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Research on Operation Mode and Risk Prevention of B2B Supply Chain Finance

(Full Paper)

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ABSTRACT

B2B supply chain finance is the business innovation of e-commerce enterprises in the field of transforming supply chain finance. E-commerce platform, supply chain enterprises and service providers are important participants in B2B supply chain finance. Four flow coordination, credit enhancement, technology empowerment and win-win situation are the key elements of B2B supply chain finance. In view of the external environmental risks faced by the B2B supply chain finance operation at this stage and the structural risks, fund-side risks, technical risks and risks of collateral generated within the system, we put forward the formulation of external environmental risk early warning and response mechanism, the improvement of relevant legal system design, the scientific design of business processes, the strengthening of platform financial management, the improvement of technical application level and collateral supervision management system and other governance strategies in this paper.

Keywords: B2B supply chain finance, credit enhancement, risk prevention and control.

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INTRODUCTION

In 2018, there were 688 e-commerce investment and financing events in China. Among them, there are 135 B2B e-commerce events (including FMCG e-commerce, industrial e-commerce, steel e-commerce, plastic e-commerce, etc.), accounting for 20%; the investment and financing amount was 2196.92 million yuan, including 30.04 billion B2B e-commerce events, accounting for 14%. In recent years, with the development of Internet and big data technologies, many B2B e-commerce platforms in China have begun to transform the supply chain finance business and have driven a large number of enterprises online (Dou & Zheng, 2019). B2B supply chain finance is a business innovation of e-commerce platform based on Internet of Things, big data, blockchain and other new technologies to carry out supply chain finance. It breaks through the weak credit of the financing party by virtue of the advantage resources gathered by the e-commerce platform and provides credit and financing services for the enterprises with insufficient funds in the platform.

B2B supply chain financing is essentially a category of Internet supply chain finance. It is a new field for e-commerce enterprises to innovate and develop financial business. According to the different functions of e-commerce enterprises in the supply chain finance platform, B2B supply chain finance operation model can be divided into service type and self-management model, as shown in Figure 1. In the service model, e-commerce enterprises are responsible for the construction of the trading platform. According to the risk control standards and pricing of external financial institutions, they push the financing intention of the platform enterprises, and they do not bear the financing risks related to lending. In the self-management model, e-commerce enterprises play a dual role of platform builder and financial institutions, independently develop platform financing products, determine risk control rules, and bear the corresponding lending risk. Obviously, in the service model, e-commerce enterprises cannot really integrate into the supply chain industry ecology, and the credit certification and risk control system are difficult to be guaranteed. In the self-management model, e-commerce enterprises participate in and monitor the entire process from the selection of suppliers to the signing of commodity warranty, delivery and capital settlement with suppliers, so the self-management model of B2B supply chain finance is more consistent with the requirements of business ecology. In this paper, taking the self-management model of B2B supply chain finance as the research object, we analyze the participants and function design of B2B supply chain finance, discuss the key elements of the sound operation of B2B supply chain finance, and put forward corresponding prevention strategies for the possible risk problems in the operation.

