

# Research and Development of Financial Innovation Model of Internet Supply Chain

Liuyang Zhang

Henan Polytechnic University College of Business Administration, China

**Abstract:** In the context of the rapid development of the Internet, China's supply chain finance business has been well improved, both in terms of technology and efficiency. The development of contemporary new supply chain finance is still relatively good, which is mainly due to the development of financial technology, the problem of information asymmetry has been effectively improved by financial technology, and the financing efficiency has been greatly improved. This paper analyzes JD.com's Internet supply chain finance and gives a series of suggestions for its development, which provides a certain reference for promoting the future development and improvement of China's Internet supply chain finance.

**Keywords:** Supply chain finance, Internet supply chain, Financial business model, Supply chain finance development.

## 1. Introduction

Supply chain finance, in its essence is based on the entire industrial chain of a financing, this financing method is related to reputation, in the entire supply chain can support the core company's business credit, so as to more effectively supervise the core company and downstream companies of the operation and business information, to the entire supply chain of companies to provide relevant business, the supply chain of companies in all aspects of the operating efficiency can be improved, especially capital efficiency, and for commercial banks and other institutions, can also profit. This means that supply chain finance brings multiple benefits<sup>[1-2]</sup>.

With the rapid development of Internet finance, traditional industries are also facing fierce impact and penetration. This paper takes the business process of supply chain finance and Internet financial products as the starting point, and discusses the collaborative innovation of Internet finance and supply chain finance in combination with the innovation of Internet finance and supply chain finance. With the rapid development of Internet finance, traditional financial institutions are in the midst of unprecedented impact and deep integration<sup>[3]</sup>. At present, China's economy is also transforming and upgrading under the condition of rapid development, and the scale of China's supply chain finance is also growing, and the traditional supply chain finance can no longer meet the needs of market financing. With the addition of the Internet, supply chain finance has ushered in new opportunities for development, the development of big data technology, information technology and the Internet of Things, the operation mode of supply chain finance has changed, which has greatly improved the service efficiency of finance. However, at this stage, Internet supply chain finance needs to be further improved and improved, and there are many problems to be solved in the development of the industry, and the overall environment is still in the construction stage, which is not completely finalized, and there are many constraints and risks, but this does not negate the necessity and development prospects of its development<sup>[4-5]</sup>. With the development of Internet finance, more Internet financial products have been derived, which has had a great impact and depth on traditional industries, and how to integrate Internet supply chain finance to achieve continuous optimization and

upgrading of supply chain finance has become a hot spot in current research.

## 2. Supply Chain Finance Analysis

In China, the development of supply chain finance business has transformed from logistics financing to supply chain finance. Due to the financing problems of many small and medium-sized enterprises in China, logistics finance has been well solved, after more than ten years of development, it has formed a warehouse receipt pledge, buyer's credit, credit financing, advance - collection of payment, prepayment, alternative procurement and other business models. With the development of China's logistics finance business, some defects of logistics finance have gradually been exposed. In order to solve the logistics financing problem of small and medium-sized enterprises in China and find a low-cost and efficient financing method, China's supply chain finance business has developed rapidly, and most of the current domestic financial institutions provide supply chain financial services from the downstream and upstream of the supply chain<sup>[6]</sup>. On this basis, there are four main products for the supply chain: the standard model of bills before goods, the guarantee model before the bid, the domestic letter of credit model and the bill discounting model. Supply chain finance includes bill discounting and commercial bill discounting. The development of supply chain finance has further broadened the financing channels of small and medium-sized enterprises in China and solved the defects of logistics finance based on inventory and receivables. Supply chain finance is based on its core enterprises and provides financing support for them.

## 3. Networked Financial Analysis

With the continuous development of Internet technology, the use of mobile terminals is becoming more and more extensive, and Internet financial services have also developed rapidly. As an emerging financial organization, supply chain finance is gradually penetrating into all walks of life, which has an important impact on China's enterprises and financial industry. Internet financing is the most representative type of Internet finance: third-party payment and crowdfunding financing.

### 3.1. Third-Party Payments

As a new form of Internet payment, Alipay occupies a pivotal position in China's current financial payment system. The traditional third-party payment business process is as follows: (1) the buyer and seller negotiate and finally close the deal; (2) to a third-party payment company; (3) send the goods to the buyer; (4) the buyer confirms receipt of payment from a third party; (5) After the buyer confirms receipt of the goods, the transaction is closed by a third-party payment company that transfers money to the seller. In the Internet era, third-party payment products are also developing rapidly, including online payment, mobile payment, POS payment, etc. Expanded payment channels. Third-party payments are essentially a credit guarantee that establishes a bridging account for untrusted buyers and sellers, thus achieving a controlled freezing of funds. Third-party payment adopts the method of "first issue and pay later", which effectively solves the problems existing in Internet payment: due to the huge size of commercial banks, it is inconvenient to pay small amounts on the Internet; At the same time, it can also effectively reduce the risk of fraud in Internet transactions, protect the legitimate rights and interests of consumers, and promote the rapid development of e-commerce.

