

Research Article

Establishment and Analysis of the Sales Model of Fresh Agriculture Food Based on Business to Business E-commerce Platform

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Abstract: This study introduced the network sales model of agricultural products from the view of business to business e-commerce and analyzed the features, we found the sales model was featured by pattern diversity which was however of low level; the existing e-commerce operation scale of agricultural products is small and the anti-risk capacity is weak; its resource integration capacity is insufficient and thus it can't make full use of the advantages of e-commerce. Based on this, this study established sales chain of fresh agriculture products based on business to business e-commerce, i.e., to trade on the internet; the products are delivered to consumers by third-party according to the delivery of producing area and wholesale market of sales area and then collected by consumers themselves. Meanwhile, we should establish information center of price demand for online trading market and modern refrigeration base of wholesale market, accelerate the development of specialized rural cooperative or industrial company and assure the long-term operation of e-commerce of agricultural products circulation in the future.

Keywords: Business to business model, e-commerce model, fresh agricultural products

INTRODUCTION

E-commerce normally refers to the new-type commercial trading model including online shopping, online trading, e-payment, all kinds of commercial activities, trading activities and financial activities along with the relevant integrated service; it exists widely in commercial trading activity all around the world and enables buyers and sellers accomplishing trading activities without meeting each other through browser or server on open Internet (Deng and Long, 2010). For now, e-commerce has four main business models: Business to Business (B2B) model, i.e., business transaction from merchant to consumer; Business to Consumer (B2C) model; Business to Consumer (C2B) model which consumer, as the subject, demands transaction of merchant; Consumer to Consumer (C2C) model (Shi *et al.*, 2012), which refers to the commodity transaction among consumers. According to literature (Li, 2015), from the view of market structure, as the trading volume of e-commerce among enterprises is large, B2B market is still the main force of e-commerce in China. Considering the trading volume of clothing, processed food and books is much higher than that of fresh agriculture, the research on sales model of fresh agriculture products on e-commerce platform is significant to China's development and it has great potential.

By now, with the rapid development of e-commerce, by resorting to internet and network technique, fresh agriculture has great potential in integrating industry information, demand information

of consumers and governmental agricultural development information (Yang and Wang, 2012). Interrelated materials suggest, there are more than 40 professional websites of fresh agriculture products by now. Online sales model of fresh agriculture products is mainly performed in large and medium-sized cities (Yu, 2011). Besides, some major transportation and sale clients and specialized cooperatives in producing area also sell their agriculture products through the Internet. According to a network survey, in Qixia Shandong titled as the capital of apple in China, some 20% of 200 fruit companies applies network sales model to different degrees (Yan, 2012). However, the advantages of online sales haven't been completely displayed. This study analyzed the existing e-commerce model of agriculture products and found the operation scale is smaller than other industries and there are lots of problems in commodity circulation, so we proposed effective advices for the development of fresh agriculture industry from establishing new e-commerce sales model of fresh agriculture products.

MATERIALS AND METHODS

B2B E-commerce model: B2B e-commerce is normally found among enterprises. It has several characteristics as follows (Sun and Zhang, 2015):

- The trading objects are relatively fixed. As enterprises have to maintain long-term cooperative

relationship, they can't do business at will as consumers.

- The trading process is complicated but normative. As the scale involved in the transaction among enterprises is large, so there has to be more processes to guarantee the security.
- The trading target is extensive. The transaction of enterprises basically involves each aspects of living and the trading object is diverse.

The existing e-commerce model of fresh agriculture products circulation:

E-commerce sales model of fresh agriculture products developed by market spontaneously:

B2B model based on integrated platform: According to survey, some large integrated B2B platform, such as Alibaba and HC network etc., all have relevant fresh fruit market which sells seafood of various place, fruit and vegetables etc. B2B e-commerce model is still in wholesale segment, in Alibaba survey found on the site, the main suppliers of fresh agriculture include company, individual and agricultural specialized cooperatives, the agricultural products which has been deeply processed has relative high turnover in the platform, while the turnover of fresh vegetables is less, it suggests that, in B2B e-commerce platform, the quality can hardly be standardized and the logistics transportation of small amount of fresh agriculture products is difficult (Fan, 2011).

B2B model based on professional platform in the industry: B2B e-commerce platform consists of horizontal integrated platform and lengthways industrial platform. Horizontal integrated platform involves widely and consists of supply and demand information of all works of life, while lengthways platform sticks to the guidance idea of market segment, it integrates the resource of a industry to the utmost, its information is more professional and of depth. In agriculture industry there is also lots of B2B platform, including all kinds of products involved in agricultural industry chain such as fertilizer, seed, mechanical equipment, agricultural products and deeply processed products which is needed in agriculture production.

