

Research on Supply Chain Financial Model from the Perspective of Industrial Internet

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Abstract: With the development of the Internet and a new round of industrial revolution, people's attention to the new model of "Internet +" has rapidly increased. Compared with the traditional model, the "Internet+" has made great breakthroughs in efficiency, cost and channel construction. This paper analyzes the concept and development of supply chain finance, briefly introduces three models, and proposes measures after evaluation.

1. Introduction

With the continuous deepening of social production methods, market competition has changed from competition among single customers to competition between supply chain and supply chain. The parties within the same supply chain are interdependent, "one glory, one loss and one loss". It is difficult for suppliers in the upstream and middle of the supply chain to obtain financial support from banks through "traditional" credit methods, and the shortage of funds will directly lead to the stagnation of subsequent links and even "broken chains". Therefore, the "supply chain financing" series of financial products came into being.

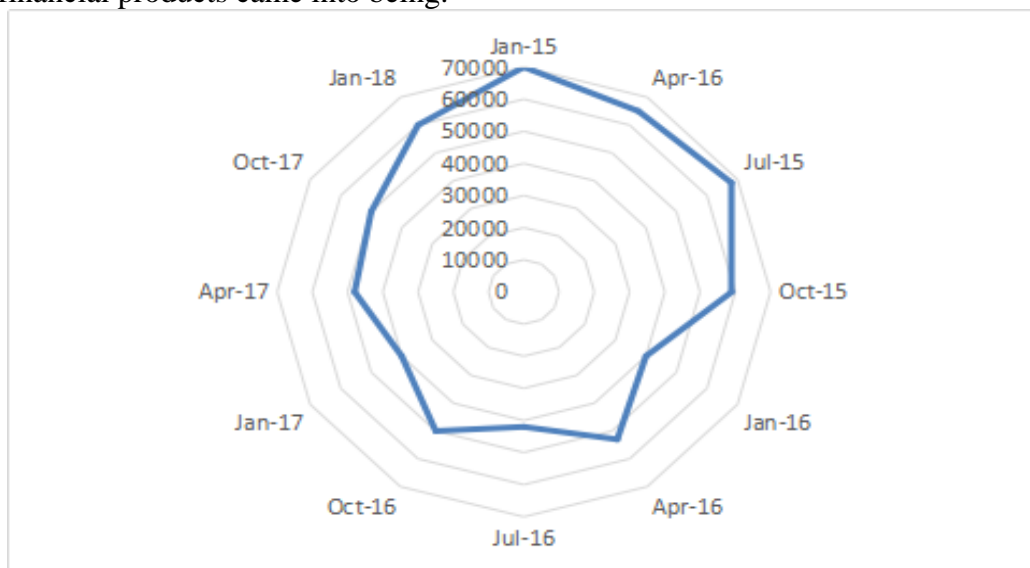


Fig. 1 Investment in the Internet industry

In the Internet era, the development of technologies such as big data, cloud computing, blockchain, and artificial intelligence has made the role and value of data more and more prominent. Internet supply chain finance is the product of traditional supply chain finance interacting and developing together with emerging things such as Internet technology and Internet financial form under the "Internet +" era. Supply chain finance has experienced traditional supply chain finance and Internet supply chain finance. The traditional supply chain finance is "I+N" model, which transfers risk to core enterprises to achieve overall supply chain efficiency improvement and capital mobility. With development, supply chain finance The original chain management developed to the mesh mode and gradually realized onlineization. The Internet supply chain financial model came into being. "N+1+N" became a new model of supply chain finance.

