marketing upgrade methods for agricultural products, such as adding Internet e-commerce platforms such as “Kuaishou” and “Tik Tok” as agricultural products sales channels, making full use of the 5G environment accompanied with HD live broadcast, AR/VR, holographic projection and other technologies to update the sales model. At the same time, this article has both practical and theoretical significance. It has certain reference significance in guiding the healthy development of the rural e-commerce economy and the upgrading of related fields in the future.

## 1. Introduction

### 1.1 Research Background

In recent years, poverty alleviation is an important part of China's work. Poverty alleviation policies also have been continuously improved. Under the in-depth integration of the Internet and big data, and the rapid development of live broadcast and e-commerce industries, live commerce has become a popular sales method in the contemporary era. Live commerce to help targeted poverty alleviation has also become the emerging product of the deep integration of rural revitalization and network poverty alleviation, leading the rural e-commerce models continuous innovation. In 2015, the Poverty Alleviation Office of the State Council proposed ten major projects for targeted poverty alleviation, and e-commerce poverty alleviation was officially included in the poverty alleviation policy system [1]. Through the live broadcast platforms to sell agricultural products has greatly helped farmers solve the problem of unsalable products caused by lagging market information, insufficient product promotion, and low visibility. In addition, live broadcasts to help farmers can effectively broaden the sales channels of agricultural products, also promote and sell agricultural products in a short time at a lower cost. Especially for agricultural products with a short shelf life, higher sales efficiency can avoid a lot of waste of agricultural products. The “Statistical Report on Internet Development in China” shows that as of March 2020, the number of live webcast users in China has reached 560 million, and the number of live broadcasts in the first quarter of 2020 alone

will exceed 4 million. According to the data from Tianyan Check, in the first half of 2020, China has added nearly 6,000 live-streaming related enterprises, and the construction of supporting systems for the live-streaming industry continues to improve [2]. In 2020, affected by the epidemic, the real economy has been severely impacted, then the advantages of live streaming will be further reflected. The live broadcast of agricultural assistance not only helps poor villages to get rid of poverty quickly, but also avoids the waste of high-quality agricultural products caused by the large amount of unsalable. With the continuous sales of agricultural products, the poor village will eventually form its own sales system and get its own sales channel to achieve long-term development. In the Internet age where information is spreading rapidly, promoting agricultural products through live webcasts can be assumed as a milestone stage.

## **1.2 Literature Review**

Zhang et al. found the main features of Live Broadcasting were convenience, intuitiveness, interactivity, economy and low threshold. Secondly, live broadcasts of goods can optimize the agricultural structure, create distinctive brand benefits, and lay a good foundation for subsequent sales. Then achieve the diversification of the rural economy [3]. Mao et al. analyzed the advantages of the live broadcast mode. Its low cost, wide audience, satisfying inert psychology and its affordability have promoted the development of live streaming. However, they also proposed the problems in the marketing model of live commerce. Live broadcasts are highly dependent, agricultural and sideline products vary in quality, and the market supervision system is not complete. This is not conducive to the long-term development of e-commerce in that region. Finally, they also provided some solutions to the problems of live commerce [4]. Liu proposed that the live streaming market is an effective marketing method to promote the upsurge of agricultural products, not the key part. Making full use of the form of live broadcasting, actively constructing the brand image of regional characteristic agricultural products, improving product credibility through live broadcasting, and constructing a reasonable regional agricultural product's e-commerce development model is the key to solving the problem of agricultural products upwards [2].

In the process of exploring the relationship between live broadcast of goods and agricultural products, most scholars have studied the impact of live broadcast of commodities on the sales of agricultural products and the promotion of agricultural development. As Zhang & Wang have proposed, live broadcast of goods can effectively deal with the difficulties in selling agricultural products [5]. In addition, some articles have also explored the potential problems in the live broadcast of goods. For example, Wang et al. have stated that there are problems in the design of live broadcast, the type, quality, and after-sales service of the agricultural products [6]. However, only a few scholars have explored how the live broadcast specifically affects the sales model of agricultural products, such as the influence of places, pricing, products, and promotions. At the same time, articles that shed light on how the rural economy has grown with the help of live broadcast are only a minority. Therefore, the purpose of this article is to explore how live broadcast has changed the marketing pattern of agricultural products and its impact on the rural economy.

## **1.3 Research Framework**

This article will cover the following aspects. The first is the methods, that is, the methods that we use to analyze the question. The second is the results. In this part, we will start with the analysis of the status quo of live-broadcasting sales of agricultural products, and then propose questions about the impact of live broadcast on the marketing model of agricultural products, and then analyze the problems through theory and research. The next part is discussion, in which we will solve the initial problem and provide optimization and improvement strategies. At last, it comes to the conclusion, which summarizes the results and the main findings, showing the research significance of this article.