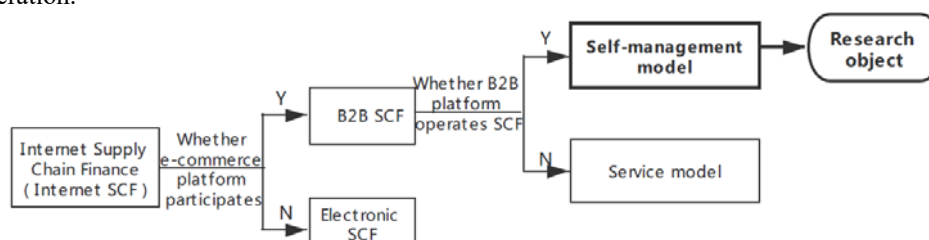


Figure 1: Classification of supply chain finance

OPERATIONAL DESIGN OF B2B SUPPLY CHAIN FINANCE

Under B2B supply chain finance, e-commerce enterprises rely on the new generation of IT technology to build a new supply chain ecosystem, and use their own good credit utilization advantages to introduce credit from banks and other financial institutions, and provide financing services to small and medium-sized micro node enterprises such as suppliers and distributors operating in the platform through the corresponding credit system and risk assessment system. The specialization and platform of participants are the development direction of supply chain finance (Song, 2019). Due to the penetration and utilization of Internet technology, the participants in the B2B supply chain finance system have been greatly expanded. As shown in Figure 2, the upstream suppliers and downstream distributors of the supply chain are no longer the traditional simple chain relationships, but all form a complex cluster network of interaction; the supporters of supply chain finance activities such as governments, financial institutions and logistics organizations also present comprehensive and complex errors. The benefit related relationship, and thus derived more service channels, and these functional relationships can also provide reliable mutual confirmation for the operation of B2B supply chain finance, greatly reducing the operational risk of the platform business. In the complex network system structure, e-commerce enterprise is the neural hub. Through the Internet platform, we can master the business flow, capital flow, logistics and information flow of supply chain operation, be familiar with the operation key and pain point of the whole supply chain system, and timely provide the platform enterprise with corresponding supporting services including financing, so that all kinds of economic entities in the system structure can focus on development. Its core competitiveness, and then improve the overall competitive advantage of the supply chain network system.

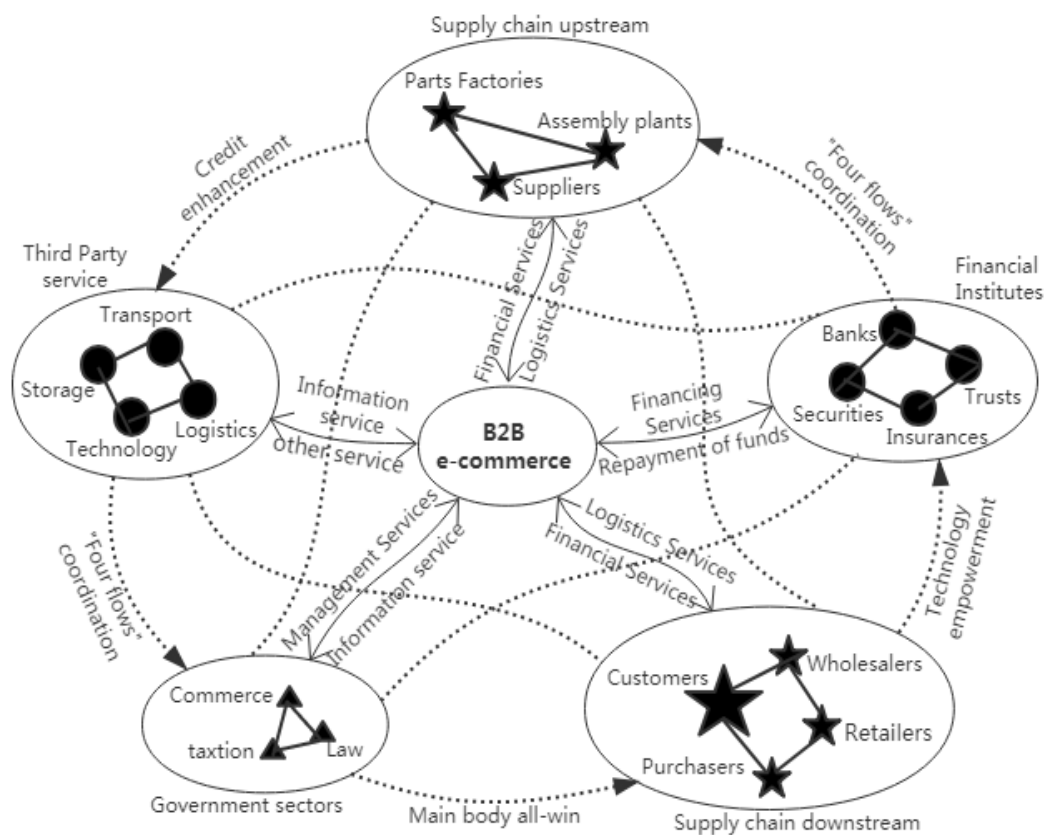


Figure 2: Platform of B2B supply chain finance

Participants And Functions

B2B e-commerce enterprise

B2B e-commerce enterprises are the nerve center of supply chain finance. It masters the business flow, capital flow, information flow and logistics (hereinafter referred to as "four flows") of the entire platform operation. The e-commerce platform is familiar with the key operations and pain points of the entire supply chain system, and leads the network structure, transaction process and element management of the supply chain finance ecosystem. Its main function is to establish information bridges for various types of participants, and provide fund matching, credit rating, credit guarantee, payment and settlement and other financial services for node companies in the platform. In addition, B2B e-commerce companies will also rely on their strong business strength and good reputation to introduce government, asset evaluation, logistics organization and other supporters of supply chain finance activities to the platform to provide comprehensive integrated services for SMEs in the supply chain. The B2B e-commerce platform has established a fair and just trading place for the service group, and also created conditions for strategic cooperation of mutual reciprocity between enterprises. Its profit comes from the reduction of information costs, the simplification of work processes, the saving of transaction costs, and the Benefits of value chain integration.

