

# *Analysis of Electronic Commerce Model of Organic Agricultural Products*

Xiaocui Wang

School of Logistics

Wuhan Technology and Business University

Wuhan, P.R. China

**Abstract**—In the process of great implicit changes in the field of agriculture in China, agricultural planting structure has changed from traditional grain planting to the combination of grain, vegetables and fruits and aquaculture. At the same time, e-commerce platforms for organic agricultural products come out thick and fast. With big data and transparent trading methods make up for the problems of poor information and inefficient circulation in the traditional circulation process. However, there is still a certain gap between the e-commerce model of organic agricultural products in China and developed countries and regions. Therefore, the author analyzed the E-commerce modes of organic agricultural products in the United States, Japan and the Europe, and then discussed the differences of the E-commerce modes of organic agricultural products at home and abroad. Finally, the author put forward effective development strategies in order to promote the sustainable development of organic agricultural products in China.

**Keywords**— *organic agricultural products; e-commerce model; sustainable development*

## I INTRODUCTION

The production of organic agricultural products promotes the return of agriculture to primitive ecology and green environment protection [1]. This concept of sustainable agriculture from Europe and America has led to the emergence of organic food market in China in the past 10 years. From a broader perspective accepted by the Chinese people, food quality and safety, this cause has also gained tremendous momentum and support.

At present, the marketing channels of organic agricultural products in China are still relatively narrow, and the information of Agricultural market information is not smooth, which makes the distribution of organic agricultural products more in the traditional stage of self-supporting logistics. For organic agricultural production enterprises, the most headache is undoubtedly the problem of e-commerce sales channels. A considerable number of enterprises spend astonishing amounts in the sales process: high distribution costs, time costs and inevitable product wastage, which are training the patience of enterprises, but also stimulating the improvement of these enterprises in the e-commerce sales model. Comparatively speaking, the market of organic agricultural products in

developed countries and regions such as the United States, Japan and Europe is more developed and the marketing mode is more advanced. Therefore, it is of great practical significance to learn from the leading sales models of foreign organic agricultural products and promote the innovation of the organic agricultural products model in China, so as to enhance the international competitiveness of China's agricultural market and realize the modernization of agricultural products logistics [2].

## II ELECTRONIC COMMERCE MODEL OF ORGANIC AGRICULTURAL PRODUCTS ABROAD

### A. Current Development of Organic Agricultural Products Abroad

Foreign fresh e-commerce has developed to a certain extent, especially in developed countries [3]. According to different national conditions, countries also exhibit different business models and business forms [4]. There are four kinds of operation modes for foreign fresh e-commerce: B2C mode, O2O mode and pure platform mode [5].

#### ● B2C Model

FreshDireect is an online food supplier providing fresh farm products to New York and surrounding areas. It has a warehouse of about 30,000 square meters, advanced production and cold chain distribution systems, and 12 different temperature preservation zones to meet the fresh-keeping requirements of different fresh farm products. Consumers can not only access FreshDireect website conveniently, but also get all kinds of online help. Generally, they can receive products within 2 hours after ordering, and the cost of distribution is reasonable. In addition, FreshDireect uses e-mail and Web ordering data to count the number of consumers and analyze their buying preferences in order to adjust the types of online products and promotional activities.

#### ● O2O pressure model

he typical representative of this model is Cybirds company, which integrates farmer and consumer resources on a trading platform. Through the company's website, consumers can purchase a variety of fresh agricultural products from 60 farmer households. The website provides not only the choice

and picture display of fresh agricultural products, but also the introduction of production bases, planting methods and nutrition schemes. In addition, the company holds a monthly fair in Shibuya, Tokyo, to provide face-to-face shopping conditions so that consumers can better understand the growth environment and production process of fresh agricultural products. This model reduces the intermediate circulation procedures, reduces costs and ensures the quality and safety of fresh agricultural products.

- Platform-only mode

Farmigo, an American fresh-food ecommerce, has established a group-buying platform between farmers and consumers. It does not sell goods, nor does it have a logistics and warehousing system [6]. The e-commerce links local farms with consumers who are geographically close to each other, and puts forward the concept of "food community". Farmigo provides a dedicated shopping website for each community, and each community leader needs to develop at least 20 local people to join the "food community". The more the number of people, the greater the discount, can be cheaper than supermarkets by more than 20%. The specific process for consumers to order products in Farmigo is as follows: each member of the "food community" places an order on their own community-specific website. Farmigo platform collects the orders and sends them to the farm. The farm distributes them to the corresponding community according to the orders of the platform, once a week, and finally gets the agricultural products by the member consumers. This distribution mode initiated by this platform not only provides large orders to farms, reduces the cost of farm distribution and management, but also provides consumers with high cost-effective agricultural products.

