

Research on Supply Chain Optimization of Cross-border E-commerce

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Abstract. Under the trend of rapid growth of China's import and export trade volume, the cross-border e-commerce supply chain with e-commerce as the core has problems such as lack of supply chain management and lagging process efficiency. Therefore, how to optimize supply chain management and improve logistics efficiency is the main challenge for cross-border e-commerce. This paper makes a certain analysis of the status quo of cross-border e-commerce supply chain, compares the advantages and disadvantages of various supply chain models, analyzes the macro factors and specific factors that affect the supply chain model, and finds that the factors affecting supply chain management are different at each stage. Based on this paper, a series of measures are proposed for the optimization of cross-border e-commerce supply chain to help cross-border e-commerce entities of different scales adopt their own mode of supply chain optimization.

Introduction

Although cross-border e-commerce has experienced a period of more than a year and two years of rapid development, the industry itself is still in its infancy. There are still problems in the industry that have not been well solved. In the various links of the supply chain, there are still various diversified problems such as weak information management, insufficient management, discontinuous links, high costs, and no scientific planning for storage. Overall, supply chain management is lagging behind and the method is relatively simple.

Based on the above background analysis, this paper believes that with the detonation of domestic demand and the consumer experience, the supply chain will become a key link for cross-border e-commerce to continue to develop rapidly; the supply chain is king, must be divided into cross-border electricity The market structure of the business. Therefore, how to optimize existing supply chain links, how to optimize supply chain costs, and how to optimize supply chain information management are urgent problems.

The Meaning of Cross-Border E-Commerce and Supply Chain Management

Cross-border e-commerce refers to the transnational e-commerce trade activities realized by cross-border transaction entities through the network, e-commerce platform and other means to complete the sale and purchase transactions, realize payment settlement, and through the import and export links of cross-border logistics. Due to the different laws of different countries, the differences in transnational management and the differences in import and export policies, this paper focuses on the analysis of supply chain conditions in cross-border import e-commerce [1].

Supply chain management refers to the activities of the enterprise to comprehensively plan logistics, information flow, capital flow, etc., using network information technology for planning, control, coordination and organization. Supply chain management is divided into five key links: planning, procurement, manufacturing, distribution and after-sales service. The complete supply chain includes suppliers, intermediaries, retailers, transportation services and end users. The cross-border e-commerce supply chain is slightly different. The general can be summarized as: a

network composed of brand owners, cross-border e-commerce platforms, warehouses, and third-party logistics service providers [2].

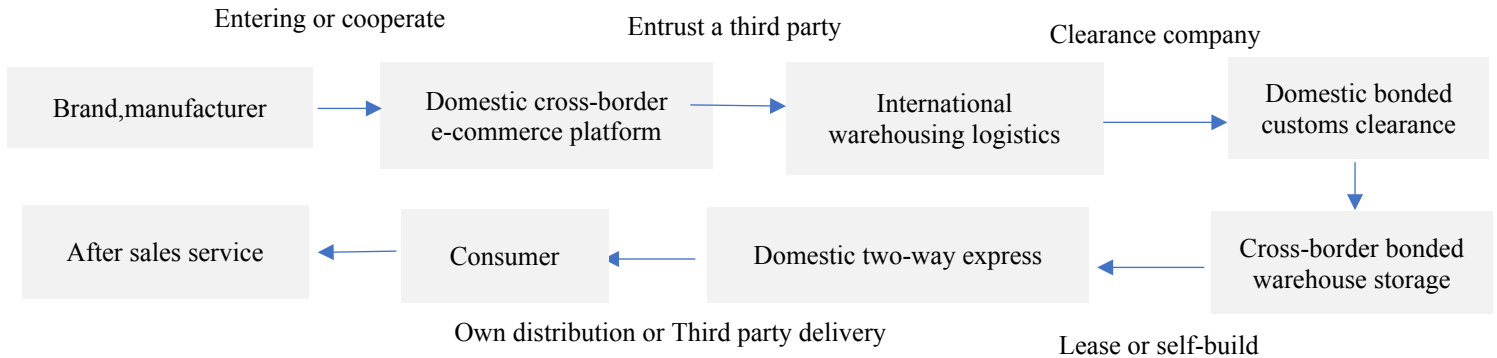


Figure 1. Detailed links of cross-border import

The Status Quo of Cross-Border E-Commerce Supply Chain Management

Analysis of the status quo of domestic cross-border e-commerce supply chain. At present, the current supply chain status of Tmall International, JD Global, Honey Bud, Ocean Terminal and Amazon represents the current supply chain status of most cross-border e-commerce companies in China.