Supply chain enterprises

Supply chain enterprises refer to the upstream and downstream enterprises that trade on the B2B platform, and they are also the main objects of supply chain finance services. Under the service support of the platform, supply chain enterprises have formed several horizontal cluster chains and vertical industrial chains. Horizontal cluster chain and vertical industrial chain form an organic coupling between industrial cluster and supply chain. There are many parallel single chain supply chains. These single chains not only include the cooperation between upstream and downstream enterprises, but also the coordination and cooperation between single chains (Liu, Guo, & Li, 2011). It should be noted that in the horizontal cluster chain operation process, e-commerce companies need to innovate the management of the cluster network system, build a common vision for the cluster, enhance the dependence and stickiness of the cluster members on the e-commerce platform, and manage suppliers or distributors. The operation process of each horizontal cluster chain enables each cluster to form an orderly industrial division of labor in the platform. In the vertical industrial chain operation process, e-commerce companies need to manage a chain relationship between upstream suppliers and downstream distributors by building a series of contract mechanisms. First of all, it is necessary to conduct on-site inspections of the products of suppliers cooperating in the e-commerce platform, ensure the quality of the platform products from the source, and sign contracts for many links such as supply, pricing, settlement, and delivery; second, use the O2O business model to open The distribution channel ensures that the mall and the O2O showroom products are seamlessly connected, increasing the customer experience and purchasing convenience, and increasing the sales success rate. Promote the efficient operation of vertical value chains through highly cooperative joint actions of upstream and downstream enterprises.

Service provider

Service provider refers to the organization that provides capital, logistics, value evaluation and other services for supply chain enterprises on the platform. Among them, financial institutions provide financial products or services for enterprises, formulate finance service business models and programs; logistics enterprises provide comprehensive third-party logistics services such as custody and supervision of pledged goods, warehousing, transportation, etc., and provide help for financial institutions to more easily grasp various transactions of enterprises. The asset evaluation institution is responsible for the value evaluation of the inventory, intellectual property, financial products and other pledges on the platform. Government departments provide various services for platform enterprises, such as industry and commerce, taxation, customs, etc. These entities together form a platform service chain to provide various services for the supply chain enterprises, which is conducive to the enterprises to focus on their core competitiveness and improve the overall competitive advantage of the supply chain. Service providers form a complex network of service relationships through the platform's sharing mechanism. The service effectiveness of the service chain to supply chain node companies reflects the platform's leading and coordination capabilities to a certain extent. The interaction of horizontal cluster chain, vertical industry chain and service chain has promoted the symbiotic development of the supply chain finance ecosystem and opened up a broad space for B2B supply chain finance business.

Key Elements Of Healthy Operation

"Four flows" coordination

Supply chain finance is based on the supply chain management activities. In the operation of the supply chain, it takes advantage of the overall consideration of the "four flows" of the supply chain (Song & Yang, 2018). The financing organizer provides a series of comprehensive financial services to fund demanders through special financing designs. "Four flows" run through every transaction link of B2B supply chain finance platform. The disordered coordination of "four flows" will lead to the failure of platform transaction design and bring huge risks to supply chain finance. Therefore, timely logistics distribution, compliance of business flow transfer, real and smooth information flow and stable matching of capital flow are important prerequisites for the sound operation of B2B supply chain finance. E-commerce enterprises should actively use block chain, big data, Internet of Things and other new technologies to realize the organic coordination of the "four flows" of the supply chain and create value for the participants of the supply chain.

Credit enhancement

The credit enhancement under the traditional supply chain finance is a one-to-one chain transmission with the help of the good credit resources of the core enterprises to achieve a breakthrough in the weak credit of the small and medium-sized enterprises. The credit of the core enterprises can only be transferred to the upstream and downstream enterprises that directly trade with them. The constraint of credit penetration makes the multi-level SMEs at the long end of the supply chain unable to enjoy the real supply chain finance services (Ye, 2019) Under the B2B supply chain finance mode, through the application of digital technology, the credit advantages of e-commerce platform and core enterprises can be transmitted to several levels of small and medium-sized enterprises that have transactions on the platform. This platform based on credit transmission mode enhances the credit of more financing enterprises and effectively expands the service objects of B2B supply chain finance. In addition, B2B supply chain finance relies on the supply chain ecosystem to achieve a high degree of integration of the three major elements of "e-commerce + supply chain + finance". It can not only play a role in improving the credit of loan companies from all aspects of the supply chain, but also the availability, convenience, and precision of resources flexibly meet the loan quota and financing term requirements of underfunded enterprises.