#### *B. Current Situation of Domestic Organic Agricultural Products E-Commerce Industry*

In 2012, Jingdong, Shunfeng Optimized Selection and the original life network opened the organic agricultural products shopping channel [7]. With the development of e-commerce, fresh agricultural products e-commerce has been popularized on a large scale. In 2013, Suning E-commerce and No. 1 Store began to practice fresh agricultural products e-commerce. A series of large enterprises entered the fresh agricultural products e-commerce circle. The development of social media and mobile Internet also made fresh agricultural products e-commerce have more development modes, which symbolized the entry of fresh electronic commerce industry. It has reached a new turning point. Since 2013, enterprises such as Shunfeng Optimized Selection, Yihao Fresh, Originally Living, Tuotuo Industrial Society and so on have their own advantages in industry resources. B2C, C2C, O2O and other modes have not been fully deduced, and from small to beautiful to large and complete, involving a wide variety of fresh products. Not only that, consumers' enthusiasm for fresh e-commerce is also growing.

### III COMPARATIVE ANALYSIS OF E-COMMERCE MARKETING MODES OF ORGANIC AGRICULTURAL PRODUCTS BETWEEN CHINA AND FOREIGN COUNTRIES

#### *A. Comparison of the Development Degree of Organic Agricultural Products Marketing*

Developed countries have gradually diversified their sales patterns of organic agricultural products, which has led to a higher level of development of organic agricultural products marketing market. According to data released by the German Eco-Agriculture Foundation, in 2015, the area of global organic farms exceeded 31 million hm<sup>2</sup>, of which Oceania accounted for 34.3%, Europe 21.7%, Latin America 21.6%, North America 6.6%, Asia 12.5% and Africa 3.3%. From the market share of organic agricultural products, the global demand for organic products is mainly concentrated in North America and Europe, which account for 96% of the global organic market. Among the economically developed countries, the total retail sales of organic agricultural products are highest in the United States, followed by Japan and Europe. However, the consumption market of organic agricultural products in China is not yet mature. "Agricultural supermarket docking", "E-commerce" and the opening of Direct stores have expanded the sales of organic agricultural products and opened up the market, but due to the high concentration of demand for organic agricultural products, the contradiction between production and consumption has intensified. As well as the organic food industry in China is almost entirely dependent on exports, fruits, vegetables, grains, seeds, vanilla and other major crops are mostly used for export, unable to effectively occupy the market share. At the same time, because of the small output of organic agricultural products and the long cultivation time, the price of organic agricultural products is about three times higher than that of ordinary agricultural products. The problem of marketing mode caused by higher sales price has greatly hindered the development of organic agricultural products industry in China, resulting in the development of organic agricultural products marketing market in China is far lower than that in developed countries and regions such as the United States and Europe.

#### *B. Comparisons of Acceptance of E-commerce Model for Organic Agricultural Products*

The recognition of consumers makes the marketing mode of organic agricultural products show a distinct life cycle. The existing marketing mode mainly includes supermarket mode, natural food store, direct marketing, exposition and so on. "Whole Food Supermarket Company" is a well-known organic brand in the United States. The brand penetrates the market in the form of natural food stores in the early stage. When organic agricultural products are recognized by customers and consumers, they are further promoted and sold through the adoption of professional supermarket model, e-commerce model and new model of O2O. The hierarchical application of marketing model makes it a well-known American store with 265 branches. Retail brand of organic agricultural products. However, China is in the primary stage of the development of marketing mode, and its understanding of organic products, technology popularization and production

conditions are not mature. At the same time, the lack of organic product standards also hinders the development of organic agricultural product marketing model. Due to the lack of clear standards and industry spontaneous codes of conduct in China, some non-organic agricultural products on the market often appear "no chemicals" or "low pesticides" attribute labels, which mislead consumers' purchasing behavior, make consumers unable to identify legitimate organic and non-organic agricultural products, and reduce consumer recognition. With the increasing importance of food safety, although organic agricultural products are gradually recognized, the market share of organic agricultural products in China is only about 0.3%, which still lags far behind that of developed countries.

### *C. Comparison of Marketing Channels of Organic Agricultural Products*

The internal relationship of organic agricultural products sales channels in China is low in organization and disorderly in circulation, which makes it impossible to form a stable organic agricultural products sales channel. At present, most of the producers of organic agricultural products in China are small-scale and low-level household business models. This mode of operation, due to insufficient funds, poor information and other factors, leads to low participation of farmers in the market, less products entering the organic market, weak ability to resist market risks, and unable to achieve integration of supply and marketing of agricultural products. Moreover, the low technical content of organic agricultural products in marketing channel operation, the lagging development level of cold chain logistics, and the increasing difficulty of channel management lead to the increase of channel cost and low efficiency [8]. Compared with China, most foreign countries have advanced organic food marketing channels. For example, Japan mostly adopts the sales system of "multi-level marketing channel system of organic agricultural products", "leading enterprises driving farmers" and "combination of production and marketing of farmers". Farmers can effectively participate in the pricing system of agricultural products market, which is conducive to improving their enthusiasm for producing organic agricultural products. The main participants and circulation channels of agricultural products in Germany have diversified attributes, and Germany has many established. Several specialized organic food supply stores provide organic products to consumers. Owing to the different marketing channels at home and abroad, organic food monopoly stores in Japan account for 35% of the domestic food market. Although China is the fourth largest food consumer in the world, organic agricultural products account for only about 13% of China's food market.

