



Research Article

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Study on trade patterns of E-business-based agricultural products

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ABSTRACT

In recent years, China's agricultural development is relatively slow; the circulation of agricultural products is poor, inefficient, high-cost and big loss. Meanwhile, with the development of e-business, agricultural products circulation has a new driving force for development. At present, we have made some achievement in the development of online trading for the agricultural products in China. Among these patterns of transaction, the third party online trading provides the enterprises and users with a comprehensive public platform which is according with the characteristics of China's agricultural products and trade and China's current situation. With the production of agricultural products becoming more and more specialized, commercialized and scaled-up, there will be more opportunities for the development for transaction pattern of B2C and B2B with the development of special service of the trade of agricultural products.

Keywords: Agricultural products; E-business; style; Trade pattern

INTRODUCTION

The potential of the e-business market is endless. The number of Internet customers in china has reached 350 million RMB by the end of June in 2009 according to the latest investigation report from the Data Center of China Internet (DCCI). On the other hand, the volume of e-business trade grows fast. The volume of Chinese e-business trade in 2009 is about 3.6 trillion RMB, and it will attain 4 trillion RMB in 2010, the average growth rate is above 11%. According to IDC report, the volume of B2B is about 2.5 trillion in 2009, and it will be increased to 3.2 trillion in 2010. About B2C, the number is about 11 billion in 2009, and will be increased to 16.9 billion in 2010. Due to intensive labor force in agriculture, the development of e-business of agricultural industry is more difficult than other industries. Although the agricultural circulating network has developed at certain level in our country, and some regions such as southeast area has already started to construct the e-business-based agricultural products system, there is no systematic planning because of lacking corresponding theory. A lot of research works have been done about seasonal products, but there is still no effective pattern for agricultural products trade[1]. For the information-based agriculture, it is very important to improve the trade pattern of agricultural products under the e-business environment[2]. That is why we will study the e-business-based agricultural products trade patterns in this paper.

EXPERIMENTAL SECTION

(i) Analyzing the Current Trade Models of Agricultural Product

A. Model of B2C

Next, three cases will be discussed about the model of B2C.

The first one is about Food Butler. It is the largest platform for high-quality agricultural products ordering. It provides Group-purchase services for corporate since 2008, and launched personal online subscription service in July 2009. As a rich agricultural trading platform, food butler has signed a strategic cooperation agreement with hundreds of Shanghai suburb famous agricultural cooperatives and the leading agricultural enterprises of the country and

provinces, so thousands of high-quality agricultural products and local products can be ordering in network, and home delivery easily.

Among the many online shopping platforms for agricultural products, Food Butler is the most successful. There are three advantages for Food Butler: firstly, guaranteed product quality, make customers satisfied. Secondly, in addition to simple application of online sales system, Food Butler also has efficient systems for agricultural products delivering. Thirdly, there is a team closed to the livelihood provides support for Food Butler.

The trade pattern of Food Butler is depicted in Figure 1



Figure 1 Trade Pattern of E-Business of Food Butler

The second one is about "womai.com" which is another website for food ordering launched formally in August 2009. As a B2C shopping website, and a subsidiary of China National Cereals, Oils and Foodstuffs Corp (COFCO), "womai.com" sales many kinds of goods, for example: Snack food, grain and oil, reconstituted products, biscuits cakes, infant foods, dairy products, fruit juice, wine, tea, health food, spices, instant food, dry goods and breakfast, etc, and 200 to 300 kinds of new products are added every month. The advantage for "womai.com" is the combination of e-business and modern consumption patterns, as well as the innovative integration to the traditional food supply chain. The trade pattern of "womai.com" is similar with Food Butler.

These two websites are more successful than others as a platform of e-business of agricultural product.

Weike Li, Deputy Director of the Ministry of Agriculture Information Center said, e-business will bring about profound changes, promote the business model innovation. It can reduce intermediate course, reduce costs, improve efficiency, eliminate information asymmetry of production and marketing, build a large market and circulation for agricultural products.

