

## Integration Research on Online and Offline Agricultural Products

Shaojiang Lin and Jiaying Chen

Sichuan Agricultural University, Sichuan, China

\*Corresponding author Email: cjysc@qq.com

**Keywords:** Agricultural products; Electronic commerce; Online and offline

**Abstract:** Due to the problems such as the lack of basic facilities, high circulation costs and poor sales of production and marketing, the efficiency of agricultural products' circulation in China has always been in a low situation relatively. In this paper, it takes the overview of O2O business model as the starting point, with the analysis on the application of electronic commerce in agricultural products market, as well as the analysis on the online and offline interactive marketing, discussing the framework of O2O system, which is based on the integration of online and offline agricultural products, so as to solve the problems existed in the circulation of agricultural products.

### Introduction

The efficiency of the circulation of agricultural products can directly determine the income of the farmers, but due to the contradiction between small production and big market, plus the widespread circulation infrastructure is weak, moreover, the cost of circulation is high and marketing convergence is not smooth and so on, therefore, the efficiency of the circulation of agricultural products has been always in a relatively low situation. However, the rapid development of the Internet has provided a new way to solve these outstanding problems in the circulation of agricultural products, which also can improve the efficiency of agricultural product's circulation [1].

### The Overview of O2O Business Model

With the development of the Internet and the related Web technology, a new mode of e-commerce transactions has been rapidly arisen [2]. Online To Offline (O2O) model is a kind of new business model appeared in recent years which can combine the Offline payment together with the Internet, namely the Online mall can push some information about Offline store news to Online users by discounting, providing information, service and so on, then the users can carry out the online order process, payment and other processes, after having access to the relevant information, after that, consumers can get the related goods or services from the offline business according to the order receipt and so on. (see Fig. 1) Among the e-commerce, information flow, cash flow, logistics and commerce flow, O2O only put information flow, cash flow online, putting the logistics and commerce flow offline. [3-4] O2O can rely on the online trading engine to drive offline trading, so as to increase the participation of merchants and user's experience, and this kind of integration combined online and offline can produce breathtaking value. [5-6] Thus, the data analysis on the basis of this integration can provide for the sustainable driving force for the development of O2O model.

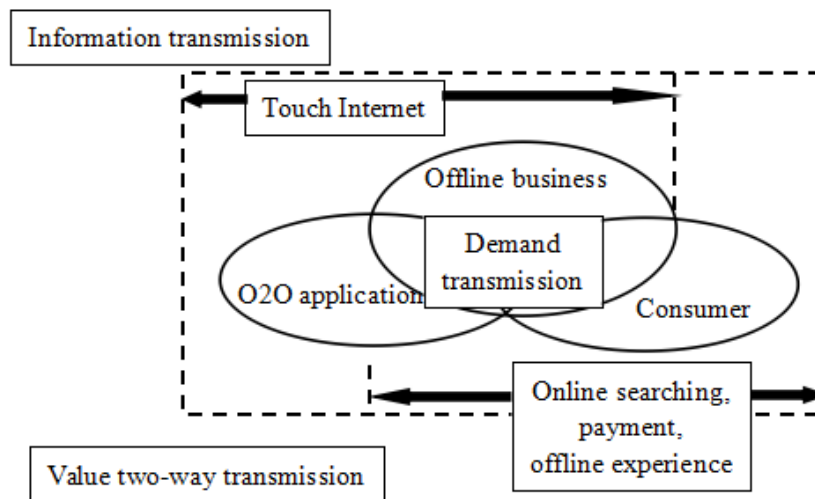


Fig. 1 O2O Business Model

### Application of agricultural E-Commerce and Interactive Online and Offline Marketing

The rapid development of information technology and electronic commerce made the traditional agricultural dealers study and participate in the application of E-commerce passively. Therefore, the traditional sales touched the Internet has become a hot focus, which made sales channels, especially the dual channel sales have rapid development. Multi-channel sales (Dual Channel Sales) is appeared in order to respond to the growing consumer channel migration behavior and multi-channel shopping [7]. As for the consumer's channel migration behavior, it refers to the transferring process that consumers migrating from online (offline) channels to offline (online) channels. Therefore, this process not only can include the purchase channels between migration but also can include the migration between information gathering channels (customer experience) and purchasing channel. This kind of channel migration behavior has two-way characteristics, which can be involved in the whole process of consumer's shopping, therefore, it appeared with a multi-channel shopping consumer behavior that consumers in the shopping process can use a variety of channels to collect information, have experience, go on trading, have sales, carry out logistics and other activities, among them, the online and offline shopping dual channel is the most important form [8].