B2C model of fresh agriculture products: B2C model refers to the e-commerce model of enterprises to consumers. Enterprises publish product information on online platform and consumers acquire the information through Internet. But, as Internet is free from the limitation of time and space, the consumers are widely spread, which leads to the irregular consumption demand. So, the logistics activity from storage center to consumers of B2C e-commerce is usually performed by third-party logistics; only some big B2C shopping mall such as Dangdang, Jingdong Mall etc, run their own logistics. Due to all kinds of limitations of traditional logistics, B2C e-commerce hasn't come into being until recent years. For example, Beijing Yoocai, runs its own logistics and demands value card for the payment for

the individual consumer; Guangzhou D9JS, runs its own logistics and deliver vegetables for individual consumer, dining hall and restaurant; and the consumers order online and pay on delivery. Of course, there are some fresh agriculture products merchants doing online business on T-mall platform and with the help of website and third-party logistics. But, for now these companies mainly provide organic food which is of high price and high quality but fails to meet the demand of the public.

C2C model of fresh agriculture products: C2C e-commerce model from consumer to consumer is usually performed on C2C platform and also some of them are performed in forums of all kinds such as second-hand transactions performed in the flea market of local forum. Taobao accounts for the largest share of C2C platform market. There are massive people doing vegetable business on that platform and you can search about 400 thousands products related with vegetables and the turnover of some products are impressive. In this model, dealers usually deliver the products to consumer through third-party logistics which increases the logistics cost, so these kinds of products are usually of high quality and high price, which is not suitable for common fresh agriculture.

E-commerce model of agriculture dominated by government: Agriculture competent department of central and local government care the sales model of agriculture products and for now there are lots of e-commerce information websites and agriculture e-commerce experimental unit:

- **B2B model:** The e-commerce websites of agriculture products dominated by government mainly publish supply and demand information of agriculture. From the view of e-commerce model, it belongs to B2B. For example, agriculture information website started by information center of ministry of agriculture, publishes relevant information of agriculture products along with product demand information, which is called integrated business opportunity service website. But the e-commerce model dominated by government contains less information than industrial B2B platform.
- **B2C model:** Agriculture e-commerce dominated by government also applied B2C model, for example, agriculture e-commerce platform of Jilin province contains agriculture materials e-commerce platform, countryside commodity e-commerce platform, countryside auto e-commerce platform and food agriculture products e-commerce platform.

RESULTS AND DISCUSSION

The characteristics of the existing e-commerce model of fresh agriculture products: By analyzing

the existing e-commerce model of fresh agriculture products, we found it has several characteristics as follows.

The e-commerce model of fresh agriculture is diverse but of low level: Network survey found, e-commerce of fresh agriculture products consists of three models: B2B model, B2C model and C2C model. In B2C model, we can both establish offline B2C transaction platform directly and use B2C e-commerce platform. For now, in practice the e-commerce model of fresh agriculture products has come into being, however it is immature.

According to the survey, e-commerce model of fresh agriculture can be divided into three levels: primary level (publish information through website), medium level (realized online transaction) and advanced level (trade based on information system of virtual enterprise). The existing new-type e-commerce model of fresh agriculture products mainly publishes demand and supply information and the information of most products is not precise, product is not updated timely. B2C and C2C model have been appeared during the transaction online, but these models are still at medium level.

Operation object of e-commerce of fresh agriculture products in practice is small and weak against risk: The existing e-commerce operators of fresh agriculture products are usually in small scale, so they have weak financing capacity and anti-risk capacity. Most of them are circulation enterprises of medium, small and tiny scale, rural broker and cooperatives etc. and there are few B2C merchants of fresh agriculture with massive capital input and clear operation pattern. In the freely developed market, the small-scale individual of fresh agriculture has higher survival risk.

Resource integration capacity of e-commerce of fresh agriculture is insufficient and the benefit of e-commerce is not fully developed: At E-commerce times, E-payment enables the payer performing transaction with payee directly with electronic accounts instead of check. The advantage of spanning time and space has brought great value to e-commerce. However, in practice, as the operator is small and the resource integration capacity is insufficient, the e-commerce of fresh agriculture products hasn't displayed its great advantages and created value in each aspects.