### 3.2. Crowdfunding Financing

Crowdfunding refers to the act of raising money for another person or institution on the Internet. The initiator can use the Internet to promote the project, and the investor can also invest in the initiator's project, so as to obtain investment returns. In 2005, crowdfunding websites appeared in the United States, and in 2009, Kickstarter introduced crowdfunding to the public eye. In 2013, "crowdfunding" models emerged in China, such as "Angel Exchange". The crowdfunding platform is the key to crowdfunding, and its core lies in the crowdfunding platform on the Internet. Public investors can obtain financing information through the Internet crowdfunding platform; The investor chooses an investment project and signs a contract with the financing platform and the financing company, and the funds of the investors of banks and financial institutions will be transferred to the financier in a certain proportion when the financing plan is completed, and if the financier fails to achieve the agreed purpose, then the investor's funds will be returned. As the supervision agency of the project, the financing platform will make appropriate investments in the project after the financing project is completed, and feedback the implementation and effect of the project to the crowdfunding platform.

## 4. Model Innovation of Internet Supply Chain Finance

However, due to the relatively lagging development of supply chain finance, the traditional supply chain finance business is faced with complex business processes, complex procedures, high costs and high thresholds. With the rapid development of Internet technology, traditional supply chain management is facing huge challenges, and the innovation of supply chain financial services is an effective way to integrate.

### 4.1. Two modes of Internet supply chain financial innovation

Internet supply chain finance can make full use of the characteristics of the Internet to carry out product innovation,

it is the use of big data, cloud computing, search engines and other technologies to achieve the standardization of the information flow and capital flow of enterprises, so as to establish a continuous and dynamic data support decision-making system, improve a set of effective risk management system. Secondly, in terms of settlement mode, Internet wealth management products mainly use Internet online payment to realize the liquidation of supply chain financial assets. In supply chain finance, the integration of resources in the supply chain, enterprises can use advanced Internet technology to release and match business information, and realize the combination and innovation of Internet finance and supply chain finance.

### 4.2. Online supply chain finance model

In the face of the continuous impact and penetration of the Internet, traditional commercial banks are constantly adapting to this change, innovating in financial products, and constantly strengthening cooperation with third-party companies. Through financial services for upstream and downstream enterprises in the supply chain, it can greatly accelerate the speed of their business, reduce capital costs, and improve customer experience. Through the interconnection with supply chain finance, its operating costs can be greatly reduced, thereby further reducing its financing pressure and raising its financing threshold. Supply chain finance is to solve the financing difficulties of small and medium-sized enterprises in China, and the vast majority of supply chain finance are small and medium-sized enterprises, and there is a scattered phenomenon. The emergence of Internet supply chain finance can effectively solve this problem, through Internet supply chain financial services, it can greatly reduce the processing costs of scattered orders, greatly increase the financial support of financial institutions, improve the success rate of financing for small and medium-sized enterprises, improve the business scale of banks, and achieve a win-win effect.

## 5. Problems in Supply Chain Finance in The Context of "Internet +".

### 5.1. Supply chain management is immature

Both sides of the financing company attach great importance to supply chain finance risks. Based on the supply chain financial system, the framework of financing logic is constructed, in which supply chain financial risk is the main body of the logical framework. In the optimization of financing service objectives, the research on supply chain financial risks will play an important role. At present, the supply chain often lacks effective incentives for core enterprise credit and lacks a sense of belonging to enterprises at the center of the supply chain. Therefore, the control of its core enterprises is naturally not strong. This makes it difficult for banks to establish a credit effect based on the supply chain, which makes the supply chain of banks very narrow, and the supply chain finance of commercial banks can only be carried out in a few areas, but due to the competition of upstream and downstream enterprises, it leads to the imbalance of funds in the supply chain, which leads to the overall loss of the supply chain, and then damages the interests of all relevant parties. Domestic banks are only involved in domestic supply chain finance business, while multinational companies have many domestic suppliers and distributors, so an effective solution to the financing problem will bring them huge benefits.

## 5.2. The risk control system is incomplete

Supply chain finance plays an increasingly important role in today's economic development, and is an important means to achieve enterprise financing and strengthen supply chain collaboration. Under this model, financial institutions provide professional financial services to enterprises and individuals involved in the supply chain through the supervision and control of capital and credit risks in all links of the supply chain, so as to promote the rapid growth of economic development. However, from the perspective of business operation, most banks have certain problems in realizing market operation, resulting in the lack of a perfect risk control system. Many banks lack a global perspective on risks in supply chain finance, cannot effectively perceive and identify risks, lack a perfect risk control system, and do not have guarantees agreed by all parties, which can easily lead to the aggravation of transaction risks and operational risks. In addition, in supply chain finance, the credit evaluation system is also particularly important in terms of risk control, but in reality, many banks have not established a special credit evaluation system, which increases the risk of financial institutions.

