

Dynamic Mechanism and Strategy of Agricultural Products of E-commerce Development in Northwest Rural Regions

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Abstract: As a large agricultural country, the consumption concept of agricultural products purchased in farmers' markets and supermarkets is deeply rooted, and the production and marketing methods have many drawbacks. For example, the sales supply chain is too complex, farmers have no pricing power, income is always difficult to improve, and the quality is uneven. As an important means to promote the process of agricultural modernization, the development of agricultural E-commerce has far-reaching significance. The driving force for the development of agricultural E-commerce is the interaction mechanism of economic benefit, government support, social demand and technological progress. At present, we should start from increasing government guidance and assistance, strengthening market constraints, regulations and supervision, and cultivating farmers' or agriculture-related enterprises' awareness of the subject.

1. Introduction

Under the condition of traditional agriculture, agricultural producers lack big data and smooth channels for market information, and their understanding of production arrangement and price lags behind. They often decide the production arrangement of this year based on the market situation of the previous year and their own experience, which leads to unsalable products separated from the market, resulting in the phenomenon of low price of melon hurting agriculture.

Relying on modern information technology and Internet market, agricultural E-commerce has greatly improved the dilemma of imperfect information. The efficiency of the Internet, especially the Internet, can make relevant agricultural policies, market prices and other information released in a timely and effective manner. Its interactivity makes online trading of agricultural products a reality, and its openness gives agricultural E-commerce a broad market space. As long as you know the Internet, farmers or agricultural enterprises can arrange production and operation according to the real-time market conditions [1]. Agricultural production is more organized and closer to the goal of agricultural industrialization.

New rural construction is an important way to solve the three rural issues, and agricultural modernization is an important foundation to speed up the new rural construction. As an important means to promote the process of agricultural modernization, the development of agricultural E-commerce has far-reaching significance [2]. Agricultural E-commerce is a system. It is necessary to study the operation mechanism of the system and determine the application strategy according to the dynamic factors that promote its development.

2. Interpretation of Agricultural E-commerce

It has been forty or fifty years since the rise of agricultural E-commerce. From the initial use of telephone to connect products with all parties involved in the transaction to today's Internet integration, the online transaction of fresh and perishable products has been realized, and E-commerce has really developed. Farmigo is an online agricultural product sales platform in the United States, which is composed of three words: farm, I and go. It connects the owners of small-

scale individual agriculture with the consumers in the market. Farmers can release their own agricultural products at any time. In 48 hours, fresh food will be delivered to the designated place of consumers, and the price is 20-30% cheaper than that of supermarkets. Farmigo is known as the innovative online agricultural product sales platform [3].

The definition of agricultural E-commerce is as follows: Taking the network as the medium, using modern information technology to collect and timely update and release information about the production, supply and marketing of agricultural products, relying on the logistics system, to complete the transformation of agricultural products from branches to branches. The whole process from field, Tangbian to tongue involves different subjects and participants, including the government, individual businesses involved in agriculture, logistics distribution centers and regulatory agencies.

Throughout the world's mature E-commerce system, the agricultural products transactions that benefit farmers are inseparable from the help of the government. Through the formulation of policies such as price protection and financial support, the market risk can be reduced to a certain extent. Of course, the formation of farmers' E-commerce awareness is essential. With the realization of the nationwide Internet access, the E-commerce system can be improved and developed; Agricultural E-commerce system not only ensures the order of agricultural products market and the income of farmers, but also provides the basis for the decision-making of agricultural products production and operation, and is becoming the main platform of agricultural products transaction.

3. Dynamic Mechanisms

The power mechanism of agricultural E-commerce development refers to the power to promote the operation of the system and the mode of action of the power. The power mainly comes from the interrelationship and interaction between related factors. At present, the factors that affect the power mechanism are as follows:

3.1 Economic Benefits

The main body of agricultural E-commerce system mainly includes agricultural industry cooperation organizations, farmers, rural economic people, or E-commerce service providers. In order to maximize profits, each main body will leave those low-cost, high-income and promising projects after selection and elimination as the economic basis for agricultural E-commerce.

However, the economic benefits of agricultural E-commerce are various. From the perspective of benefit effectiveness, the overall benefits are effective in the long term, but for farmers or brokers, they may only be profitable in the short term. The main marketing channels of agricultural products are door-to-door purchase by non-local merchants, with narrow sales channels, poor circulation of production, supply and marketing channels, and inadequate utilization of agricultural E-commerce platform. In the process of weighing and choosing the project, the two factors that the economic interests are opposite and can-not get benefits at the same time are bound to produce conflicts of interest, and this process of interest struggle and coordination will produce the power of system development [4]. At this time, the main body will hope that the government will encourage or adjust through policies to obtain vital interests, which is the fundamental driving force for the development of the system.