### The Framework of O2O System Based on the Integration of Online and Offline Agricultural Products

Since the agricultural products regard different subjects as the core of circulation, the primary goal of O2O agricultural products is to solve the problem of the excessive circulation links and high circulation cost [9]. From the point of view of the existed agricultural products circulation system, a complete agricultural products circulation chain should include producers, the origin of the wholesale market or logistics center, processors, logistics business, sales to the wholesale market or logistics center, retailers, consumers, as well as a variety of circulation subjects; agricultural products have to transport from field to table, generally after the origin of the purchase, intermediate transport, wholesale and terminal retail links, some even have to experience more parts of the origin of the wholesale, sales to the wholesale, the secondary wholesale links, as well as other circulation links [10]. Therefore, the more the circulation links are, the higher the cost of circulation of agricultural products are, the bigger the agricultural products loss are, which will virtually raise agricultural product prices, resulting in a huge waste of resources, at the same time, the welfare of the consumers and stakeholders made a great amount of loss. In this paper, the construction of agricultural products O2O model (see Fig. 2), which is trying to streamline the circulation, re-integrate the circulation of agricultural products chain, connecting production and marketing efficiently, so as to promote the development of agricultural industrialization [11].

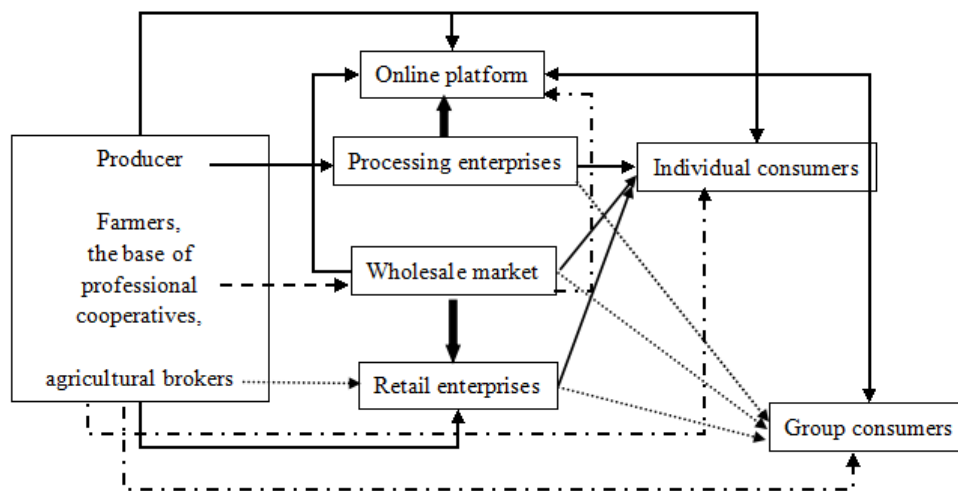


Fig. 2 O2O Model of Agricultural Products with Different Circulation Subjects as the Core

### The Operating Mechanism of O2O Agricultural Products

According to the different circulation subjects, the mode of O2O agricultural products can have various types, but its core is mainly about two basic points, namely, online and offline, only to realize the integration of online and offline with seamless link can it achieve better results. When the circulation subjects carry on O2O agricultural products, it can build online mall by itself, cooperating with the offline store [12]. At the same time, it can make use of the huge flow of the layout of the third-party platform, so as to have rapid promotion and bring in customers. Regardless who can be the subjects of carrying on O2O agricultural products circulation, the overall framework of O2O and the internal operating mechanism can have a lot of common things.

In the whole framework, the two systems are running at the same time. Online trading platform as the core of network marketing can bring a large number of consumers online transaction data and the generated contents of users for agricultural producers and circulation enterprises to have in-depth mining for the customer demands, so as to forecast market development trend. At the same time, the distributed companies can publish the relevant information, as well as the promotion of products and brand [13-14]. Consumers can enjoy the O2O model, which can provide online services. Through the comparison and selection, after making the decision to buy and generate orders, consumers can complete the online payment, after receiving agricultural products, they also can make evaluation form the network so as to form the good reputation for the company [15].