Technology empowerment

The value of B2B e-commerce platform is mainly reflected in the integration of business transaction information for financial institutions, the establishment of a more accurate and efficient information sharing platform, the optimization of the platform

itself and the excavation of better customer service (Li & Ma, 2011). The application of blockchain technology can reduce the financial cost and risk of supply chain, expand the service of supply chain finance (Zheng, 2019), and the Internet of things technology can prevent the risk of repeated pledge of movable property (Jiang & Wang, 2019). Therefore, B2B e-commerce platform should pay attention to the penetration application of technology, use digital technology to efficiently collect, analyze and process data and information, establish an open and complete service platform, and ensure a higher supply chain system efficiency, high performance, high expansion and high security. Through the technical cooperation among the main bodies, we can solve the problem of capital shortage of financing enterprises, develop more new customers for the platform, and improve new profit sources and market segments.

Win-win for participants

As a typical benefit-driven virtual organization model, common interests of supply chain finance mainly due to the reduction of the supply chain's comprehensive financial costs and the stability of supply chain operations brought about by liquidity supplements, and new business profits derived from it (Dou, Bai, & Wu, 2014). Win-win for participants is the ultimate goal of B2B supply chain finance. To achieve a win-win situation for the main body, we need to rely on the coordination of "four flows", credit promotion and technology empowerment. We need to overcome the possible low efficiency caused by the imbalance of power allocation, guard against various opportunism and moral risks, and put an end to the unfair distribution of the main body's interests. Therefore, with the support of information technology, the participants of supply chain must build a high-level information sharing center, a cooperative culture with the highest reputation and a fair and just benefit distribution mechanism to achieve a win-win situation for the participants, and finally promote the sound cycle of supply chain finance ecology.

RISK ANALYSIS OF B2B SUPPLY CHAIN FINANCE

In theory, B2B supply chain finance will achieve win-win cooperation between e-commerce platform and all participants by means of "four flows" coordination, credit enhancement and technology empowerment. However, because the development of B2B supply chain finance in China is still in its infancy, there are some constraints in practice, which increase its operational risk objectively. B2B supply chain finance is a highly comprehensive and high-tech financing mode. It pays more attention to the network structure of the supply chain organization, the supply chain transaction process and the management of the supply chain finance elements. It requires online, batch, efficient and timely credit and financial business processing. Therefore, it puts forward very high requirements for the risk control level of e-commerce platform. Supply chain finance operation risk includes external environment risk, supply chain network risk and supply chain enterprise risk (Jüttner, Peck, & Christopher, 2003).

Exogenous Risk

Exogenous risk, also known as environmental risk, refers to the risk that comes from the outside of the platform and cannot be controlled and managed by the supply chain finance platform, including the risk caused by irresistible factors such as macroeconomic environment, industry environment, legal environment, etc.

Economic and environmental risks

The factors of economic environment mainly include cyclical fluctuation and policy adjustment. The instability of economic activities will affect the survival and development of industry, and then threaten the stability and security of supply chain finance ecology. For example, the decline of steel trade market in the past few years has brought adverse effects on the industry's supply chain finance activities. Most of the service subjects of B2B supply chain finance are small and medium-sized enterprises, whose risk resistance ability is weak, and their profitability tends to fluctuate with the change of macroeconomic environment. At the same time, the government's restrictive policies on the industry will also directly affect the profitability of the industry, further affect the loan direction of banks, and bring credit constraints to platform enterprises.

Industry environmental risk

The development stage of the industry, the competitiveness of the industry and the external support to the industry will affect the decision-making of the B2B supply chain finance participants. For example, industries such as artificial intelligence and new materials are in the early stage of growth, with fast growth speed and large space, but enterprises in this stage of development are prone to face problems such as unstable business conditions and insufficient cash flow; while enterprises in the mature stage, with slow growth speed and small development space, have the advantages of stable business conditions and stable capital flow. Industry competitiveness or competition intensity will also affect the operation and profitability of the industry. There are many competitors in the industry with fierce competition, which means that there are many homogeneous products, such as the Internet, FMCG and other industries. Therefore, B2B supply chain finance business should correctly choose industries with stable environment and avoid industry risks.