3.2 Government Support

In the development of agricultural E-commerce, the support and promotion of the government is obvious. In terms of policy, increasing investment in information technology, creating a social atmosphere for the development of E-commerce, promoting the construction of E-commerce platform, training and selecting relevant talents have irreplaceable role and status of other members of society.

As the escort of the development of agricultural E-commerce, the government's active support has boundary. It can't interfere with the choice of agricultural enterprises or farmers excessively. It should make clear its main position.

The orientation and grasp of the government in the development of agricultural and rural E-commerce need to be clear, quoting the opinion of Guo Dongxiao, the county chief of Chun'an County, Zhejiang Province: E-commerce is a tool, the government should learn to use the tool reasonably, and the development of regional E-commerce should avoid the anxiety of functional departments. The development of regional E-commerce is not achieved overnight. We need to give the most reasonable policy guidance and resource docking at the right time and the right time node.

3.3 Social Needs

With the popularization of the concept of environmental protection and the rise of green food, whether it is a single social member or a large purchase of social organizations, agricultural products are required to be green, organic and pollution-free, which not only requires the production process to meet the environmental protection standards, but also to achieve high standards in the process of transaction and distribution, especially in China. With the rapid development of fresh E-commerce in 2012, the society has higher and higher requirements on the trading environment, which gives the government the power to strictly supervise the whole process from production to trading, so as to promote the improvement and development of agricultural E-commerce [5].

Although social individual or government demand can promote the development of E-commerce system, it also requires a higher level of economic development, and its national quality is better. This demand pulling mechanism is meaningful, because different economic conditions and population quality will have different business needs, showing the pulling effect of E-commerce will also have obvious differences. At present, the first-line fresh E-commerce enterprises, such as life.com, shunfeng.com, Tuotuo industrial society and putian.com, mainly provide services to users in Beijing, Shanghai and Tianjin, because other regions, especially in the third tier cities, are not mature in user awareness, consumption habits, cold chain distribution and other market elements.

3.4 Technological Progress

The theory that science and technology is the first productive force has been proved by numerous economic cases for a long time. To realize the construction of new countryside, increase the added value of agricultural output value and change the modern circulation mode of agricultural products, we cannot do without the introduction of advanced technology. Through the improvement and integration of the original technology, or the application of some new technology, to change the mode of production and circulation of agricultural products, agricultural production and management can really reduce the waste of resources, increase production and achieve income, increase efficiency and achieve value-added at the same time. In recent years, the development and application of the technology of agricultural products origin tracing system has accelerated the pace of agricultural products E-commerce.

4. Development Strategy

Agricultural E-commerce mechanism will not automatically operate and promote the development of the system. According to the relationship of mutual promotion and influence among several mechanisms, some strategies can be adopted to cultivate and optimize various mechanisms. Through the analysis of the relationship between various mechanisms, we can see that when the government supports and promotes or the social demand expands, the agricultural E-commerce system will be improved and improved and the market risk will be reduced. At this time, farmers or agricultural enterprises can obtain obvious economic benefits.

Therefore, the development strategy of agricultural E-commerce can be started from four aspects: increasing government guidance and assistance, strengthening market restriction, regulation and supervision, cultivating and enhancing the main body consciousness of farmers or agricultural enterprises, and playing the role of E-commerce platform. In the process of implementing the strategy, we should pay attention to not only the results, but also the overall balance. Give consideration to both sides. The specific contents of the strategy are as follows:

4.1 Government Promotion is the main force

4.1.1 The Government Leading Agricultural E-commerce Platform System

From the central level, the No. 1 central document of January 2014 put forward for the first time that strengthening the construction of E-commerce platform for agricultural products has laid the policy foundation for developing rural electric business. It shows that the government continues to put rural E-commerce in the strategic priority position, and put rural E-commerce in the core position of rural informatization. From the local government level, we should improve the government's ability to provide public services to rural E-commerce, and focus on solving the outstanding problems in the development, such as land problems, capital problems, talent problems, etc., so as to help farmers to improve their competitiveness; We will encourage the bottom-up rural E-commerce model represented by Taobao village, encourage the promotion of advanced models, and guide farmers' online businesses to follow the development path of intensive, brand-name and ecological, so as to avoid vicious competition. Adhere to the dominant position of farmers in rural E-commerce, the government adopts the strategy of taking advantage of the situation and governing with action, not intervening but not strong, serving well and supporting well;

In the development of agricultural E-commerce, the legislation should be improved to make the punishment of the illegal and criminal acts have legal basis; the illegal criminals on the network should be investigated and hunted more vigorously, and the law enforcement department should be advised to punish the illegal merchants who violate the trading rules and destroy the trading security, eliminate the trading market and ensure the trading security of the E-commerce system in accordance with the laws and regulations; It can also coordinate with relevant parties to eliminate trade barriers that do not violate laws and regulations in the E-commerce market, and ensure the continuity of transactions; or reward and praise honest businesses to ensure the healthy and orderly development of the E-commerce market.