While the offline system is to regard the store as the core, where rich agricultural entities can be shown here, directly facing the terminal customers, providing a full range of shopping experience, submitting sales report to the headquarters every certain period, which can also provide more realistic basis for decision of circulation enterprises of agricultural products, so as to ensure the system normal operation. Producers of agricultural products through distribution companies signed contracts, then the agricultural products can be transported to offline store, some of the products are used for presentation and sale, others can be transported to the pointed location that online consumers specified in their orders through logistics and distribution. No matter the circulation enterprise entity stores or the consumers can inquire the related information about the agricultural product through the tracing system, which can play a positive role in ensuring the quality and safety of agricultural products.

### Conclusions

In the framework of O2O agricultural product, O2O is a typical bilateral user platform, while on one side, there are consumers in massive scale, on the other side, there is the various offline entities that can provide agricultural products and all kinds of real entities that can provide agricultural

products distribution, sales and service. If this platform wants to have efficient operation, it also needs to rely on the surrounding to give some auxiliary support, including searching engines, LBS, payment, social media and other powers of multi business, so as to constitute a complete ecological system.

## Reference

- [1] Claessens, S., Glaessner, T., & Kliengebiel, D.. 2003. Electronic finance: reshaping the Financial landscape around the world. *Management Science*. vol.1, pp1-44.
- [2] Barua, A., Konana, P.. 2004. An empirical investigation of net-enabled business value. *MIS Quarterly*. vol.4, pp585-620.
- [3] Lin, H. F., & Lin, S.M.. 2008. Determinants of e-business diffusion: a test of the technology diffusion perspective. *Technovation*. vol.3, pp135-145.
- [4] Mc Cole, P., & Ramsey, E. 2005. A profile of adopters and non-adopters of e-commerce in SME professional service firms. *Australasian Marketing Journal*. vol.1, pp36-48.
- [5] Patterson, K. A. & Grimm, C. 2003. Adopting new technologies for supply chain management. *Transportation Research*. vol.2, pp95-121.
- [6] Jay Joong Kun Cho, John Ozment, Harry Sink. Logistics capability, logistics outsourcing and firm performance in an e-commerce market [J]. *International Journal of Physical Distribution & Logistics Management*, 2008 (5): 336–359.
- [7] Harrington, L. H. Supply chain execution in the internet [J]. *Transportation & Distribution*, 2000 (1): 36-40.
- [8] Weihua Gan, Tingting Zhang, Yuwei Zhu. On Countermeasures of Promoting Agricultural Products' E-Commerce in China [J]. *IFIP Advances in Information and Communication Technology*, 2011(2):579-586.
- [9] Qinggang Wu. Present Situation and Countermeasure Research of China's cold-chain logistics development. *China's Circulation Economy*, 2011, (2).
- [10] Lihua Chen. Seek Breakthrough of Agricultural Products Cold-chain Logistics. *International Business Newspaper*, 2011, (04-06).
- [11] Ruyi Wang and Zhi Lu. One more contact: customer feedback system's affection on customer evaluation after a failure service. *Journal of Economic management*, 2013, 8 (8)
- [12] Tu Q, Vonderembse M A, Ragu-Nathan T S, et al. Measuring modularity-based manufacturing practices and their impact on mass customization capability: A customer-driven perspective [J]. *Decision Sciences*, 2004, 35(2): 147-168.
- [13] Yu J S, Gonzalez-Zugasti J P, Otto K N. Product architecture definition based upon customer demands [J]. *ASME journal of Mechanical Design*, 2009, 121 (3): 329-335.
- [14] Jinjun Feng, Juan Gu. An empirical survey of affecting factors for service industry's customer satisfaction. *Journal of Statistics and Decision*, 2013, 18 (6)
- [15] Kamukama, N., Ahiauzu.A. & Ntayi, J.M. (2011). Competitive advantage: mediator of intellectual capital and performance. *Journal of Intellectual Capital*, 12 (1) 152-164.