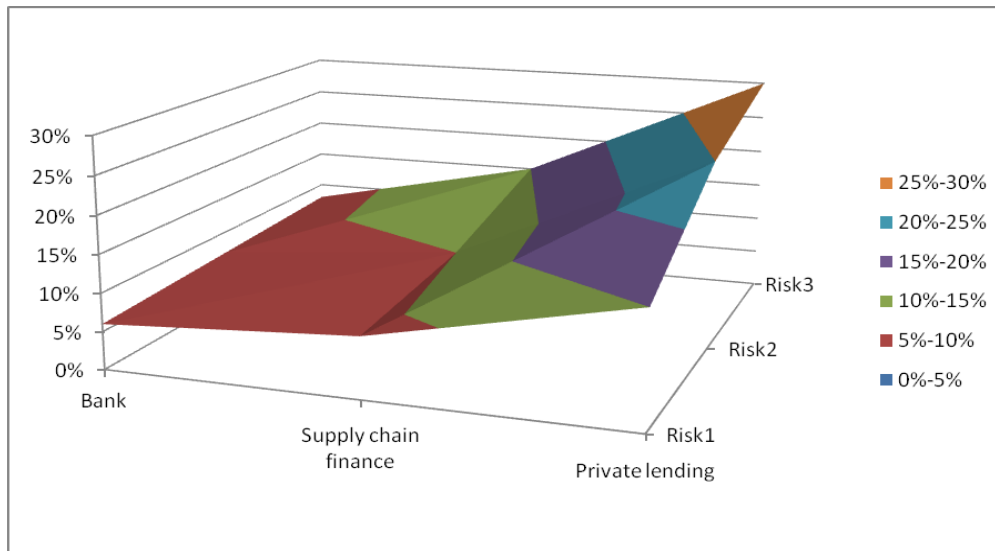


Fig. 2 Different capital party interest rate interval map

The value of supply chain finance also lies in the realization of the four streams of capital flow, information flow, logistics and business flow. For commercial banks, first of all, supply chain finance realizes mutual benefit and win-win between banks and banks. Under the supply chain finance model, banks jump out of the limitations of individual enterprises, stand on the overall and high level of the industrial supply chain, and arrange financing arrangements for all members' enterprises. Credit is provided through the bundle of credits between SMEs and core companies. Second, supply chain finance can reduce the capital consumption of commercial banks. Supply chain finance covers traditional credit business, trade finance, and electronic financial instruments, providing ample room for banks to expand their intermediary business.

2. Supply chain finance and development status

Supply Chain Finance (SCF) is a specialized area of commercial bank credit business (bank level) and a financing channel for enterprises, especially small and medium-sized enterprises (enterprise level). To put it simply, it is a financing model in which banks connect core companies with upstream and downstream enterprises to provide flexible financial products and services.

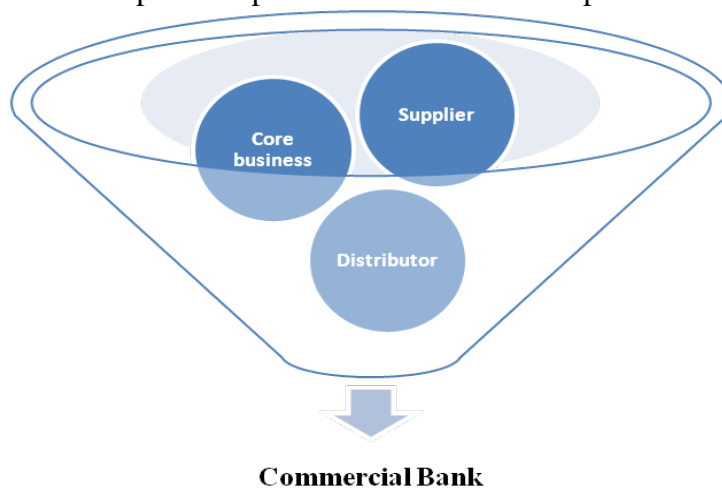


Fig. 3 Relationship between banks and members in the supply chain model

The biggest feature of “supply chain finance” is to provide financial support for the supply chain based on the core enterprise. On the one hand, the funds are effectively injected into the relatively weak upstream and downstream supporting small and medium-sized enterprises to solve the problem of financing difficulties and supply chain imbalances among SMEs. On the other hand, the

integration of bank credit into the purchase and sale of upstream and downstream enterprises, enhance their commercial credit, and promote long-term strategic synergy between SMEs and core enterprises. Under the financing model of “supply chain finance”, once the enterprises in the supply chain get the support of the bank, the “umbilical cord blood” of the capital is injected into the supporting enterprise, which means that the supply chain is entered, so that the entire “chain” can be activated. The operation; and with the support of bank credit, it has also won more business opportunities for SMEs.