4.1.2 Realize the Significance of E-commerce to Agricultural Development

At the same time, we should realize that this modern circulation mode of agricultural products will become the mainstream in the future, and pay enough attention to it. As a large agricultural country, China once thought that agricultural products should not be sold on the E-commerce platform, because the consumption concept of agricultural products purchased in the agricultural trade market and supermarket is deeply rooted, and agricultural products belong to the goods with strong experience, which requires a high level of logistics and distribution, so the E-commerce involved in agriculture is not good. But in recent years, agricultural E-commerce has been widely valued and developed rapidly [6]. The development of agricultural E-commerce will speed up the circulation of agricultural products, upgrade the mode of agricultural production, expand the business vision of agricultural production subjects, narrow the digital gap between urban and rural areas, and improve many disadvantages of the traditional mode of agricultural products production and marketing, such as the sales supply chain is too complex, which is not good for both producers and consumers; farmers have no pricing power, and their income is always difficult to improve; In the traditional market, it is not easy for consumers to buy real agricultural products. E-commerce system relies on a huge information network, and convenient network system is the basis for information release and interaction between participants. Therefore, the government should increase financial support, build or maintain rural network infrastructure, especially villages and leading enterprises that play a key role in the whole chain, so as to ensure the timely and effective transmission of agricultural information. We will improve infrastructure in rural areas, such as transportation, logistics, telecommunications and electricity.

4.1.3 Strengthen the Maintenance of Agricultural Information Database

Agricultural information database contains important information related to agricultural production, market, policies and regulations, which is related to a series of links such as agricultural arrangements, market prices and the smooth completion of transactions, so the updating and maintenance of agricultural information database should be the basic work of the government. To

this end, the government can establish a database system covering the whole range from provinces and cities to villages. The data in the database is audited, released, updated and maintained by special personnel to ensure that members get the latest and most authentic agricultural information.

4.1.4 Establishment of quality inspection and evaluation system for agricultural products

In the process of E-commerce system transaction, the seller will be required to provide detailed and specific information such as product standards, specifications and packaging, but generally speaking, it is difficult for agricultural products to be as uniform as industrial products in terms of appearance and quality, which is convenient for classification. In addition, China has not yet issued a unified agricultural product standard, which requires the government to establish the quality inspection and evaluation of agricultural products. In order to ensure the E-commerce system to play a real role, a product specification judgment standard suitable for market requirements is developed.

4.1.5 Support the Construction of Agricultural Products Distribution System

Although the high price of agricultural products belongs to bulk grain, the distribution of fresh vegetables, melons and fruits is a regular transaction, which requires the government to actively support the construction of a strong logistics infrastructure, especially cold chain logistics infrastructure, to ensure the smooth development of agricultural products E-commerce. It is a more economical and quick way to cultivate the existing logistics enterprises. It can not only make use of the original distribution routes and customer resources of enterprises, but also reduce the construction cost. It can see the results in a short time and get a standardized logistics distribution system; If we start from scratch and establish a new agricultural logistics distribution system, we can ensure the specialization of the system and the rapidity of transportation, but the investment is large and the time is long. The local government can choose intelligent support mode according to its own reality to ensure that the price of agricultural products will not be delayed due to distribution problems.

4.2 Farmers' participation

In agricultural E-commerce, farmers or agricultural enterprises are the main body. In the face of new product trading mode, it is normal to have doubts and exclusions. Before promotion, we can choose those areas with better conditions for pilot. After receiving the effect, we can gradually promote it. We can't be impatient. For example, Alibaba's one thousand counties and ten thousand villages plan in 2014 and JD's one thousand counties and one prairie fire plan are good practices.

In the remote or poor economic base villages, we can organize training for farmers who have zero knowledge of the network, help farmers understand the network, understand the operation process of the transaction, and how to protect their own information security, and promote the expansion of the application of E-commerce system. For example, the famous Taobao village-Dongfeng Village, Shaji Town, Suining County, Xuzhou, Jiangsu Province, is the first place to sell furniture on the Internet after three returning youth have been trained, and they taste the sweetness, and then develop from a resource poor village to the current Internet Furniture Customization expert gathering area [8].