The last one is about Good Helper which were famous for just one moment, but now there is no sigh of them. The failure of online food market is not because of cold business; on the contrary, profits and demands were all satisfied. Orders were increased day by day, but the online food market has never been profitable. The problem was that the delivery capacity is not enough.

The trade pattern of Good Helper is depicted in Figure 2.

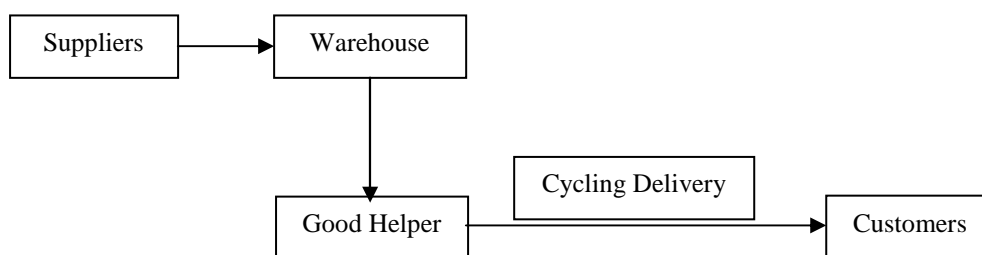


Figure 2 Trade Pattern of E-Business of Good Helper

B. Model of B2B

One successful case of B2B is "jg.ap88.com" which was invested by the Information Center of the Ministry of Agriculture, Shenzhen Agricultural Products Co.,Ltd, etc. This website is the only professional authority to investigate agricultural markets and release external information in Shenzhen.

The website is the largest online market of B2B for agricultural products, and now it has nearly 8,000 member companies of all kinds: agriculture production, process, distribution, consumption and agricultural research,

administration, etc. There are four advantages of "jg.ap88.com" to be successful: firstly, open, just and fair trading environment to make the purchase process more regularly; secondly, the column named "Shenzhen Price Window" publishes price information of wholesale and retail merchandise timely every day; thirdly, because of the cooperation with domestic large-scale highway, maritime, rail and other transportation, all members can talk with their transport company online to ensure the operation of the logistics run normally; fourthly, in the final e-business link for payment, the website provides a stable interface with Agricultural Bank of China, Industry and Commerce Bank of China, and other banks. So trade members can pay for their clients online. The trade pattern of "jg.ap88.com" is depicted in Figure 3.

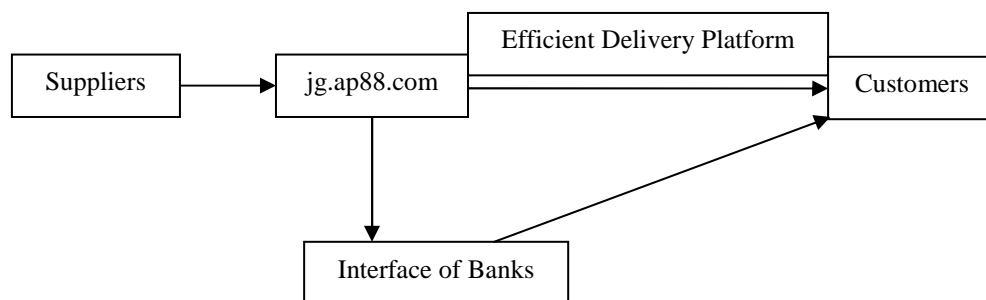


Figure 3 Trade Pattern of E-Business of "jp.ap88.com"

(ii) Analyzing the Characteristics of Agricultural Products

The characteristics, such as localization, seasonal cycle, scattering etc, are very outstanding, meanwhile, the agricultural products are people's everyday necessities, and the consumption elasticity is low.

A. The dispersion characteristic of produce distribution link

The producing area of agricultural products is very wide. The production unit, such as farmers, does not understand the market information and lack of essential production planning, thus the production link becomes the most difficult to control in the whole agricultural industry chain.

