The Investigation of the Improvement of Agricultural Product Uplink Based on Rural E-commerce

Zhaohan Chen\textsuperscript{1,*} and Li Shi\textsuperscript{2}

\textsuperscript{1,2}Chengdu University of Information Technology, Chengdu, China

*Corresponding author email: maoshidan1@163.com

Abstract. Agricultural product uplink (APU) refers to selling agricultural products produced in rural areas from the place of origin to various regions across the country with the help of advanced Internet technology, so that the agricultural and information technologies can be organically combined to achieve the sales of agricultural products on the Internet platform. APU can promote the integrated development of urban and rural areas in our country, thereby helping the country to head towards common prosperity. However, China’s APU is difficult to be effectively carried out across the country. Therefore, this paper hopes to do some deep researches through this issue, gathering some information about rural E-commerce at home and abroad and pointing out that there are still some problems. Based on this, putting forward the corresponding solutions in order to create a complete system of theory further to help guide to raising people’s consciousness and ability on APU.

The results show that there are indeed great obstacles during the development and implementation of APU, such as the failure to achieve the standardization and branding of agricultural products, as well as the shortage of talents. Nowadays China should do a good job in improving the quality of agricultural products, building characteristic brands, and vigorously cultivating rural E-commerce talents to promote the development of agricultural products. It is still a long way to go for APU to achieve significant results.

1. Introduction

1.1. Research Background

Agricultural product uplink (APU) refers to selling agricultural products produced in rural areas from the place of origin to various regions across the country with the help of advanced Internet technology, so that the agricultural and information technologies can be organically combined to achieve the sales of agricultural products on the Internet platform. Thus, two sales channels are formed in this process: online sales and offline sales, and the expanded sales channels can help farmers to increase income. APU can promote the integrated development of urban and rural areas in our country, thereby helping the country to head towards common prosperity[1].

The implementation of rural E-commerce requires a lot of efforts, but the most important part lies in APU, which is the premise of truly addressing other existing problems in rural E-commerce, like talent training.

1.2. Research Status at Home and Abroad

Relevant data show that foreign scholars have conducted studies on APU in the field of rural E-commerce, pointing out that the efficient circulation of crops such as wheat and cotton is an
indispensable content in the planning of new-type urbanization in countries around the world. Meanwhile, they proposed the knowledge-oriented intelligent E-commerce system for the sales of agricultural products. Since China is a large agricultural country, there are a large amount of information on rural E-commerce, agricultural product E-commerce, and cultivation of rural E-commerce talents. In addition, China's agricultural products are currently facing frequent problems, thus there are abundant domestic researches regarding this field. The foreign agricultural E-commerce has formed a certain scale internationally. For example, in the United States, many large-scale agricultural products E-commerce companies have developed trade relations with markets around the globe, and this form of trade is being globalized and imitated by more and more countries. In contrast, China is at a disadvantage in term of the standardization of agricultural products, with weak ability of APU domestically, and weak competitiveness of agricultural products internationally.

1.3. Research Significance
APU is important because it is the inevitable result of the close integration of traditional agriculture with today's advanced Internet information technology to achieve economic benefits. At present, rural E-commerce is growing rapidly, and the key to its generation and development lies in the organic combination of logistics, capital flow and information flow, which is the reason why it is necessary to establish and open two new logistics channels, with one focusing on the online sales of agricultural products, and the other highlighting the offline sales of industrial products, so as to achieve two-way circulation. However, the traditional E-commerce platform of agricultural products emphasizes the circulation of rural commercial trade and economic activities, which deviates from the direction and goal of APU. Therefore, this study summarizes some existing problems in the APU based on the current development and situation through in-depth research, and proposes corresponding measures, hoping to provide a complete idea and systematic theory for guiding the implementation of APU.

2. Existing Problems

2.1. Insufficient Branding and Identification
The disadvantage of agricultural products is the lack of unique identification and brand characteristics. Consumers tend to buy representative agricultural products in a certain area. What if an area lacks distinctive brands? First, the marketing cost of agricultural products will increase exponentially, and due to the absence of distinctive brands, various agricultural products will appear homogeneous and are unable to attract consumers, which will hinder the APU. In many rural areas, E-commerce practitioners have not produced agricultural products with regional characteristics, so these agricultural products are similar to those in other areas, making it difficult to distinguish these products, thus the uniqueness of their products cannot be reflected.

