

An Empirical Analysis on the Change of Commodity Circulation Channels Based on International Trade E-Commerce

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Abstract: The circulation of goods from production to consumption must go through circulation channels, and the efficiency of circulation channels will determine the overall efficiency of commodity circulation. This paper analyzes the function, elements and basic structure of commodity circulation channels, and probes into the causes and trends of the changes of commodity circulation channels. With the development of Internet and e-commerce, the commodity circulation channels show an obvious trend of electronization. The circulation links are more abundant, and the space for trade enterprises to choose is larger. The reform of circulation channels optimizes the structure and overall layout of international trade, improves the total amount of international trade and circulation efficiency, and the relevant empirical analysis data also shows that the reform of circulation channels is an important factor affecting the development of international trade, which helps to improve the international competitiveness of China's import and export trade enterprises.

1. Introduction

The function and elements of commodity circulation channel. Commodity circulation channels determine the direction of commodity circulation and play a decisive role in commodity trading and distribution. The circulation channel restricts the production capacity and inventory of producers to the upstream and consumers' preferences and choices to the downstream, which shows that the commodity circulation channel plays a very important role in the commodity exchange and social redistribution activities[1]. Commodity circulation channel not only determines the direction of commodity circulation, but also has an important impact on the distribution of monetary income to some extent. No matter for producers, consumers or the whole national economy, the role of circulation channel is critical and direct. Only by constructing commodity flow scientifically and reasonably

2. Only Through Channels can We Create More Commodity Circulation Value

The elements of circulation channel mainly include circulation parties, circulation organization form and commercial flow direction. Manufacturers are the main circulation parties and the starting point of circulation activities; consumers are the final demanders of commodities, and the significance of circulation channels is to serve the final consumers, and consumers are the end of commodity circulation activities[2]; in addition, in the construction of commodity circulation channels, there are logistics institutions, government management departments, market research institutions and financial and insurance institutions. The organizational form of circulation channel covers all links of commodity circulation, which mainly refers to the links of commodity purchase, storage, processing, transportation and sales[3]. The organizational form of circulation channel is the object of commodity circulation. Only after these networks or systems are formed, can commodities flow smoothly in the channel. The main direction of business flow is from production to consumption. However, due to the variety of commodities and the complex and changeable relations between production and marketing, the specific forms of commodity circulation channels are also changing.

3. The Basic Structure of Commodity Circulation Channels

The structure of commodity circulation channel is related to the efficiency and cost of commodity circulation[4]. The channel structure mainly refers to the basic composition of each participant and organization in the process of commodity flowing from production to consumption. The characteristics of commodity itself will determine the composition of commodity circulation structure. The structure of circulation channel mainly includes vertical structure, horizontal structure and spatial structure. The vertical structure covers the main participants in the commodity circulation activities, such as producers, consumers, middlemen, etc. according to the product characteristics and whether there are middlemen, the vertical structure is divided into direct channels and indirect channels; the horizontal structure refers to the width of the link in the commodity circulation process, that is, the number of realization paths of commodities from the production field to the consumption field. The vertical structure and the horizontal structure interweave together to form the spatial network structure of the circulation channel, and countless local spatial circulation network structures finally form the circulation network structure of the whole national economy. The change of commodity circulation channel mainly refers to the optimization of circulation channel structure in space. The ultimate goal is to improve the efficiency of commodity circulation and realize the optimal allocation of resources in the field of commodity circulation[5]. The development of the Internet has subverted the traditional way of commodity trading, which has a direct impact on the traditional way of commodity circulation, and also has an indirect impact on the way and total amount of international trade.

Table 1 Change trend of total trade in Zhejiang Province from 2012 to 2017 (unit: 100 million yuan)

Particular year	2012	2013	2014
Import trade volume	19720	20796	21575
Particular year	2015	2016	2017
Import trade volume	22889	24567	28756

