Research on the Live Broadcast Operation Strategy of Agricultural Products E-commerce

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Abstract. With the national rural revitalization programme and the development of e-commerce in rural areas, live broadcast of agricultural products has become hotspots recently. Farmers hope to catch the express train of live broadcast, sell agricultural products and broaden the road towards wealth. However, there are constraints on internal conditions and external environment on live streaming. That is, in terms of internal conditions, live broadcast of agricultural products is restricted by product attributes, live streaming talent and online network technology and operating experience. In terms of external environment, with the competition and reconstruction of the online live broadcast platforms in 2020, the threshold for live broadcast will be raised, and agricultural products are still unpopular in the live broadcast e-commerce industry. Live streaming of agricultural products is in those low-frequency items. The article proposes an operation strategy in the live broadcast for agricultural products of average farmer households based on SWOT analysis, and then proposes its implementation principle of minimizing constraint conditions + maximizing product value, which can help average farmers use e-commerce channels to operate a practicable live broadcast.

Keywords: Live Broadcast, Operation Strategy, E-Commerce, Agricultural Products

With the continuous deepening of "national rural revitalization" and "precise poverty alleviation", e-commerce poverty alleviation as one of the country's "top ten targeted poverty alleviation projects" was clearly proposed by the central government of China in 2015. In November 2016, the Guiding Opinions on Promoting E-commerce Targeted Poverty Alleviation. In November 2016, the "Guiding Opinions on Promoting E-commerce Targeted Poverty Alleviation" jointly issued by 16 ministries including the State Council's Poverty Alleviation Office stated that rural e-commerce "has become the transformation of the rural economic development mode, optimizing the industrial structure, promoting trade circulation, and driving innovation. An important driving force for employment and increasing farmers' income".

With the support of the Chinese governments at all levels, rural cadres across the country have continued to promote e-commerce of agricultural products, and major online platforms have also taken advantage of this opportunity. For example, Taobao launched the "Village Broadcasting Program" on live broadcast by the county magistrate in 2019, and 300 county-level officials live on Taobao [1]. In
the first quarter of 2020, despite the impact of the epidemic, the online retail sales of agricultural products increased by 31.0% year-on-year, reaching 93.68 billion yuan, and e-commerce live broadcasts exceeded 4 million times [2].

Agricultural product e-commerce has brought optimization of the economic structure, income to farmers, and new forms of local development. colleges. At the same time, there are also difficulties and bottlenecks in transition. For example, whether live streaming is a "long-term strategy" for agricultural product sales, and whether it can become a new channel for agricultural product retail, "the deep-rooted contradiction between small production and large market" has not been resolved [3]. Therefore, this article studies the operation strategy of ordinary farmers’ agricultural products e-commerce live broadcast base on the background of e-commerce live broadcast.

1. Review of Related Research Literature

Yiwen Du and others believe (2018) that “agricultural products + live broadcast” should be used to maximize the effect of “choosing a live broadcast platform, telling stories about agricultural products, and building a good brand”[4]. Zhihe Wang (2020) believes that it is necessary to "actively explore the integration of new technologies and various fields of rural economy and society", such as the live broadcast + VR model [5]. Mengying Zan and Zhengbing Wang (2020) start from the live broadcast platform infrastructure, integrity construction, building a local live broadcast network, improving a new model of leading live broadcast, and helping frontline farmers to participate in the web live broadcast has given a path for agricultural product e-commerce live broadcast to drive rural poverty alleviation [6]. Zhaohao Shi et al. (2020) put forward the corresponding regional branding strategy of agricultural products through case analysis [7]. Zhijian Liu (2020) believes that live e-commerce development of agricultural products should establish a sense of ingenuity, focus on packaging and brand strategies, and master live broadcast skills at the micro level [8]. Na Guo and Xiangfen Cheng (2020) put forward some suggestions on promoting online sales of agricultural products from the perspective of Internet celebrity economy, promoted the construction of Internet celebrity brands and agricultural products brands, in-depth cooperation with e-commerce platforms, improving the quality of agricultural products, and rationalize the prices of agricultural products in live broadcast [9]. Xihong Han (2020) believes that the model of "short video + live broadcast + e-commerce" should be furthered to promote the normalization of agricultural product live marketing in terms of products, anchor team, brand building, agricultural production layout, and specialization of "village net KOLs" development [10].