## **2. Methods**

### **2.1 Comparative analysis**

We use comparative analysis method to compares different sale model now popular among agricultural e-commerce to find out the similarities and differences between them. This paper will compare the effectiveness of different marketing methods for unsalable agricultural products in rural areas to get the advantages and disadvantages of webcast sales and specific implementation methods.

### **2.2 Literature Analysis Method**

This article mainly uses public data collection and other methods to carry out. The research will first explore the development status and development prospects of the rural live broadcast delivery model [4], comprehensively sort out the existing business models, and discover the main development advantages and bottlenecks of the industry at this stage through data collection and analysis.

The next part will focus on the main development bottlenecks:

- Rural live commerce are not attracting high enough attention.
- Downstream market growth has slowed down significantly.
- B2C transaction mode cost control.
- Sustainable growth point of rural e-commerce business model.
- Rural live commerce related policies.
- Related talents and training mechanisms.

Based on the above issues, we will combine existing data and market prospects to give relevant suggestions to help the rural live commerce economy develop steadily and well.

## **3. Results**

### **3.1 Development Status and Trend Analysis of Live Broadcast**

With the continuous development of global mobile communication technology, especially after 4G has become widespread, live broadcast, a new means of communication, has been used on a large scale. Mobile Internet users, e-commerce users, and live broadcast users have all experienced explosive growth. According to data from the short video platform “Kuaishou”, in 2019, more than 19 million people received income from the “Kuaishou” platform, and more than 5 million people came from the national poverty-stricken villages. Among them, the number of people selling goods in Kuaishou is about 1.15 million in national poverty-stricken villages, and the total annual sales reached 19.3 billion [7]. In 2020, live commerce was further developed under the stimulus of the epidemic. Especially for some agricultural products with a short shelf life, the problem of unsalable products has been solved with the help of live broadcasts. China's live commerce is now in a period of rapid development.

### **3.2 Rural Development**

At present, there are still many rural areas in China whose living standards are very low, and the sale of agricultural products is the only source of income for the villagers. Although the food and clothing problems of the rural area were basically solved by the end of 2000, the ability of rural areas to withstand natural disasters is still quite weak. Most of the villagers live in places where the natural conditions are bad, the transportation is inconvenient, and the information is blocked. The survey found that many farmers have problems such as low sales of agricultural products, narrow distribution channels, and high sales costs [8]. Especially in 2020, due to the impact of the epidemic, the unemployment rate will rise, and the demand for agricultural and sideline products in catering, service, wholesale and other industries will be greatly reduced, resulting in poor sales and decay of farmers' commodities. Many farmers do not have any source of income, then the pressure on their lives has suddenly increased.

### **3.3 Changes in Consumption Patterns**

In today's fast pace of life, and the popularization of electronic mobile payments, there is a boom in live commerce. More and more people like to shop online. According to data from the China Internet Network Information Center, as of March 2020, the number of live broadcast users has reached 560 million, which is 40% of China's total population. Among them, the scale of e-commerce live broadcast users reached 265 million. The live broadcast has a wide range of goods, rich products, and low marketing costs. Each anchor tried the product in person and tested the product during the live broadcast to gain the trust of consumers and increase the customer's perceptual experience. In addition, consumers can usually receive the greatest discount during the live broadcast, which further meets the needs of consumers. Buying products through the live broadcast can not only save time, but you can also enjoy great preferential policies and quickly know the quality and functions of products. This has firmly captured the most fancy points of consumers.

### **3.4 The Status Quo of Live Broadcast of Agricultural Products**

At present time, the majority of online sales of agricultural products rely on Alibaba's Taobao live broadcasting platform, some other e-commercial live-broadcasting platforms, such as Jingdong, are also widely chose. According to Xu, there are mainly three patterns of online sales of agricultural products: namely individual farmers' live-broadcasting sales model, government endorsement support model, and celebrity-assistant selling model [9]. Generally speaking, the model of selling through live broadcast saves more costs than offline sales, such as store decoration costs and a plenty of human resources. Meanwhile, it can also attract a large number of customers in a very short time, which largely improved the sales efficiency.

In recent years, live broadcast of agricultural products has been rapidly developed. According to Ministry of Agriculture and Rural Affairs of the People's Republic of China, in 2020, the national online retail sales of agricultural products in China reached 350.76 billion yuan, an increase of 29.0% is realized compared to 2019 [10].