Table 1 Comparison of supply chain of five major e-commerce platforms

Representative	Advantage	Disadvantage	Supply chain strategy	Custom clearance, logistics mode
Ocean dock sweeping artifact	Overseas buyers are distributed in the world, using advanced on-site procurement and live broadcast technology to gather overseas, almost all product categories, and abundant supply.	1.the goods are difficult to distinguish between true and false; 2.the buyer's transaction credit is not balanced; 3. the customer experience needs to be improved; 4.the goods are longer.	In order to solve the problem of cross-border logistics links, we have built an international logistics system and explored a unique profit model.	Overseas direct mail, self-built Overseas warehouse.
Tmall International	Merchants settle in Tmall International, receive a 5000-10000 US dollar annual fee and deposit, and pay a 3-6% commission.	1. The investment is slow, and the previous traffic is relatively low.2. The performance of foreign sellers in China's e-commerce is limited, and the profitability is uncertain;3. The user's platform usage fee is charged, and the amount of funds required in the previous period is large.	1. Enter into strategic cooperation with postal and logistics systems in specific countries. 2. Establish self-built public bonded warehouses in Hangzhou, integrate high-quality logistics parties, and provide customers with full supply chain services.	Overseas direct mail + bonded Stocking, supply chain Cocaine logistics.
Jingdong Global Purchase	1. Self-operated direct mining + partial direct mail; the first batch of online products exceeded 150,000, and the number of brands exceeded 1200. 2. Strong and standardized supplier management;	1. The categories are mainly based on standard products and explosives, and the richness is poor. 2. Self-supporting, general support policies for businesses, and poor recruitment of overseas investment.	1. overseas direct mining; 2.,Jingdong distribution, pay attention to the last one kilometer customer experience; 3. provide Jingdong Finance and other business support. Cross-border supply chain management capabilities.	Bonded stocking mode, self-built bonded warehouse, fromJianjing East distribution.
Amazon	All of Amazon's "Overseas Purchase" stores are sourced from Amazon's US website and are licensed by the brand and have absolute quality assurance.	Starting late, the need to grasp the consumption needs of local users needs to be improved.	1. overseas purchase + international boutique + import direct mining shop; 2. overseas The logistics warehousing system is perfect and the SKU is abundant.	Bonded stocking + overseas Direct mail, self-built bonded Warehouse, part of self-built flow.

Problems in cross-border e-commerce supply chain management. The confusion faced by cross-border e-commerce companies not only comes from the limited understanding of relevant national support policies, but also from the unfamiliarity of the various links in the supply chain such as the signing of overseas brand agency rights, customs clearance and logistics and warehousing.

International and domestic warehousing management is lacking in standardization, insufficient informationization, and high cost. At present, large-scale e-commerce platforms such as Jingdong, Tmall, and Netease have overseas warehouses and bonded warehouses at home and abroad. Self-built warehousing of e-commerce enterprises is conducive to internal management, enhance customer experience and reduce supply chain costs in the long run, but it will also increase operating costs in the short term [3].

Low customs clearance and chaotic customs clearance. Cross-border e-commerce as an emerging industry, its complex customs, quarantine, and tax issues have reduced the efficiency of e-commerce companies. The holistic and scatter mode improves the complexity of customs clearance, reduces the efficiency of customs clearance, and the overall timeliness is not good.

