

Analysis on the Interest Coordination Mechanism in Cross-border e-commerce subject

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Abstract: Supply chain is composed of many joints. If it is to realize value integration, conduct of different firms on the supply chain should be coordinated. The overall value of supply chain can be maximized by strengthening coordination of different firms on supply chain. However, the B2B cross-border e-commerce supply chain, which is the leading mode of cross-border e-commerce supply chain in China, is still far from value integration. So this thesis analyzes the interest coordination mechanism between cross-border e-commerce firms and foreign agents, between cross-border e-commerce firms and cross-border logistics service suppliers, between cross-border e-commerce firms and foreign competitors as well as between cross-border e-commerce platforms and cross-border e-commerce supply chain. What's more, the interest coordination mechanism between cross-border e-commerce firms and foreign agents will be analyzed under five circumstances because their interest formation mechanism is different under different market structures.

Keywords: Cross-border E-commerce; Interest Coordination Mechanism; Cross-border E-commerce Platforms; B2B;

1. INTRODUCTION

Supply chain is composed of many joints. If it is to realize value integration, conduct of different firms on the supply chain should be coordinated. The overall value of supply chain can be maximized by strengthening coordination of different firms on supply chain. However, the B2B cross-border e-commerce supply chain, which is the leading mode of cross-border e-commerce supply chain in China, is still far from value integration.

2. ANALYSIS ON THE INTEREST COORDINATION MECHANISM BETWEEN FIRMS AND AGENTS

It is found that Zeuthen tactics based on Bayesian learning theory can reach Nash cooperation resolution when one cross-border e-commerce firm and one foreign agent encounters. But when many cross-border e-commerce firms are formed at the

selling part of cross-border e-commerce supply chain, then trigger tactics can be used to prevent firms' betrayal and accelerate non-cooperative collusion with perfect information and price-trigger tactics can be introduced with imperfect information. If many foreign agents are formed at the buying part of cross-border e-commerce supply chain, their interests can be coordinated on the basis of compensation contracts. To be concrete, when the foreign agents are homogeneous, then alliance can be made to increase their interests. But when they are heterogeneous, cross-border e-commerce firms should choose the most efficient agents by stimulation contracts, which means transfer some profit to foreign agents. However, if there is only one foreign agents at the buying part, then the foreign agents can realize the maximization of the supply chain value by introducing revenue-sharing contracts. At the same time, the supply chain finance can be used to solve the capital problem of non-core subjects, whose credit problem can also be solved by reputation mechanism. If there is only one cross-border e-commerce firm at the selling part, then the seller with market power should conduct some vertical restraints, which includes exclusive franchise mechanism, reselling price controlling as well as bundling mechanism.

3. ANALYSIS ON THE INTEREST COORDINATION MECHANISM BETWEEN FIRMS AND LOGISTICS SERVICE SUPPLIERS

The interest coordination mechanism between cross-border e-commerce firms and cross-border logistics service suppliers is analyzed. The level of effort cannot be observed because of objective condition. So the service suppliers will have no incentive to work had if fixed income is given to them. Then the suppliers should share some risks with imperfect information to improve their service quality, which means their income should be connected with their service quality. However, the service quality is still objected to other factors besides their effort. If some variable which has nothing to do with the service quality but is connected with the factors, then this variable can be

used to decrease the effect of random factors on suppliers' income. On the concrete, if the variable is positively correlated with random factors, the income of suppliers should be decreased when the variable becomes better. What's more important, the service is completed by several suppliers together under many cases. So each supplier has no incentive to improve their work if the budget is balance. At this time, the budget should be broken and team rewards or punishment should be introduced to solve this problem, which means rewards or punishment will be given when the service quality is reached or not reached. Finally the interest between cross-border e-commerce firms and cross-border logistics service suppliers can be coordinated.