The fast development of live broadcast of agricultural products can be attributed to two major reasons. In addition to the convenience of live purchasing that is gradually changing consumers' consumption habits, which has been discussed previously, the policy support has also promoted the sale of agricultural products by live broadcasting. Xu has stated that "Key Points of Online Poverty Alleviation Work in 2020" took rural e-commerce and online agricultural products sales as the focus of rural revitalization in 2020, providing a policy impetus for live broadcast of goods. Zan and Wang also proposed that as one of China's "top ten targeted poverty alleviation projects", e-commercial poverty alleviation is an effective way to promote the connection between small agricultural production and large market, strongly stimulate the sales of agricultural products, and drive rural people out of poverty and get rich [11].

### **3.5 Problems Need to be Solved in Live Broadcast**

Although the live broadcast of agricultural products is experiencing a fast growth, there are still some problems remained that need further improvement.

First of all, the quality of agricultural products sold by live broadcasting is uneven. Although live broadcast can help agricultural products achieve rapid sales, their quality is hard to guarantee. Many customers have complained that the goods were inconsistent with the anchor's description after receiving the goods. Moreover, some of the vegetables and fruits were even rotten.

The second problem is that the live broadcast sales of agricultural products highly depends on the choice of anchor. Based on Mao, Chen & Wang's research, live broadcasting anchored by government officials and celebrities tends to perform much better than that by ordinary anchors, which means agricultural products themselves rarely form brand influence through live broadcasting [12].

Then, the transportation and logistics system in rural area is weak. In addition, according to Jiang, due to the remote geographical location in rural areas, agricultural products are perishable, and the

lack of cold chain logistics directly increases the loss of agricultural products in the transportation process and increases the sales cost of e-commerce [13].

The last problem is that the human recourse gap in rural e-commerce gap is big. Live broadcasting of agricultural products requires compound talents who understand agricultural knowledge and know about live broadcast to promote agricultural products. Nevertheless, most rural practitioners lack e-commerce knowledge, practice and management experience.

### **3.6 Causes of the Problems**

These problems arose due to the following reasons. On one hand, the lack of unified standards and imperfect market supervision for live broadcast sales of agricultural products lead to quality problem of the agriculture products. Due to the lack of production standardization, even if farmers have the ability to cultivation, there are still lack of market concept, awareness and specific standards for controlling the quality of agricultural products. Besides, a clear access system for the anchor and agricultural products has not been build, and there is no explicit punishment mechanism for illegal operations in live broadcast, which leads to the existence of use of false publicity of celebrities and data fraud, resulting in the reduce in consumers' trust in the products according to Liu, Deng & Li [14].

On the other hand, the competitive threat from other online shopping channels and the backward marketing mode of live broadcast of agricultural products make it difficult for agricultural products to form brand effect through live broadcast. As Xu, Ding & Yu once proposed, the way of selling agricultural products through live broadcast is single, lack of innovation, thus it is hard to attract the consumers [15]. In the live broadcast process, most agricultural products are limited to be displayed only the quality and appearance of products, lacking detailed extension, so the consumers usually do not know the story and the cultural connotation of them, resulting in homogenization of agricultural products. This will lead to audience fatigue and cause the products lose their competitive advantage. In this case, it is difficult to establish a good brand image in the hearts of customers, and it is easy to be replaced by other similar products.

Lastly, the backward infrastructure in rural areas makes logistics, cold chain system unable to keep up with the demand for live broadcast of goods. Compared with cities, rural infrastructure construction is obviously lagging behind, which not only causes inconveniences in local transportation, such as narrow roads that prevent large trucks from transporting goods normally, but also increases the cost of live broadcast due to the low network coverage and poor network stability.

## **4. Discussion**

### **4.1 Talent Training & Infrastructure Building**

Introducing e-commerce talents and building professional team. The development of the rural e-commerce live broadcast economy requires the introduction and creation of a high-quality e-commerce talent team to lay a solid talent foundation for the development of the e-commerce economy. At the same time, it is necessary to strengthen the overall optimization of the capabilities of local talents, and create flow-based head talents for “live streaming”. The specific measures are as follows: one is to introduce high-level e-commerce talents back to their hometowns for entrepreneurship and employment; the other is market-based recruitment, hiring experienced e-commerce teams to build a local rural business live broadcast platform.

Improve the rural logistics system and expand sales channels. On the one hand, improve the construction of the logistics infrastructure in rural areas, especially poor villages and remote rural areas, and provide a multi-level and multi-channel logistics distribution system for the transportation of agricultural products on the e-commerce live broadcast platform [16]. On the other hand, the development of e-commerce live broadcast models cannot be limited to e-commerce platforms. The fast-developing short video platforms such as “Kuaishou” & “Tik Tok” can also become platforms for selling agricultural products. It is necessary to create more sales channels through ‘Agricultural Products Live Channels’, so as to realize the development of the rural economy.