Logistics costs are difficult to control. First of all, the cost of cross-border logistics is relatively high. A large number of cross-border logistics mainly depend on the influence of weather, which greatly increases the cost of logistics. [4] Secondly, China's cross-border logistics has not kept up with the development of the times. Really realized. Cross-border trade cannot meet the growing demand, and to a large extent has restricted the development of cross-border logistics e-commerce, but more and more logistics companies are focused on providing supply chain services for import cross-border e-commerce [5]. Environmental e-commerce companies provide professional overseas brand merchandise supply chain, customs clearance and e-commerce warehouse supply chain services to deal with the problems they encounter in these areas, so they are self-built or with third-party and fourth-party logistics companies. Cooperation is a problem that cross-border e-commerce companies must consider in accordance with their own development strategies.

Analysis of the Influencing Factors of Cross-Border E-Commerce Supply Chain Management

Analysis of macro factors: Analysis of economic factors. Strong market demand and strong consumer purchasing power are the signals released by the Chinese e-commerce market and the driving force for attracting overseas goods into China. Under the general situation of global economic integration, under the influence of tariff reduction, reduction of trade barriers, increased purchasing power of renminbi, globalization of trade, and various comprehensive economic factors, cross-border e-commerce must continue to be hot. [6] The global form of global buying and global sales will be more It has been praised by the government and accepted by consumers.

Analysis of industry factors. The cross-border e-commerce industry is characterized by its use of electronic commerce as a platform for cross-border trade. It has been sought after by traditional industries, e-commerce and capital industries. In the globalized market, the products are rich in geometric growth. The pursuit of overseas products by Chinese consumers has brought business opportunities in this industry, and it has also brought a tipping point for the next decade of e-commerce development. Getting through the global supply chain is a difficult and a business opportunity for cross-border e-commerce.

Analysis of specific influencing factors: Supplier. From the perspective of cross-border e-commerce, the requirements for the authenticity of the supplier management products and the regulatory requirements of the channels are becoming more and more stringent. Therefore, the focus of supplier management is: supplier selection, supplier evaluation, planning, cost control, information symmetry and so on. How to choose a reputable and powerful supplier and try to avoid the choice of exclusive suppliers, prevent suppliers from buying prices, and exert great pressure on the purchasers are all concerns of cross-border e-commerce companies [7].

Consumer. Customers in cross-border e-commerce are most interested in buying fast-moving consumer goods such as maternal and child goods, cosmetics, clothing, daily necessities, and

electronic products. The repurchase rate is high. Therefore, it is decided that the category of cross-border e-commerce will be mainly fast-moving in the short term. At the same time, the average age of nearly half of the consumers of cross-border e-commerce consumers is 30-40 years old. Stable, strict quality requirements, branded plots, etc., the most typical of which is the purchase of overseas products by Haitao milk powder as an opportunity.

Cross-Border E-Commerce Supply Chain Optimization Recommendations

Optimizing the comprehensive evaluation system of suppliers. The supplier evaluation system is divided into the following major blocks: supplier performance, financial status, cost status, quality, supplier organization and management, and other factors. These can be set as the first-level indicators, and according to the different emphasis of each enterprise, set the corresponding secondary indicators, and finally establish their own supplier evaluation system to score suppliers [8].

Supplier actual score

$$= \sum_{i=1}^x \text{First — order weight} \times \left(\sum_{i=1}^y \text{Secondary weight} \times \text{evaluation score} \right)$$

(i is from the first indicator, x is all first-level indicators, and y is all secondary indicators)

Optimization of information management. Improve the connection between information flow and consumers. That is to say, through the e-commerce platform terminal, the information such as the outbound, customs clearance and logistics of the goods purchased by the consumer can be inquired in a timely and effective manner, and the final problem of the cross-border e-commerce logistics is solved. At the same time, strengthen the information management of warehouse management [9]. Most e-commerce companies have insufficient experience in warehouse management. Many warehouses are not equipped with professional WMS systems and terminal intelligent devices. Therefore, the terminal equipment information is processed and transmitted to the back-end warehouse management system in time, and the goods information is converted into electronic information in time. Inventory management, guiding procurement planning [10].

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