## **IV ENLIGHTENMENT OF FOREIGN E-COMMERCE MARKETING MODEL ON ORGANIC AGRICULTURAL PRODUCTS IN CHINA**

### *A. Establishing E-commerce Platform for Organic Agricultural Products and Enhancing the Speciality of Organic Agricultural Products Electronic Transaction*

We should vigorously promote the popularization of

Internet in rural areas, improve the utilization rate of rural Internet terminal access, optimize the basic platform of organic agricultural products e-commerce, promote policies such as network cost subsidies, establish and optimize network infrastructure, and reduce the gap in the infrastructure of organic agricultural products e-commerce in various regions of the country. At the same time, we should enhance the capacity of information service stations in towns and villages, and support agricultural cooperatives, large agricultural households and agricultural enterprises to develop e-commerce for organic agricultural products. In addition, the third-party e-commerce service providers of organic agricultural products should improve the level of online transactions, innovate the third-party e-commerce platform of organic agricultural products, and constantly promote the scientific development of e-commerce services of organic agricultural products. In order to promote the electronic circulation and trading activities of organic agricultural products, the diversified e-service websites should be developed hierarchically, and the professional e-commerce service providers of agricultural products should be guided to form cooperative alliances, and the online retail service platform of organic agricultural products should be constructed. Promote all trading entities to develop new electronic commerce payment platform for organic agricultural products, and enhance the specialty of commodity trading.

### *B. Foster the main body of production and marketing of new organic agricultural products and promote the socialized service of production and marketing docking*

Enhance the specialty of the main body of organic agricultural products production and management, and promote the formation of its new management concept. We should build a standardized cooperation system for organic agricultural products, promote the brand building of organic agricultural products, optimize the classification and quality certification of organic agricultural products, and comprehensively use financial support to achieve the docking of production and marketing of organic agricultural products [9]. At the same time, we will promote the standardization, gradation and socialization of organic agricultural products, promote the coordinated development of organic agricultural products production and market demand, and provide operational risk assessment and knowledge consultation of agricultural products circulation for organic agricultural products. In addition, an integrated service platform for the docking of production and marketing of organic agricultural products should be established to enhance mutual communication between producers and sellers, and to continuously promote diversified activities such as organic agricultural products cultural festivals, exhibitions and sales fairs.

### *C. Expanding the International Market Space of Organic Agricultural Products and Guiding Organic Agricultural Products Enterprises to Implement the "Going Out" Strategy*

The main exporters of organic agricultural products should be encouraged to develop markets in Europe, America,

Australia and Africa in depth and form a sound international market system for organic agricultural products. Organic agricultural products enterprises should be encouraged to visit overseas and participate in marketing activities such as overseas organic agricultural products promotion fairs, expositions and trade fairs. At the same time, we will support export enterprises of organic agricultural products to participate in new agricultural products expositions and new technology sharing activities. Improve the docking rate between organic agricultural producers and foreign purchasers, and organize large-scale organic agricultural products trading activities at home and abroad. In addition, we should support exporters of organic agricultural products to implement the "going out" strategy, rationally avoid barriers to trade in organic agricultural products, scientifically utilize major international agricultural products economic and trade exchange network platforms, and encourage circulation enterprises of organic agricultural products to set up enterprises abroad.

## V CONCLUSION

E-commerce technology has been involved in more and more economies. It combines with the traditional agricultural production in the country. The important role played by domains should not be underestimated [10].

Diversity of fresh agricultural products sales mode in E-commerce has broken the gap between virtual and reality, solved the existing problems of organic fresh agricultural products market, realized the new breakthrough of fresh agricultural products sales mode, which is conducive to increasing consumers' trust in organic agricultural products, solved the problem of consumers' trust in organic agricultural products, and promoted consumers' trust in organic agricultural products. The understanding of products solves the problem that consumers have a low understanding of organic agricultural products; it is conducive to coordinating the production and sale of organic agricultural products and solving the problem of low organized sales of organic agricultural products; it is conducive to improving the grasp

and positioning of organic agricultural products on the target market, solving the problem of enterprises' grasp of the target market; and it is conducive to the direct sale of organic fresh agricultural products [11]. The problem of unreasonable structure of organic products was solved. Enhance the market penetration and share of organic fresh agricultural products in an all-round way.

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