## 5.3. Technical support is relatively weak

At present, most domestic banks still rely on manual services, resulting in a low degree of automation and low efficiency. On the one hand, the risk of human error is very high, which can easily lead to incorrect operation, which will have a negative impact on the trust of banks and customers. On the other hand, given the risky nature of the financial industry, this manual mode of operation is prone to security problems, such as information leakage, theft, etc. In addition, due to the backward level of information construction of banks, especially the outdated information management system, there is a lack of effective information storage, retrieval, analysis and processing tools. The bank's information system has not yet fully realized database integration, unable to achieve information sharing and resource sharing, and unable to meet the needs of customers and changes in the market. As a result, it is difficult for banks to make timely and effective decisions and adjustments in terms of business operations, risk control, asset and liability management, and even human resource management.

# 6. Suggestions for Optimizing the Financial Risk Management of China's Supply Chain

## 6.1. Improve the risk management system

Supply chain finance has great information integration and industry relevance, so it is inseparable from data. By building a huge data network, all supply chain key vocabulary, sales data, procurement data, capital flow, goods flow and other multi-dimensional information can be standardized, centrally managed and tracked, so as to achieve one-stop, intelligent and efficient supply chain financial services. In order to realize the data network of supply chain finance, data analysis and data mining are very important. First of all, for the sales data, financial data, procurement data and other information of each enterprise, it is necessary to use a unified format and standard to collect and integrate. Then, multi-dimensional analysis and processing are carried out through data mining technology to dig out the potential and valuable information,

such as potential customer information, credit rating information, risk early warning of changes in key nodes of the supply chain, etc. Through this information, financial institutions can better understand the actual operating conditions and credit risks of each enterprise in the supply chain, so as to formulate more targeted and effective capital and credit risk management plans.

## 6.2. Optimize the credit evaluation system

Establish a stable and credible credit evaluation system to measure a company's credit status and loan repayment ability, including historical transactions and non-performing loans, etc., and then the creditworthiness of the company itself, the company has a good business model and excellent talent team. So as to effectively improve the company's credit solvency. Establishing a stable and reliable credit evaluation system is an important part of supply chain financing. At the same time, credit rating agencies must remain independent of the system as a whole. In addition, various credit lines, incentives, direct incentives and other incentive mechanisms can be set up to encourage enterprises to provide true, comprehensive and timely data, strengthen exchanges and training with enterprises, and encourage upstream suppliers to spontaneously form a "united front".

## 6.3. Resource integration

Promote resource integration and share risks with banks. At present, the e-commerce supply chain financing model dominated by e-commerce, and logistics companies and banks only serve as its auxiliary support, such a collaborative model restricts the development of its operation to a large extent and cannot effectively play its role. Therefore, in this case, the online trading platform must cooperate closely with major logistics enterprises and commercial banks to improve the existing cooperation model and form a mutually beneficial relationship. When formulating the relevant system, it is necessary to make it clear that the interests and risks are shared together. The collaboration between e-commerce and logistics companies and commercial banks can be carried out from the following three aspects: First, information sharing. Through the Internet, banks, logistics companies, and e-commerce platforms, they share the transaction information, logistics information, and credit information of small and medium-sized enterprises they own, so as to help them accurately determine the debt status of these companies. The second is the sharing of credit rating systems, which combines the credit rating systems of e-commerce and other financial enterprises. According to the comprehensive evaluation system, the credit evaluation of small and medium-sized enterprises was carried out. The third is the trading platform, which is jointly operated by commercial banks and e-commerce, which can help enterprises to withdraw funds automatically, shorten the time limit of loans, and thus improve the efficiency of work.

# 7. Conclusion

To sum up, as far as the development of Internet supply chain finance is concerned, the Internet has brought convenience in transactions, information, capital, etc., so Internet companies can integrate the upstream and downstream of the entire supply chain through their own big data advantages to adapt to the new environment. Supply chain financial risks exist objectively. Small and medium-sized enterprises cannot effectively grasp the authentic and

reliable raw data of suppliers, and face credit risk, liquidity risk and operational risk. In order to effectively control risks, it is necessary to establish and improve corresponding laws and regulations, and adopt coercive measures when necessary. It is necessary to actively guide small and medium-sized enterprises to enter the track of benign development, adopt a variety of measures, reduce the occurrence of risks, and ensure their operating efficiency.

## References

- [1] Gong Lei. Research on the innovation of supply chain finance model under "Internet +"[J].Fortune Life,2020 (20):7- 8.
- [2] Ren Xiaozhu. Research on the development effect of Internet supply chain finance empowering China's trade circulation industry[J].Journal of Business Economics,2020(19):159-162.
- [3] Cao Shuai, Zhang Xin. On the Internet-based supply chain finance innovation model[J].Shangxun, 2020(01):84- 85.
- [4] Yang Zhihua. Research on the innovation mode of supply chain finance based on the Internet[J].Logistics Science and Technology, 2019,42(01):159- 161.
- [5] Xu Pengjie, Wu Shenghan. Research on the innovation and development of supply chain finance model based on the background of "Internet +"[J].Economic System Reform, 2018 (05): 133-138.
- [6] Zhu Mengjin. Research on supply chain financial risk management led by industrial Internet platform[J].New Finance, 2020(9):53-57.