B. The region characteristic of circulation distribution link

Agricultural products are widely produced in different regions, and people's demand is diversified, therefore circulate trade occurs in different areas. But because agricultural products are fresh and perishable, even if we take measures to keep fresh, they will still have some proportion loss, and this proportion will be strengthened with time and distance running up. With the circulate cost rising, the radius of the agricultural products circulate is restricted. On the link of the fresh products delivering, keeping cold and keeping fresh of the fresh products and the cycle of the process have restricted in supporting service radius of the center. This is obviously different from the normal temperature delivery.

C. The specified distribution facilities

Because the agricultural products are fresh and perishable, we must take some measures in circulating, so that agricultural products could be consumed with high quality. Some variety specific container and equipment will be needed in the course of agricultural products warehousing and transportation. The cost of agricultural products logistics distribution should be higher than the traditional industrial products, so extensive and specialized management will be needed.

D. Integrative characteristic of delivering and trade

In recent years, our country builds 3-level marketplaces for agricultural products circulation, namely the wholesale market of agricultural products in producing region, the wholesale market in selling region and the retail market of farm and produce. The 3-level wholesale markets take not only the function of the trade but also the functions of the delivery. It is showed that agricultural products logistics will be difficult to exist independently when it break away from the trade center.

RESULTS AND DISCUSSION

(i) Trade Pattern of E-Business of Agricultural Production

As we mentioned above, the key of solving agricultural products trade is to establish an e-business-based platform that logistics and information flow are considered and integrated. This platform has not only traditional wholesale functions, but also new internet-based functions such as electronic trade, logistics management, information share,

balance of supply and demand and production planning, etc. Aiming at this goal, we will establish an E-Business-based Trade Pattern for Agricultural Products (figure 4).