## 4.2 Marketing Strategy

Integrate the upstream and downstream of the industrial chain to promote development. The first is to encourage manufacturers in the supply chain of the industry to cooperate with brand owners, gain insights into user needs through the interaction between downstream streamers and users, plan and design supply plans, and improve the operating efficiency of the industry chain. The second is to encourage upstream brands to join forces with the platform to establish closer partnerships, and implement a development strategy that shifts from a single demand to a long-term cooperative development, downstream streamers produce better quality content with the help of the platform and finally form copyrights. The third is to promote the formation of e-commerce live broadcast industry standards through the integration and reshaping of the industrial chain, coordinate the division of roles in all links of the industrial chain, and give play to the advantages of the entire supply and marketing chain.

Explore the development model of e-commerce live broadcast in the 5G environment. The application of 4G communication technology has promoted the rapid development of the e-commerce live broadcast mode, but restricted by speed and traffic, users cannot enjoy a better shopping experience. The emergence of 5G can give full play to the advantages of the e-commerce live broadcast model. One is to continue to explore the path of applying HD live broadcast, AR/VR and holographic projection technologies to e-commerce live broadcasts, innovate sales models, and provide users with better quality and more realistic full-scene, immersive experience, and enhance consumers' shopping experience. A sense of participation and interaction. The second is to accelerate the development of the Internet of Things under 5G technology, improve the efficiency of warehousing and logistics, and reshape the relationship between people, goods, and things under the e-commerce live broadcast model.

## 4.3 Government Initiatives

Increase policy support and encourage the development of rural e-commerce live broadcast economy. The development of rural e-commerce live broadcast economy requires multi-dimensional policy support from the local government. First of all, the local government should increase subsidies for outstanding e-commerce companies, encourage e-commerce companies to innovate and support the development of e-commerce business, especially to increase subsidies for the development of "live broadcast poverty alleviation" related businesses. Secondly, the local government should pay full attention to the brand awareness of local characteristic agricultural products, select high-quality agricultural products that are conducive to local characteristics, establish brands, and realize brand marketing of agricultural products. Finally, the local government should further strengthen the construction of the e-commerce live broadcast related industry chain, such as through the introduction of the relevant characteristic agricultural product processing industry chain to achieve local farmers' employment, attract farmers to return to the village, and build the rural economy.

Intensify supervision to protect users' right to know and choose. For platform anchors, it is necessary to eliminate the behavior of buying fans, adding false comments, and endorsing false and inferior products and services. Regulatory departments should further improve Internet laws and regulations, penalize black data industry chain organizations that infringe on the legitimate rights and interests of consumers and operators, and increase the supervision and punishment of fraudulent acts.

## 5. Conclusion

With the continuous improvement of global mobile communication technology, Internet+e-commerce is developing rapidly. Especially affected by the epidemic, live broadcasting has become a popular sales method nowadays. Meanwhile, the rise of emerging industries has also brought help to backward and poverty areas. Most of the poverty-stricken areas are remote, with backward information, technology, and awareness. Most of the agricultural products have problems such as low sales, limited circulation channels, and high sales costs. Selling products through live

broadcasts can increase the popularity of their products and let more people to learn more about their local special agricultural products. Thus, it can broaden the sales channels of their agricultural products at a very low cost and efficiently, and bring help to poverty alleviation. In addition, poverty-stricken areas should also continue to introduce e-commerce talents and build a professional team. Build their own special agricultural products live broadcasting platform in the area, so as to realize the long-term development of the area. Also, the government should increase policy support to encourage the development of rural e-commerce live broadcast economy and achieve long-term poverty alleviation. Therefore, the use of live broadcasting to sell goods can not only solve the urgent needs of farmers, but also open new markets for e-commerce and achieve long-term development. Therefore, based on the poverty-stricken environment that still exists in many rural areas, research on the live broadcast to help farmers has great significance in today's society.

However, this article still has some limitations. On the one hand, this article is mainly a conceptual analysis, which clearly describes the concept of live broadcast to help rural economics and the development status of related fields, but relatively lacks in data analysis. Most of the data we use are second-hand data and lack the use of primary data. On the other hand, the description of the current situation of the village in this article comes from the research of news, documents and other materials, rather than field investigation.

In future research, we will use more data to explore whether there is a positive correlation between the GMV of rural live broadcast local economics. At the same time, we will also conduct more in-depth investigations and studies on rural area, and draw reliable conclusions based on the actual situation.

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