Carry out the whole network marketing from the perspective of Cultivating Farmers' habits and awareness. As of December 2014, the rural population accounted for 27.5% of China's netizens, with a user scale of 178 million. The awareness of farmers' active participation in E-commerce is in the best period in history. Therefore, relevant organizations should establish the whole network marketing awareness, build practical agricultural related websites from the perspective of improving farmers' experience, and carry out high viscosity social marketing activities, such as Agricultural related public Wechat, Microblog, Blog, Feixin, etc., not only release information related to agricultural production and marketing, but also answer agricultural consultation and provide some knowledge guidance, so that farmers are willing to use Internet tools to independently accept and learn modern trading methods; Encourage related enterprises to establish their own portal sites, reduce government investment, facilitate direct communication between buyers and sellers, seize business opportunities, make timely decisions, and reduce transaction costs [8].

In the process of standardization of agricultural products, we must encourage farmers to speak actively and give more suggestions, and explain the final standards to farmers clearly, so that farmers know the method of dividing their own products, which can greatly facilitate transactions.

4.3 E-commerce Platform Indispensable

E-commerce platform, also known as the third-party E-commerce enterprise, generally refers to the provider and demander independent of products or services, through the network service platform, according to the specific transaction and service specifications, to provide services for the buyer and the seller. The service content can include but not limited to supply and demand information release and search, transaction establishment, payment, logistics. In China, such enterprises play an extremely important role in the development of E-commerce. As the largest third-party E-commerce enterprise in China, Alibaba Group has always paid attention to supporting agricultural E-commerce, and in 2014, it promoted agricultural E-commerce to one of the three key development directions of the group. From 2010 to now, the average annual growth rate of sales of agricultural products on Alibaba platform is 112.15%. The sale of agricultural products has grown from about 3.7 billion Yuan in 2010 to more than 80 billion Yuan by the end of 2014. In 2013, the growth rate of Taobao fresh products (including aquatic products, meat and fruit) reached 194.58%, ranking first in all categories. The third-party E-commerce platform represented by taobao.com provides a low-cost way for farmers to start businesses online. As of November 30, 2013, the number of online stores registered in rural areas in Taobao's normal online business was 2.039 million, including 1.05 million registered in villages and towns, an increase of 76.3% over the end of 2012 [9].

4.4 Supporting Factor of E-commerce Service

E-commerce service provider refers to the organization that provides various business services for individuals and enterprises engaged in E-commerce. In the development of agricultural E-commerce, because of the congenital physical region, education level, production mode and other reasons, agricultural individuals and enterprises are limited in their own E-commerce gene and thinking mode, and they need agricultural E-commerce service providers of all types and levels. They are an important bridge between the third-party E-commerce platform and farmers, greatly promoting the speed of rural E-commerce. The business mainly focuses on the whole chain of E-commerce, such as release, vision, promotion, operation, data analysis, etc., and a new industry emerges as the times require [10]. The emergence of logistics express delivery, marketing promotion, training, agent operation and other service providers not only effectively improves the working efficiency and operation ability of farmers' E-commerce, but also makes the industrial chain of the whole agricultural E-commerce more complete and enhances the collective competitiveness of farmers' E-commerce.

4.5 Rural E-commerce Public Service imminent

In the development of agricultural E-commerce, the demands of the four main parts of government, platform, farmers and service providers are interwoven, which requires a strong platform guarantee, from policy, technology and market. In view of the different needs and roles of the government, platform, farmers' E-commerce, farmers or agricultural enterprises, we can identify and restrict the key factors of the development of regional E-commerce. Therefore, we can consider the establishment of a regional E-commerce public service center, which can well rationalize the relationship and coordinate resources, according to the actual needs of agricultural E-commerce in different stages. Carrying resources and promoting rational construction in accordance with local conditions. The public service center system should have four services: training, incubation, platform construction and operation, solve the bottleneck in the development of regional E-commerce, and effectively supplement the lack of ecological chain in the development of regional E-commerce. Especially in the platform construction, the construction of characteristic Museum and industrial belt is an effective presentation of regional E-commerce development, and a reasonable closed-loop of regional E-commerce development.

Conclusions

The construction of new countryside requires us to change the traditional farming methods, the international market competition requires us to change the relative advantage of agricultural products into absolute advantage, and the domestic cultivated land area is being squeezed by the modernization and urbanization construction; With the deepening of green consumption consciousness, quality requirements are put forward for the production and circulation of agricultural products. In today's era of profound changes in agriculture from production to circulation, the improvement of agricultural E-commerce system is timely and inevitable. Under the background of modern information technology changing with each passing day, I believe that with the support of government policy, the inclination of funds and the guarantee of laws and regulations, farmers' awareness of using modern production and circulation mode will become stronger and stronger, plus The emerging E-commerce platform, E-commerce service providers and agricultural E-commerce talents, E-commerce system will be more and more perfect, and play an increasingly important role in the process of agricultural modernization.

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