The above-mentioned research puts forward different suggestions on the development of e-commerce live broadcast of agricultural products, which can be divided into two aspects: macro and micro. On the macro level, it is proposed to explore new technologies in rural areas, strengthen the construction of platforms, create a new model of rural live broadcast, encourage returning talents to participate in the network economy, and improve the agricultural product supply chain. On the micro level, it is proposed to build brands, focus on packaging, improve the quality of agricultural products, they put forward suggestions such as shaping the brand, focusing on packaging, improving the quality of agricultural products, marketing special agricultural products, creating social media influencer, telling stories about agricultural products, and using different forms of communication. The above discussion has its own rationality, but its main shortcoming is that when discussing strategies, paths and other countermeasures and suggestions, it should be considered from the perspective of response but not reality, and it is more practical to put the problem on the subject of e-commerce live broadcast and the subject's optional strategy under constraints. Only after defining the main body of the webcast, the operability of its e-commerce live broadcast can be highlighted, and then can the advantages and disadvantages of its e-commerce live broadcast and corresponding operating strategies be analyzed. A large number of small and medium-sized farmers who operate agricultural products are representative, so this article uses small and medium-sized farmers as the main body of operation to study how to maximize the strengths and avoid weaknesses of agricultural products in the e-commerce live broadcast environment to carry out the optimal operation of normalization.
2. Changes and Basic Reality of The E-commerce Live Broadcast Industry
In recent years, the e-commerce live broadcast industry has developed rapidly, and social media influencer have once again stimulated the vitality of the e-commerce live broadcast industry. The web live broadcasting industry of various connected e-commerce platforms is developing rapidly, which is estimated that the industry scale will reach 400 billion in 2022, and the impact will affect multiple industries and social levels. In view of the prominent economic benefits of live webcasting, some traditional industries are also "lonely and unbearable", and have followed up with the live broadcast of social media influencer, hoping to "overtake" on the road of the new network economy. However, as the "vehicle speed" of e-commerce live broadcasts has accelerated, the symptoms of "unacceptable" in the traditional economy have appeared from time to time. In order to prevent entering the "new economy" trap, agricultural products entering the e-commerce live broadcast industry should sort out and analyze the e-commerce live broadcast environment.

2.1 Social Media Influencer of E-commerce Livestreaming
Resources of social media influencer are scarce. Social media influencers and live broadcasters can bring huge goods-selling effects to products. According to data from iResearch, Taobao has 20,000 anchors. Jiaqi Li sold 15,000 lipsticks in 5 minutes live broadcast, and, three products sold over 100 million Yuan in 30 minutes of Mingzhu Dong’s live broadcast [11]. Internet stars, social media influencers and KOLs carry a large amount of goods, but they account for a small proportion of the entire live broadcast army. These few live broadcast celebrities have a significant head effect instead of long tail effect, with 3% of the video broadcasts accounting for more than 80% of users' attention. The top users with more than 10,000 followers on TikTok are only 4.7%, but the overall user coverage rate is as high as 97.7%. [12] The commissions and fees of Social media influencers’ live broadcasts are expensive, so for low-profit agricultural products, it is not easy to hire expensive live broadcasts that can bring goods.

Social media influencers have been operated from "single fights to team operations". After Ziqi Li returned to his hometown in 2012, the business of opening a Taobao store was bleak. After the operation of the company team, the sales scale was formed in 2018 [13]. The live broadcast follows the example of Li Ziqi, but imitating the example can only bring strength, not success. In fact, it is difficult for a large number of ordinary farmers to take advantage of live broadcasts by stars, social media influences and official of government. As an MCN (Multi-Channel Network) which specializes in training and brokering network anchors, which has grown. In 2019, there are more than 20,000 MCN organizations, and MCN organizations that have been established for more than 3 years, with an organization of 100-300 people, nearly 30% of the top enterprises have nearly 100 million Yuan in revenue [14].

The marginal benefit of influencer marketing is diminishing. With the influx of sales of various products, a large number of influencer marketing of live broadcast not only lack talents, but their ability to sell goods also needs to be improved. While webcast stars, talents, and social media influencers occupy the head resources, a large number of ordinary live broadcast hosts have limited influence. Some stars and KOL masters also frequently overturned their cars during the live broadcast. For example, the anchor Simba sells fake bird's nest, and Han Wang’s live broadcast had a return rate of over 70% [15].

2.2 The Function of Traffic in E-commerce Livestreaming Operations
In the online purchase funnel model AIDAS (Attention, Interest, Desire, Action, Satisfaction), A, attention which is a gate for the rest parts such as desire, action, satisfaction means network flow. After years of development, the number of netizens has slowed down, and platforms and businesses are competing for netizens with limited growth. E-commerce live broadcast platforms are divided into e-commerce live broadcasts and short video live broadcasts. The former has large platforms such as Taobao and JD. Besides, Pinduoduo has emerged as a new force in recent years. Short video platforms include TikTok and Kwai, which occupy the top 3 in live broadcasts. Many social e-commerce and
micro-businesses are also constantly fighting for the resources of netizens. There are many kinds of promotional activities; for example, the Double 11 Shopping Festival and the 618-shopping festival have a wide range of titles and live broadcasts in various ways. There are different display methods such as fan personality, professional selection, intuitive display, and real-time interaction. All conflicts are focused on competing for the attention of consumers.