At present, many banks continue to introduce products of supply chain finance to meet the different needs of upstream and downstream enterprises in the supply chain. In order to make the whole supply chain produce the greatest effect, any enterprise and bank involved in supply chain finance must look at all aspects of the supply chain from a global perspective, conduct a holistic analysis, and integrate the characteristics of each enterprise. Together, promote the effective development of the entire chain.

Supply chain finance has achieved three-way integration of “logistics”, “funds flow” and “information flow”. In the supply chain, logistics, capital flow, and information flow coexist. The combination of information flow and capital flow will better support and strengthen the goods and services between upstream and downstream enterprises in the supply chain. Traditionally, companies will focus on accelerating the flow of logistics in the supply chain, but the flow of capital flows is equally important to companies. With the development of market globalization and the emerging trade opportunities in emerging markets, how to manage the capital flow of enterprises has become a topic of concern for enterprises to participate in the supply chain.

The main players in the supply chain finance industry include banks, industry leaders, supply chain companies or foreign trade integrated service platforms, B2B platforms, logistics companies, financial information service platforms, financial technology companies and other enterprises. Among them, the supply chain company / foreign trade integrated service platform, B2B platform class accounted for about 45%.

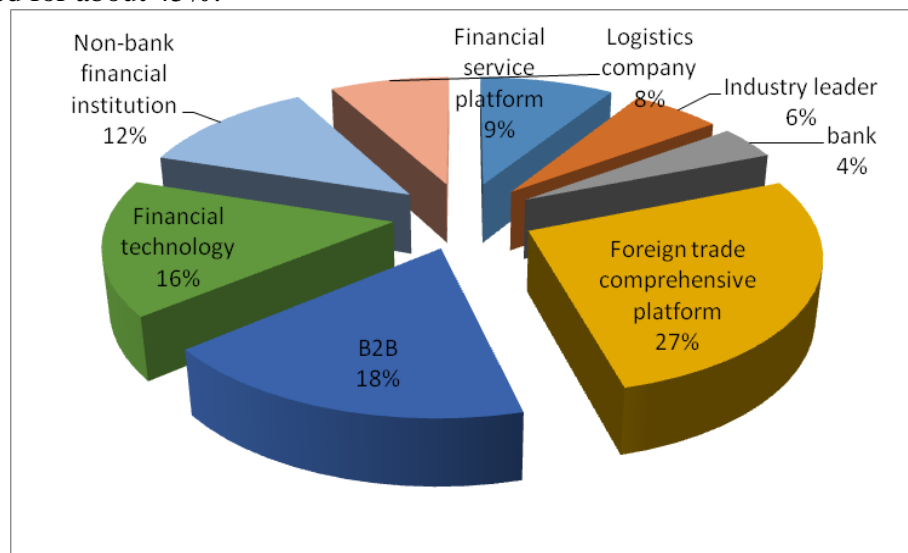


Fig. 4 Supply chain service subject

The B2B platform is mainly embodied in two service modes: one is the B2B platform cut from the transaction side, providing online transactions, encouraging and facilitating online transactions of customers. The other is B2B, which is cut from the server to provide customers with a series of services from source sourcing, warehousing, logistics and information management. With the practice of various types of entities, the verticalization trend of supply chain finance has become more apparent. China's supply chain financial services are concentrated in industries such as computer communications, power equipment, automobiles, chemicals, coal, steel, pharmaceuticals, and non-ferrous metals.