4. ANALYSIS ON THE INTEREST COORDINATION MECHANISM BETWEEN FIRMS AND FOREIGN COMPETITORS

Thirdly, the interest coordination mechanism between cross-border e-commerce firms and foreign competitors is analyzed. Cross-border e-commerce firms will encounter foreign competitors inevitably when they sell products to foreign customers. How to deal with those competitors is directly with their interests and the foreign customers. It is undeniable competition will increase customers' welfare. But from the perspective of cross-border e-commerce firms, competition will decrease the overall value of cross-border e-commerce supply chain, which will harm the positiveness of firms as well as the interest of the whole nation. So the interest coordination mechanism between cross-border e-commerce firms and foreign competitors should be analyzed. On the concrete, when the cross-border e-commerce firms compete with the existing competitors, it is the best tactics to make themselves be tit for tat, through which the interest can be coordinated with repeated game. However, if there is no existing competitors when entering foreign markets, the firms should take measures to prevent potential entry such as increasing transfer cost by lowering price of products. But under many circumstances, the transfer cost is so minor that it is hard to cultivate loyal costumers, under which the entry is inevitable. So the firms should predate the new entrants by reducing the price through expand their production, after which merging the entrants will come into being and monopoly will happen in the future.

5. ANALYSIS ON THE INTEREST COORDINATION MECHANISM BETWEEN PLATFORMS AND SUPPLY CHAIN

Lastly, the interest coordination mechanism between cross-border e-commerce platforms and cross-border e-commerce supply chain is analyzed.

There are two problems to be solved with this mechanism. One is the functional localization and development path of cross-border e-commerce platforms. The other is the pricing mechanism of cross-border e-commerce platforms. It is found that B2B cross-border e-commerce platforms replace the traditional role of trade middleman to some extent, and act as trade middle platform. But different from trade middleman, cross-border e-commerce platforms don't take profit as their final goal. As a result, they charge a lower compensation fee and a higher value-added fee. Although cross-border e-commerce platforms can decrease the cost of information searching, yet the information discrimination cost will be increased, which brings quality risk to sellers and buyers. So the future development of cross-border e-commerce platforms should be led by the direction of reducing information discrimination cost and heads for a more specialized path. While the extent of specialization is determined by the balance of the cost of information searching and discrimination. As to the pricing mechanism, different price tactics should be made to different customers with different demand. A higher fixed fee and a lower marginal fee should be charged to costumers with high demand and A lower fixed fee and a higher marginal fee should be charged to costumers with low demand. This pricing mechanism is consistent with the future development path of cross-border e-commerce platforms. If the costumers with low demand are charged with a higher fixed cost ,they they will not enter the platform. While the costumers with high demand will build their own platforms if they are charged with a higher marginal fee. So this pricing mechanism will solve this problem to some extent.

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REFERENCES

- [1]Shao Peng, Hu Ping, Case Study on the Innovation and Evolution of Business Model of Electronic Commerce Platform, *Scientific Research Management*, 2016, 37 (7): 81-88 .
- [2]Ma Shuzhong, Chen Aojie, Cross-border E-commerce: B2B or B2C--From the Perspective of Sales Channel; *International Trade Issues*, 2017 (3): 75-86.
- [3]Bakos Y., Katsamakos E., Design and Ownership of Two-sided Networks: Implications for Internet Platforms[J], *Journal of Management Information Systems*, 2014,25(2):171-202.
- [4]Bhargava H. K., Vidyan C., Economics of an Information Intermediary with Aggregation Benefits[J], *Information Systems Research*, 2004,15(1):22-36.

[5]AB Bernard, J Eaton, JB Jensen,S Kortum, Plants and Productivity in International Trade[J],American Economic Review, 2003 , 93 (4) :1268-1290.

[6]Beamon B.M.(1998). Supply chain design and analysis: Models and methods, International Journal of Production Economics, 55(3), 281-294.

[7]Cardona M., Wilson C.(2015). Redress and

alternative dispute resolution in EU cross-border e-commerce transactions, International Review of Law Computers and Technology, 21(3), 315-333.

[8]Christopher M., Lynette R.(2014).The supply chain becomes the demand chain, Journal of Business Logistics, 35(1), 29-35.