2.3 Operation Generates Live Broadcast Marketing Effects
The e-commerce selling goods is less dependent on KOLs.

As mentioned above, the popular live broadcast is not so effective as what the outside world recognized. Furthermore, the outside world believes that an anchor, giant or KOLs can easily complete the entire commodity transaction by "stretching witty words" in the live broadcast room. In fact, Live streaming e-commerce requires careful selection, packaging, pricing, traffic acquisition, and traffic conversion in advance. As described by the iceberg theory, live broadcasting is only the part that the outside world can see, and a large number of business activities need to be completed behind the scenes. The commercial value chain includes creativity, design, manufacturing, marketing, pricing, trading, warehousing, transportation, and after-sales [16], and none of them in the supply chain can be missed. For small and medium-sized peasant households who do not have strong strength in e-commerce live broadcasts, one of the commercial value chain should be selected as the main business.

Operation of e-commerce live broadcast focuses on products.

The ability to sell products is manifested in language ability, rendering ability, image "value", etc., but the rendering of any of the above is inseparable from the products sold. If operating a kind of agricultural products, focus on product quality, packaging, logistics to do a good job. If operating a series of products, try to choose a product to do the focus of live broadcast, do specialized fine. Although the goods are sold out for a while, the cost of returning them will be disastrous. For example, Han Wang live broadcasts a certain night washing machine to return nearly 80%, indicating that the quality of the product is not good or the product is exaggerated will produce bad benefits [17].

E-commerce platform traffic algorithm updated irregularly.

E-commerce platforms have a trend of “winner takes all” in the industry. It is a professional thing to understand the IT background knowledge of e-commerce platforms, such as platform algorithms, traffic evaluation, promotion effects, and numerous network terms. Taking the TikTok as an example, its algorithm is based on "basic collaborative filtering", accurate push based on "decentralization", and overlay recommendation based on "traffic pool" [18]. For ordinary farmers, every node is an information barrier, and the "knowledge gap" in the information age has a deepening momentum. With the involvement of e-commerce and short video platforms in live broadcasting, the industry oligopoly structure has gradually formed after several years of development, which has obvious advantages in information technology for small and medium businesses.

3. Operation Strategy of Agricultural Product E-commerce Livestreaming
The products of agricultural products are defined as the primary agricultural products referred to in the Quality and Safety Law of Agricultural Products, which are the plants, animals, microorganisms and their products obtained in agricultural activities. Primary agricultural products are divided into plantation, animal husbandry, fishery products and such products that do not include processing.

3.1 SWOT Analysis
The SWOT analysis is a method of analyzing the internal and external conditions and environmental situation of a company. Due to its concise and clear tools, it is still one of the commonly used tools for companies to make decisions. SWOT analyzes four parts: Strength, Weaknesses, Opportunity, Threat, and makes strategic choices on this basis. Strengths and weaknesses refer to strengths or weaknesses that come from within the enterprise. Opportunities and threats refer to external opportunities or challenges brought to the enterprise. In other words, the advantage comes from the source of agricultural products under the current consumption fashion that advocates natural health, the fine
management of family operations, and the efficiency of land output per unit area[19]. The main disadvantage is that ordinary farmers have weak information processing capabilities and product marketing communication capabilities for operation of e-commerce livestreaming. Opportunities come from the maturity of the current live broadcast e-commerce platform, logistics and local supporting policies. The threat comes from the homogeneous competition of agricultural products, the instability of seasonal production of products, and the information asymmetry of e-commerce live broadcast platforms.

3.2 Operation Strategy
Based on SWOT analysis, the corresponding operation strategies SO, WO, ST, WT are derived here. SO refers to the use of opportunities and advantages, and SO is to make full use of external opportunities and exert its own advantages; WO refers to the use of external opportunities to make up for internal disadvantages; ST refers to the use of advantages and avoiding threats; WT refers to reducing disadvantages and avoiding threats. Therefore, the strategy of e-commerce live broadcast of agricultural products based on ordinary farmers (see table 1).