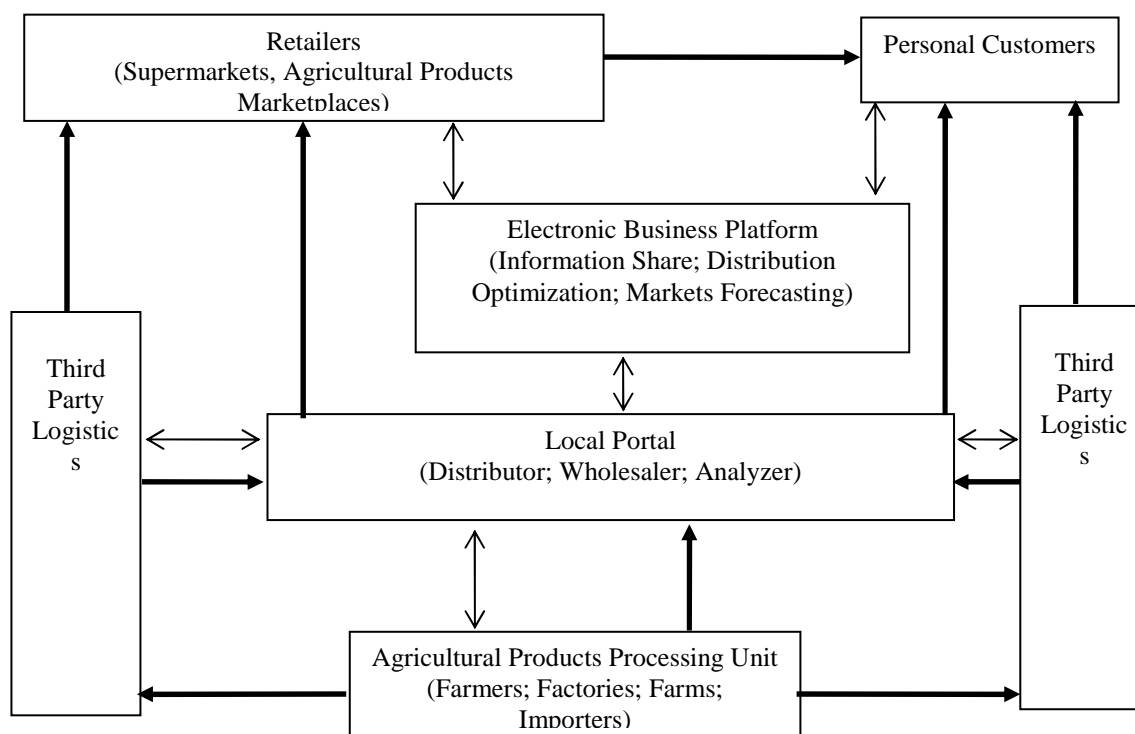


Figure 4 E-business-based Model for Agricultural Products

In figure 4, the wide arrows indicate logistics and narrow arrows show information flow. The model is composed of 3-level supply chains: agricultural products processing unit, distribution & wholesale center and retailers (personal customers). The third party logistics will be fully used to fulfill transportation of agricultural products among 3-level supply chain. The functions such as information share, online trade, and schedule optimizing and market prediction will be realized by setting a platform of e-business.

Specifically, agricultural products processing unit is made of farmers, processing factories, farms and importers, which are headstream of logistics and production information provider. As noted previously, agricultural products processing unit in our country has been dispersed, but if we set up the portal system of the regional distribution center, information can be exchanged conveniently on the portal among these processing units.

Distribution & wholesale center is physical center and information node. It combines the functions of traditional wholesale markets both in producing area and sale area. Different centers may have different functions according to the characteristics of the physical region of the center. Meanwhile, in this center, the two databases: agricultural products database and logistics database, and a portal website will be set up also. In the portal website, the third party logistics can be scheduled and agricultural markets trends will be analyzed.

The last level is the retailer a personal customers. The retailer is composed of farm produce marketplaces and supermarkets. It is the end of the model and faces to consumers directly. The retailers get agricultural products through the coordination of e-business platforms, distribution centers and the third party logistics. An important function of retailer in the model is the collection of the market information. On the basis of the statistical analysis of sales information, it fixes the general market trend and formulates the corresponding purchase plan, then offers information to the e-business trade platform.

The e-business platform is a virtual center of the model, which can be operated independently or based on a certain Distribution & wholesale center. The platform connects all Distribution & wholesale centers to realize information share in each link of agricultural products supply chain, schedule trans-region logistics, deploy limited transportation ability, such as rational utilization of cold chain circulates ability etc.

(ii) Implementation strategy of the model

In order to implement the model smoothly, firstly, we should do the unified planning of the agricultural products circulation facilities, and should prevent repeated construction. The government in policy and in certain regular range should guarantee the unified standards about implementation of the model. The unified planning will contribute to preventing from malignant competition and setting up normal environment of agricultural products circulation.

Secondly, the construction of the agricultural products market's information network should be strengthened. The Ministry of Agriculture has already done the work in this aspect, some agricultural products information networks are running and releasing information now. But the functions of these systems are limited and need further improvement. On the request of the model, the agricultural products e-business platform is relatively centralized and simple, so we should adopt the standard component, thus it can lower costs by a large and popularize rapidly. Another focus is how to set up database system, including the mechanism of data collecting, processing, storing and using.

Finally, the circulation should open to the world. The involvement of foreign partners can improve the transportation capacity and management level of the logistics industry in China so as to promote the implementation of the model.

CONCLUSION

With the development of information technologies, there is a strong tie between modern trade and e-business. It is important to develop an integrated e-business-based system for agricultural products trade. In this paper, the characteristics of agricultural products logistics distribution are analyzed, and the problems of e-business-based logistics of agricultural products are explored also. In order to solve the problems in the traditional agricultural products logistics, the e-business-based agricultural products trade model is put forward and the implementation tactics are discussed also. Further research will focus on the analysis of the issues involved to the model from macro and micro view.

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