2.2. Lack of Awareness of Standardization
There are complete assembly and manufacturing process for industrial products. However, the processing of agricultural products has always been rough, without complete refining and a standardized production and processing process.
Due to a wide variety of agricultural products, there are large differences among various agricultural products, and the quality also varies greatly[2], making it difficult to formulate uniform standards across the country as for daily commodities. Taking apples as an example, there are both large and small, good and bad apples in a box of apples, which means that the taste, color, and size of each apple will not be the same, leading to difficulty in the standardized certification of agricultural products. Therefore, a chain reaction will be triggered, causing various problems in logistics, price, sales, and services of agricultural products E-commerce.
Nowadays, customers are more professional in screening product. They have high standards for agricultural products, and are more demanding for sellers. The APU achieves reasonable and effective sales not only by placing the products on the Internet for sale, previous to this, the products need to be packaged into commodities, and before the commodity is standardized (sorted, quality-controlled, and packaged), the commodity is essentially still a product. The process of turning a product into a
commodity is the process of turning it into a form that customers can buy and use safely. The seller should have a clear understanding of the value of the commodity to the customer, the frequency of the customer's use of the commodity, and the specifications of the packaging box. In addition, the seller should explore other needs of customers and market information to selectively implement commercialization and standardized process of their own agricultural products.

2.3. Lack of E-commerce Talents
The common problem facing the E-commerce practitioners is the insufficient marketing management skills and the ability of operation organization. Because of the limitation of the operation philosophy and the lack of organizational capability, currently, only a small number of E-commerce practitioners are engaged in the APU, and most of the Taobao partners in rural areas are still working alone, without a professional operation and management team. Therefore, the vast majority of Taobao merchants are unable to conduct APU sale.

The second is the shortage of excellent E-commerce operation and management talents. According to the survey, the E-commerce talents whom most of the traditional agricultural product processing enterprises and E-commerce enterprises in China want to cultivate most are operation and management talents. However, since China's E-commerce industry is still in a preliminary stage, the talents who are familiar with the International agricultural market and talents of E-commerce management and operation are desperately needed.

3. Countermeasures and Suggestions

3.1. Building Distinctive Brand of Agricultural Products
At present, many agricultural products in China are facing a common problem: the difficulty in APU, that is, although there are good and high-quality agricultural products worthy of being promoted in the market, it is difficult to sell them directly through the Internet platform. The large demand for high-quality agricultural products in first-tier cities in China has brought the opening of sales channels for high-quality agricultural products into top priority. In the process of achieving uplink sale, it is especially critical to build high-quality brands and integrity. In particularly, for the agricultural products sold online, brand building shows the quality and integrity of agricultural products. As long as the agricultural products have good quality and brands, an excellent conversion between brand sales channels can be achieved regardless of what kind of sales channels.

In terms of the construction of public brand system for agricultural products, most districts and counties focus on the construction of public brand in the entire region. However, the problem is that there exist both good and bad agricultural products in the same region. By authorizing regional public brand, the government can formulate a unified standard for product quality, thereby improving product quality. However, what has to be considered is that in this process, if the government wants to severely crack down on the counterfeited agricultural products of the regional public brand, it needs to conduct market supervision from multiple levels.

However, the crackdown on counterfeit agricultural product brands along is not enough for thoroughly solving the problem. Only by relying on the regional public brand (because it is the way which conforms to the logic of market economy most) and creating core enterprises and corporate brand representing it can the regional public brand of agricultural products be maintained for a long time.

In this regard, there is a typical example in New Zealand: the kiwi fruit. New Zealanders unify the regional brands and hand them over to a single organization. Therefore, the first thing is to form a regional public brand during the APU process, and then crack down on fake brands. More importantly, the advantage of "regional parent brand" should be rationally utilized. For the sub-brands of enterprises, people should make efforts to cultivate and improve the scale of production, meanwhile, the supply chain should be vigorously integrated, so as to form a perfect combination of regional public brand and enterprise's own industrial brand. In this way, the brand advantages of each region will be transformed into market advantages, which is conducive to improving the economic and social benefits of the industry, thus promoting the steady development of the industry.
3.2. Construction of Standardized Production Scene