Table 1. Live Broadcast Operation Stategy for Agricultural Products E-commerce

| Internal Factors | Strengths | Weaknesses |
|------------------|-----------|------------|
| ●The advantages of the originals | ● preservation of the products due to the fresh-keeping |
| ●The fine management by the families. | ● Lacking information processing techniques |
| ●The diversification of goods | ● Less Marketing communication skills |

| External Factors | Opportunities | Threats |
|------------------|--------------|---------|
| ● The inelastic need of the organic produce | SO: -Stresse the original of the local products. -Underline the natual growth or organic food to good heath -Make full use of the government support -live broadcasting on growing crop,showing more details of goods | ST: -Produce the products with regional features -Use little packets and target segment market -Reduce the cost of platform traffic |
| ● The developed network platform, logistic and infrastructure even to the countryside | WO: -Learn the basic information technology of live stream other than over-live -Improve package and arrange anti-season farm produce -Join in the local mutual aid communities. | WT: -Do not rely on social media celebrities or KOL -Avoid virtual traffic traps |
| ● The support policy and assistance of the regional government | | |

4. General Principle for Operational Implementation
On the basis of this strategy, it is proposed that the general principle of the implementation for ordinary farmers' live broadcast is to minimize constraint conditions + maximize product value. That is to do "subtraction" on external constraints and "addition" on product value.

4.1 Minimize Constraints
Reducing dependence on online KOLs is because the high prices of top influencers are no longer reachable. According to TikTok’s public rate card, the hourly live broadcast price of an ordinary Internet celebrity with 30W fans is also around 5,000 to 10,000 yuan. It can be seen that such a high live broadcast cost is not a small burden for agricultural products of low value; hence, the store anchor will become the main form of live broadcast in the future operation, relying on the people and seek a shot and red is not realistic. Solidly on the product to do a real, accurate introduction is familiar with farmers and feasible methods.

The core that e-commerce relies on to bring goods is the acquisition of its traffic. The obstacles that currently plague e-commerce live broadcasts are the technical barriers to traffic acquisition and the cost of acquisition. The utilization rate, the conversion rate, and the activity of the live broadcast room are not a small knowledge barrier for farmers, and they cannot blindly pursue traffic. Farmers should tell the story of your own agricultural products in order to accumulate natural flow.

Naturalize traffic acquisition.

Website traffic comes from passive redirects and active searches of customers. The basic logic of the platform's traffic algorithm lies in the matching of content and people, that is, "recommend matching content to users" and "decentralized" intelligent distribution. Encourage ordinary users to generate content, called UGC[20]. For ordinary farmers, there is no need to fall into the flow of the puzzle, and to make distinctive products, their flow will increase naturally and continuously. This is not only the conclusion of the previous SWOT analysis, but also consistent with the algorithmic logic of the e-commerce platform.

4.2 Maximize Product Value
Specialization and differentiation of product management.

The maximization of product value is not the number of product varieties operated. Firstly, e-commerce business requires "explosive products", that is, a hot product, rather than many mediocre products. There are three types of competitive strategies proposed by Michael Porter: total cost leadership strategy, differentiation strategy and specialization strategy. The specialization strategy refers to the segmentation of a certain product line or a specific customer group, which is in line with the operating characteristics and operating conditions of small and medium farmers. Its advantage is to occupy the live broadcast room of a specific product for a long time, which is convenient to create a specific label and search. Secondly, specific agricultural products should also run through the differentiation strategy, and try to distinguish between varieties, taste, origin, brand image and packaging from other similar products in the operation. The above is the operating characteristics of agricultural products, the characteristics have come out, there are also rich content in the live broadcast, rather than boring forced interaction.

Leveling of live streaming.

In 2020, the ranking of factors considered by Chinese online shopping users for product quality, product quality and whether it is genuine accounted for 66.3% and 55.9%, ranking in the top 2 [20]. It can be seen that in the history of e-commerce development for more than ten years, despite changes in C2C, B2C, micro-commerce, social e-commerce, e-commerce live broadcast delivery, and consumption upgrade iterations, product quality and authenticity are still the primary factors for current online shopping. E-commerce live broadcast of agricultural products should directly focus on the quality and emphasize the authenticity of the source. The use of traceable QR code and the attributes of geographic landmarks of agricultural products is to strengthen live broadcast sales. The tone of the live broadcast should be based on the "flat and straightforward" of the "product details page", which is a feasible way under limited resources.

5. Conclusion
This article analyzes the opportunities and threats in the live broadcast environment of agricultural products e-commerce and the advantages of ordinary farmers' agricultural e-commerce live broadcasts by using SWOT situation analysis, and further uses SWOT's four combination strategies to point out
the operation strategy of agricultural live streaming e-commerce. Furthermore, using Michael Porter's three corporate competitive strategy tools to proposed that agricultural product e-commerce live broadcasts should adopt a specialized and differentiated product strategy in implementation. The general implementation principle is to minimize constraints and maximize product value. As the distribution and morphology of rural households in China are different, the e-commerce live broadcast operation strategy is also rough. With the development of 5G technology, MR mixed reality, and the improvement of the quality of returning farmers, e-commerce and e-commerce live broadcast will usher in greater development.

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