4. Change Trend of Circulation Channels

4.1. Reasons for the Transformation of Commodity Circulation Channels

Consumer demand is the basis of the transformation of commodity circulation channels. If the demand for a certain commodity increases significantly, the circulation channels for that commodity will be widened and the supply chain will be shortened. Therefore, in essence, the law of commodity value and market determines the transformation of commodity circulation channels. The development of science and technology and the improvement of the efficiency of commodity circulation are one of the driving forces for the transformation of commodity circulation channels. The development of science and technology and network has given birth to the new mode of commodity exchange, e-commerce, and also brought about the transformation of commodity circulation mode. The direct impact of the development of social productivity will bring about the improvement of labor efficiency, but also the improvement of commodity circulation efficiency. Under the backward productivity conditions, the information communication between producers and consumers is not smooth, and a lot of profit space is reserved for middlemen. With the development of network technology, the transparency of commodity circulation is significantly improved, and there is no secret between all links of commodity sales[6]. In this context, commodity producers can directly communicate with consumers, and there is no need for too much Intermediate links, and the developed logistics network and payment system also provide technical and logistics support for the transformation of circulation channels. In addition, the development of social productivity makes the total social supply greater than the total demand, and there is a very fierce competition between producers. In order to survive in the competition, commodity producers must also change the circulation channels to give full play to the price advantages of their products.

4.2. The Changing Trend of Commodity Circulation Channels

Under the background of Internet, the commodity circulation channels show an obvious trend of electronization[7]. The emergence of electronic commodity circulation channel structure has changed the operation principle, structure mode and channel member composition of the original commodity circulation channel. The structure comparison between traditional commodity circulation channel and electronic commodity circulation channel is shown in Figure 1. Under the influence of the Internet and communication technology, the commodity circulation channel has appeared the trend of electronization[8]. The network technology promotes the online transaction mode of the buyer and the seller to replace the traditional face-to-face transaction mode. However, the transformation from traditional commodity trading mode and circulation mode to electronic mode can not be completed overnight. Instead, it is a long-term process, more manifested as the integration of the two commodity circulation modes. The transformation of commodity circulation channel mode is mainly manifested in two basic forms: one is simple transformation, that is, integrating e-commerce elements on the basis of the original circulation mode, for example, business communication can be carried out through the network, but this mode is still the traditional circulation mode in essence; the other is the electronic circulation mode, that is, building commodity flow according to the standards of e-commerce Through channels, we act in full accordance with the Internet trading rules. At present, although the commodity trading mode and circulation mode of e-commerce are mature, there are still obvious defects and deficiencies in the construction of relevant infrastructure, technical level and standards[9]. Therefore, the current electronic commodity circulation mode is mostly between the two, which does not fully realize the electronic commodity circulation channel. Nevertheless, the electronization of commodity circulation channels is one of the main trends in the development of China's circulation industry in the future. One of the preconditions for the electronization of commodity circulation channels is the construction of sharing information platform. Without information transmission and sharing, electronic commodity circulation channels cannot be realized. With the development of Internet technology and e-commerce, there is a certain degree of virtualization trend in the existing commodity circulation channels. The commodity trading places are no longer fixed, and the importance of node enterprises in the intermediate link of commodity channels begins to decrease. Both the supplier and the demander can fully realize the e-commerce of commodity circulation and commodity trading with the help of the Internet and e-commerce platform. It is true that there is still a long way to go to fully realize the e-commerce of commodity circulation. At present, the mode of commodity circulation in China is more manifested in the combination of traditional circulation and e-commerce. With the further improvement of China's logistics system, payment system and credit system, e-commerce and e-commerce will play an increasingly important role. The change of commodity circulation channels has a very important impact on China's circulation industry and the operation of the national economy as a whole. At the same time, it has a positive role in promoting the development of international trade. It can improve the circulation transformation and total volume of international trade, and also help optimize the industrial structure and overall layout of China's international trade.

5. An Empirical Study on the Influence of Changes in Circulation Channels on the Development of International Trade

5.1. Optimize International Trade Structure and Overall Layout

The development of circulation industry, the innovation of commodity circulation technology and the reform of commodity circulation channel will fundamentally optimize the industrial structure and overall layout of China's international trade. The transformation and upgrading of circulation channels will gradually decompose the industrial chain of international trade under the original channel mode, and form a brand-new industrial structure suitable for e-commerce. The adjustment of industrial structure of international trade will directly affect the total amount and efficiency of international trade. Under the influence of e-commerce and circulation channels, traditional industrial departments will also optimize and upgrade, and realize the rational