Researches of innovative model proposed to innovate the information platform of e-commerce: E-commerce is a commercial activity accomplished via electronic means, it needs a support for the trade flow and information flow. Many scholars have realized this point and established platforms on the basis of different themes. Yang and Zhang (2012) proposed third-party

logistics establishing distribution center of fresh agriculture products and transmitting demand information of fresh agriculture products to information center through e-commerce platform. Hu (2011) proposed to establish rural e-commerce platform using existing public network resource. Tong and Pan (2011) proposed integrating industry chain of agriculture products according to standardized request and through information center established by supply and marketing department. Guo and Lu (2012) proposed establishing information exchange platform of production and marketing and circulation organization centered at major circulation enterprises. The researches together suggest that the existing e-commerce platform can't meet all the demands of e-commerce platform of fresh agriculture products, or fails to adjust to the demand of e-commerce of fresh agriculture products.

CONCLUSION

This study analyzed the characteristics of existing e-commerce model of circulation of fresh agricultural products and, focusing on the problems, proposed the below model conception: agriculture products transaction first get closed on bulk agriculture products website, then the products enters the storage and delivery step after the transaction of producing area and wholesales market at sales area has finished delivery. Consumer places order on e-commerce website of agriculture products, then the delivery center deliver the products to supermarket, farmers market or vegetables collecting site and consumers fetch the product on their own. The specifics are shown in Fig. 1.

We have to pay attention to several points as follows to assure the effective operation of the whole circulation e-commerce model and to realize the conception.

Establishing transaction website of bulk agriculture products: The price of fresh agriculture product is completely decided by the supply and demand of market. The lack of effective information spreading channel for the market may lead to insufficient information of the farmers which will result in "sales disaster". We should establish central e-commerce platform of price demand information which promotes the formation of price and price index of most agriculture products, thus the market orientation forms. Meanwhile, block trade should have financial function and can realize hedging and speculation.

Establishing modern cold chain storage base: At the present stage, consumer market of fresh agriculture products of China is still focused on pedlars' market. According to statistics, about 80% of the agriculture products in China are sold in farmer's market. Most of

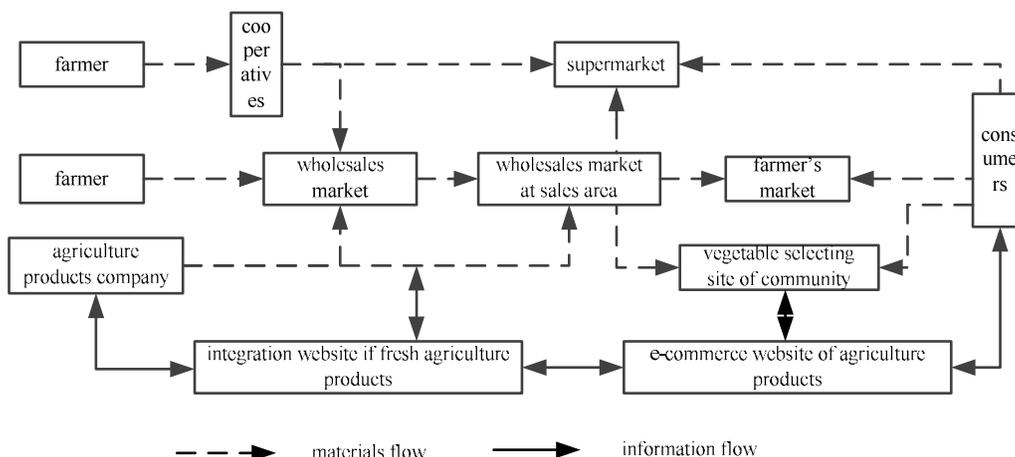


Fig. 1: E-commerce structure of fresh agriculture products

the products of farmer's market come from local wholesale market and vegetables wholesales market in most cities are only capable of gathering and distributing but not storage. Fresh agriculture product is a major constituent of agriculture economy. "Fresh" is where the life and value of fresh agriculture products lies and in the mean time, the fresh products contains loads of waster, can't kept long and is easy to rot, so when e-commerce of fresh agriculture products become widespread in the future, it has become more and more important to establish modern cold chain storage base. Fresh agriculture products are delivered to every corner of the world through logistics distribution center and kept fresh in the storage center of each logistics center (Lv and Sun, 2013).

Accelerating establishing agriculture cooperative and agriculture industrialization: E-commerce transaction requires more and more from product standardization and quality. As the participant of e-commerce, if cooperatives and individual are not qualified, they can't meet the demand of development. Local government should actively guide farmers to establish professional cooperatives and enhance the capacity of handing the market and controlling product quality during the production process, thus to adapt to the demand of the development of modern market and the e-commerce of agriculture in the future (Liu, 2013). In addition, we have to establish standardized agricultural development company and deal with online transaction of agriculture products in the future with standardized company management and professional production chain.

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