3. Several models

The concept of supply chain finance was first proposed by Shenzhen Development Bank in 2003, namely the “1+N” model: “1” stands for core enterprises and “N” stands for many small and medium enterprises around core enterprises. Financial institutions rely on the “core enterprise” in the supply chain for credit support, and provide financing solutions for small and medium-sized enterprises such as upstream and downstream suppliers and distributors of core enterprises. In essence, supply chain finance reflects the credit spillovers of core enterprises, which has expanded the scope and depth of credit institutions in financial institutions.

The mainstream model of China's supply chain finance is the pledge of movable property and asset-based inventory financing, in which accounts receivable is the mainstream mode of supply chain financing. Advance financing refers to the advancement financing needs of downstream purchasers to purchase materials from upstream core enterprises. Accounts receivable financing for SMEs will generally face the receivables of core large enterprises to financial institutions to apply for loans. Deposit and loan financing refers to financing companies that use their own deposits and loans as quality materials, and pledged them to third-party logistics companies. After evaluation and certification, financial institutions issue credit loans to credit demanders.

Table 1 Supply Chain Financial Model Differences Summary

Financing model	Pledge	Third party participation	The location of financing companies in the supply chain	Financing enterprise production cycle
Bonded warehouse	Proposed purchase of goods	Warehousing regulator	Downstream distributor	Raw materials to be purchased
Financial warehouse	Deposit	Third-party logistics company	——	——
Accounts receivable financing	Claim	——	Upstream distributor	Pending payment after delivery

3.1 Accounts Receivable Mode

The accounts receivable financing model essentially pledges the receivables from the supply chain enterprises that have not been received for a certain period of time to the financial institutions, and obtains the funds in the form of transfer of income rights. For most small and micro enterprises, due to weaker bargaining power, they will produce accounts receivable with different maturities, so they have a wider scope of application.

3.2 Rongtong warehouse mode

Through close cooperation between enterprises and banks, Rongtong warehouse can provide comprehensive financial and logistics services for financing enterprises. In the actual operation process, the financing warehouse generally derives two modes. First, the commercial bank grants credit to the logistics enterprise, and the logistics enterprise then lends money to the long-term cooperative enterprise. Second, the logistics enterprise assumes the supervisory responsibility in the process of evaluating the collateral. The bank makes a discount to the relevant enterprise according to the evaluation opinions of the logistics enterprise.

3.3 Confirmation warehouse mode

The confirming warehouse mode refers to the agreement signed by commercial banks, upstream core enterprises, terminal small and micro enterprises and third-party logistics institutions on the premise of the introduction of third-party logistics institutions. Commercial banks issue special acceptance bills for SMEs to pay advance payments. The small and medium-sized enterprises can

withdraw the goods in batches after paying the deposits to the commercial banks on time, and the core enterprises promise to repurchase the pledges when the small and medium-sized enterprises are unable to pay the full amount of the goods, so as to achieve the purpose of leveraged procurement by the small and medium-sized enterprises.

4. Recommended measures

At present, Internet supply chain finance is still in its infancy in China, and there are still many problems to be solved. For some of the problems faced by the six Internet supply chain financial models that appear in practice, China should adopt the following countermeasures to develop Internet supply chain finance.

First, actively develop a diversified Internet supply chain financial model. A number of non-financial institutions such as e-commerce platforms, logistics companies, IT enterprises, and traditional non-financial institutions are involved in the supply chain finance sector, which is conducive to the competitive development of China's financial industry, accelerate the improvement of China's financial industry market and enable more enterprises and individuals. Enjoy financial services. The second is to strengthen the investment in the construction of information platforms. Increasing platform investment and building an efficient and data-rich security platform are the infrastructure conditions for developing Internet supply chain finance.

The third is to strengthen risk control capabilities. Professional financial industry talents and legal consultants should be hired to give professional advice, strengthen risk awareness and develop strict risk control measures. It is necessary to have an in-depth understanding of industrial and financial planning and rational distribution of product lines in countries and regions, and focus on technological R&D and investment project construction. The fourth is to improve relevant laws and regulations. It is necessary to improve relevant laws and regulations in a timely manner and clarify the main body of supervision to ensure the development of the Internet supply chain financial industry in a healthy institutional policy environment.

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