distribution of production factors and the optimal allocation of various resources within the industry. The electronic commodity circulation channel shortens the supply chain length between producers and international traders, promotes the optimization of trade structure and the transformation of international trade growth mode. At the same time, the electronic commodity circulation channel also gives international traders more choice space to choose suppliers with better product quality. Both the electronic trading mode and the circulation mode are significantly improved. The efficiency of commodity circulation in international trade greatly shortens the supply cycle. Under the influence of traditional commodity circulation channels and trading modes, Chinese enterprises engaged in international trade can not effectively control the supply chain, source of goods and product quality, which affects the credibility of Chinese commodities in the international market. The reform of circulation mode will also effectively improve the original extensive growth mode of international trade and promote the sustainable development of international trade. The construction of electronic commodity circulation channels can further optimize the overall layout of international trade and help the international e-commerce system to create a new commodity circulation platform. The commodity circulation platform, which integrates various trading modes, can improve the confidence of both sides in international trade and reduce the risks in international trade. The overall layout of China's international trade includes not only light industrial products, textiles and food, etc. with the improvement of China's electronic technology industry and high-precision manufacturing industry, some high-tech products and high-end machinery manufacturing industries are also included in the overall layout of export trade, and smooth, efficient and safe circulation channels will be the key to improve the overall layout of export industry. In short, in the e-commerce environment, efficient, flat, fast and safe commodity circulation channels can gradually optimize China's international trade structure and overall layout. In addition, electronic commodity circulation channels can also improve the total amount of international trade transactions and commodity circulation efficiency, and promote the further development of China's international trade.

5.2. Increase the Total Volume of International Trade Transactions

With the improvement of international trade market integration, many economic variables, including commodity circulation channels, will have an important impact on the fluctuation of total international trade. Based on the classic trade fluctuation theory, this paper focuses on the impact of changes in commodity circulation channels on the total volume of international trade transactions (relevant statistical analysis resources and data are from China's import and export trade network in 2008-2017). Seven specific index factors of four major economic variables are selected to study the influence of commodity circulation channel variables on the overall international trade. The specific indexes include GDP growth rate X_1 , fixed asset investment growth rate x_2 , revenue and expenditure growth rate x_3 , export tax rebate rate x_4 , and total credit amount x_5 in the macroeconomic operation variables, exchange rate index x_6 , factors affecting commodity circulation channel in circulation policy x_7 . SPSS software was used to analyze 7 index variables. Kmo test value was 0.613, which exceeded 0.5, while Bartlett spherical test had a significant probability of zero, which proved that factor analysis model had good effect. Taking the seven selected indexes as the common factors, and based on the multiple linear regression equation, the comprehensive factor score y $YT = t_0 + t_1 \times 1 + t_2 \times 2 + t_3 \times 3 + t_4 \times 4 + t_5 \times 5 + t_6 \times 6 + t_7 \times 7 + \varepsilon$ (1) is calculated, where t_0 is the initial regression coefficient, $t_1 - t_7$ is each factor coefficient affecting the total international trade, and ε is the error term. Taking China's export data in 2008-2017 as the description sample, the scores of seven influencing factors are statistically analyzed, which shows that the commodity circulation channel factor X_7 and export tax rebate factor X_4 have the greatest impact on the total amount of international trade, and also on the comprehensive scores. Taking Zhejiang Province, which has the most developed e-commerce and electronic commodity circulation channels in China, as an example, this paper analyzes the change of its total import and export trade in 2012-2017. According to the statistics of relevant data, the ratio of the electronization of commodity circulation channels in Zhejiang Province is roughly the same as the

growth rate of the total import and export trade in Zhejiang Province. It can be seen that the electronization of commodity circulation channels can promote the development of the import and export international trade industry, which is a balanced development, not only in the growth of total trade, but also in the improvement of the efficiency of international trade circulation Noodles.