Based on fully tapping the agricultural product industry with distinctive advantages, the standardized management and quality control of varieties before and after the processing of agricultural products should be strengthened according to the characteristics of agricultural products. Before production, standards for various varieties need to be formulated, including the standards for seedling cultivation of agricultural product and environmental standards for agricultural production. In the production process, the quality of agricultural products can be greatly enhanced by strictly controlling the technical standards for the use of fertilizers and pesticides, field management and agricultural production. After production, the establishment and improvement of the study on grading standards for picking and production can be intensified, and at the same time the standards for packaging and processing should be re-determined to increase the added value of agricultural products[3]. Besides, quality management measures such as standards for the supervision and management of agricultural product can be further established to improve the quality management mechanism, make the “pollution-free agricultural products, green food, organic agricultural products and geographical indications of agricultural products” meet the quality certification standards, so that the level of processing quality and safety of agricultural products can be boosted.

For instance, in Wuxiang county of Shanxi province, when building the standardization of agricultural products, the production scene and manufacturing base of Jinhuangyangfei(JHYF) millet, farmers chose Shangsi township with the best soil quality and the most suitable place for growth of grain as the standardized planting base of JHYF millet. Therefore, during the process of millet production, more natural and high-quality JHYF fertilizers should be used. Besides, organic fertilizers, such as pesticides should be scientifically restricted, especially herbicides should be banned in large quantities. Standardized ecological rotation cultivation should be conducted regularly, and farmers ought to equip a 24-hour monitoring system with them. After production, the standardization of millet planting line should be strictly implemented in order to ensure the intrinsic safety and quality of agricultural products. Through classifying the quality and standard of products, it will be possible to help all the agricultural products get geographical environment certification to improve the standardization of APU so that enhancing the quality of agricultural products.

3.3. Joint Cultivation of Rural E-commerce Talents

The cultivation of rural E-commerce talents[4] is indispensable for the development of agricultural products E-commerce. However, China is facing a shortage of rural E-commerce professionals, and talent cultivation is not a easy task. Therefore, in order to effectively solve this problem, multi-party collaboration is required, that is, schools, enterprises and government departments should work together. First of all, the cultivation of rural E-commerce professional talents should be started from local vocational colleges, and a close cooperation on talent training project can be established. By training talents through various ways, such as local cultivation or commissioned cultivation in other areas by vocational colleges, more rural E-commerce talents who fit well with the market demand of rural E-commerce in China can be cultivated, so as to fill the gap of E-commerce talents in rural poverty-stricken areas in China as much as possible.

Secondly, the treatment of rural E-commerce talents in China should be improved by a certain extent. Companies can take various measures to avoid brain drain, such as formulating a complete salary and bonus management system for employees, improve the company's personnel turnover, and promotion incentive system, and appropriately award bonuses to support and encourage employees according to their performance, so as to better mobilize employees' responsibility and enthusiasm for work. Then, we should ramp up efforts to promote and implement the training of professional skills. The government can play a vital and guiding role in this aspect, such as establishing a rural E-commerce student training center, regularly organizing E-commerce students, and encouraging them to actively participate in vocational skills training, creating more opportunities for them to apply theory to practice to enhance their practical ability, so that their professional skills can be exercised and improved. Only in this way can the professional skills they learned be better applied and served for the rural E-commerce market.
Finally, the training focus can be laid on young people, such as students of E-commerce major, because they have a strong desire for knowledge and understanding of novel things. As long as we intensify efforts in this regard, they can make great progress as the future successors in the E-commerce industry.

4. Conclusions

Through this study, it can be seen that currently, the APU in China is still in a difficult situation, which is mainly ascribed to the non-formalized, non-standardized and non-streamlined development of rural agricultural products E-commerce. Due to the small scale of development and insufficient experience, some well-known brands have not formed. Besides, the absence of rural E-commerce talents is an important reason for the slow development of rural E-commerce. Therefore, it is necessary to build well-known agricultural product brands and produce agricultural products with regional characteristics; secondly, we should improve the standardized production process of agricultural products, formulate unified standards and strictly implement them; finally, more efforts should be made in training rural E-commerce talents.

APU is essential and innovative because it reflects the inevitable result of the close integration between traditional agriculture and today's advanced Internet information technology to obtain economic benefits. Nowadays, APU should keep the pace with the rapid development of rural E-commerce. Only in this way can the rural E-commerce market usher in a prosperous future.

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