5.3. Improve the Efficiency of International Trade Circulation

The innovation of commodity circulation channel is one of the effective ways to promote the development of international trade. Because the electronic trend of commodity circulation channel promotes the construction of new commodity circulation network, which increases the link of commodity circulation among the enterprises in the supply chain, so in the process of domestic commodity transportation, import and export traders and domestic enterprises can choose the most economical commodity circulation channel. In the international commodity transportation, the best international commodity circulation channel can also be selected between domestic import and export traders and foreign customers based on the Internet and e-commerce. The electronic trend of domestic and international commodity circulation channels provides more choices for import and export traders, which can improve the efficiency of commodity circulation. The electronic commodity circulation channel can also gradually standardize the order of commodity circulation among the node enterprises in the supply chain, shorten the circulation time of commodities from the production field to the consumption field, and gradually form a dynamic commodity circulation network system. In the process of improving the comprehensive import and export international trade and commodity circulation efficiency, it is necessary to play the core role of import and export enterprises to build a large-scale electronic network trade platform with import and export enterprises as the core, which is not only responsible for commanding the overall international trade commodity transactions, but also able to select appropriate commodity circulation channels according to the specific trading time and total trading volume. The e-commerce platform for international trade integrates the functions of commodity transaction, import and export tax refund and customs declaration, overseas payment and cross-border logistics, significantly improves the efficiency of international trade in import and export, and gradually promotes the construction of international e-commerce system. Internet, e-commerce and electronic commodity circulation channels have a very important impact on the choice of international trade mode and future development trend. With the further improvement of the international commodity circulation channel system, China's international trade will move towards the direction of electronization, platformization and modernization.

6. Conclusion

The development of e-commerce will inevitably bring about the transformation of commodity circulation channels, and the efficient e-commerce circulation channels will in turn drive the development of e-commerce, international trade and even the whole national economy. This paper analyzes the transformation of commodity circulation channels in the e-commerce environment and the positive impact on China's international trade industry. At present, the growth of global international trade is weak, and the prevalence of local protectionism and regional protectionism has brought serious impact on the development of China's international trade. At present, China can rely on strong domestic demand to maintain a smooth transition of the national economy, but in the long run, we need to continue to tap the huge potential of the international trade market. The trading mode and commodity circulation mode of international trade have undergone profound changes, showing the overall trend of integration and equalization. With the progress of China's manufacturing industry and science and technology, the level of product quality has been different, and under the support of strong domestic demand and developed commodity circulation channels, China can play a dominant position in international trade. The transformation of commodity circulation channels not only increases the total amount of international trade, but also improves the circulation efficiency of China's commodities in the international market. From the perspective of future development trend, the trend and degree of electronic commodity circulation channels will be

further deepened, and will play a more important role in the development of China's international trade.

References

- [1] LINQing, HE Yong,. (2017). School of Management,. Impact of Differential Pricing Strategy of the Dual-channel Suppliers on Distribution Channel. *Journal of Systems & Management*.
- [2] Robert J. Chant, Christopher K. (2018). Sommerfield, Stefan A. Talke. Correction to: Impact of Channel Deepening on Tidal and Gravitational Circulation in a Highly Engineered Estuarine Basin. *Estuaries and Coasts*, vol. 41, pp. 8.
- [3] Damien Sous, Cristele Chevalier, Jean-Luc Devenon,. (2017). Circulation patterns in a channel reef-lagoon system, Ouano lagoon, New Caledonia. *Estuarine Coastal & Shelf Science*, vol. 196.
- [4] Theresa M. Olasveengen, MD, PhD,. (2017). 2017 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations Summary. *Circulation*, vol. 136, no. 23.
- [5] Timothy Wallace Cronin, Allison A. Wing. (2017). Clouds, Circulation, and Climate Sensitivity in a Radiative-Convective Equilibrium Channel Model. *Journal of Advances in Modeling Earth Systems*, vol. 9, no. 20.
- [6] L. Lamas, A. Peliz, J. Dias,. (2017). Diurnal variability of inner-shelf circulation in the lee of a cape under upwelling conditions. *Continental Shelf Research*, vol. 143.
- [7] Lozier J F. (2017). Histoire des coureurs de bois : Amérique du Nord, 1600–1840 by Gilles Havard (review), vol. 98.
- [8] Bang Y, Han K, Animesh A, et al. (2017). Drivers and Consequences of M-Commerce Channel Adoption In E-Marketplace: An Empirical Investigation.
- [9] Efrén Martínez-Quintana, Alberto Monescillo, Fayna Rodríguez-González. (2017). Hepatocellular carcinoma in a non-failing Fontan circulation. *Revista espanola de enfermedades digestivas: organo oficial de la Sociedad Espanola de Patologia Digestiva*, vol. 109, no. 5, pp. 375-375.