Legal environment risk

Legal environment risk is an important aspect that restricts the development of B2B supply chain finance. First of all, China's legislation on future property security is still blank. Most of the B2B supply chain finance models are guaranteed in the form of property option certificate, not real right certificate, but credit guarantee in essence. If one party of the supply chain loses future property due to breach of contract, it will cause credit loss and legal risk (Craighead *et al.*, 2007). Secondly, there is no clear law on B2B supply chain compensation in China. In the field of finance, the transfer and circulation of e-warehouse

receipts are regulated specifically, but in practice, the transfer and circulation of e-warehouse receipts are very frequent and lack of applicable legal basis; in addition, B2B platforms in China rely more on industry autonomy, lack of relevant legal supervision, and the abuse of information by platforms to obtain interests and infringe the rights and interests of other subjects often occur.

Endogenous Risk

Endogenous risk refers to the risk from the enterprise or supply chain network. At present, there are many researches on credit risk and operational risk. Combined with the characteristics of B2B supply chain finance, we mainly focus on structural risk, capital risk, technical risk and pledge risk in this section.

Structural risk

The structural design of supply chain will affect the efficiency and effect of risk management. The number of nodes and connection mode of enterprises in the supply chain may be affected by the decision-making of any node enterprise [8]. Except for a few large-scale e-commerce giants such as Alibaba and Jingdong, most e-commerce platforms do not have supporting warehousing logistics, loose management of cluster chain, industrial chain and service chain, and do not have strong enough control power. The financial risk control of the platform is realized only with the help of big data technology, and the risk control of supply chain network is obviously insufficient. In essence, the supply chain is different from the virtual organization of enterprise management. The limited rationality and potential opportunistic behavior of trading partners increase the complexity of economic activities. The poor spirit of node enterprise contract and the collective collusion of borrowers will lead to supply chain finance risks. Therefore, the common obstacle for e-commerce enterprises to develop supply chain finance is to restrict the risk control ability from structure layer in China.

Fund-side risk

Due to the deterioration of the situation of B2B supply chain finance, the failure of supply chain operation to achieve the expected goal will lead to funding risk, which mainly includes the shortage of sources of fund, the disorder of funding investment and the poor recovery of funding. Under the B2B supply chain finance model, e-commerce platforms dominate financial services, and funds are raised from three sources: one is from the platform's own funds; the other is from commercial banks; the third is from informal financial channels such as P2P companies and private lending funds. Among the above three sources, in addition to the internal funds of e-commerce enterprises, the cost of funds of commercial banks is usually lower than the cost of funds of informal financial channels. However, due to the weak risk control system or the lack of credibility of e-commerce companies, the platform has a very limited amount of funds from formal financial institutions. At present, most of the B2B supply chain finance platforms mainly rely on the platform's own funds, especially in the early stage of the establishment of the platform, banks and other financial institutions have weak willingness to invest in the platform, and the source of funds is limited, which cannot guarantee the fund demand of platform enterprises. In order to meet the business needs, the platform will import funds from non-governmental organizations, but the leverage of such funds is too high, which is easy to cause financial risks. The lack of evaluation and supervision of the platform for enterprises leads to the node enterprises with high risk of capital flow, and the enterprises use loans to invest in projects with high risk. These disordered capital investment problems will bring potential risks to the platform. Finally, the poor operation and lack of credit of the platform enterprises will also lead to the risk of capital recovery, which is the top priority of B2B supply chain finance capital risk prevention.

Technical risks

The operation of B2B supply chain finance needs to rely on the support of new generation technologies such as the Internet of things, cloud computing, blockchain and artificial intelligence. However, at this stage, the application of B2B supply chain finance technology lags behind the market demand, mainly for lack of understanding of technology application, lack of investment in technical facilities, lack of technical human resources, etc. Insufficient application of technology is easy to cause information sharing failure or external attack of platform system, which leads to the security of online transaction settlement and payment. Lack of corresponding technical support or insufficient technical support will lead to failure of business flow, information flow, logistics, and capital flow sharing in the supply chain system structure, making it possible to achieve supplier and logistics through horizontal cluster chain, vertical value chain, and intermediate service chain management. It is difficult to effectively connect the various nodes of merchants, distributors, banks, customs and consumers, making it difficult to extend the management of various functions of a traditional single enterprise to the strategic integration of systems across the entire supply chain. In addition, it is worth noting that the lack of effectiveness of the "four flows and one" is easy to increase the business cost of B2B supply chain finance operations on the one hand, and it is prominently reflected by the increase in information acquisition costs and human resources costs; on the other hand, it is easy to increase Credit risk and information transmission risk of B2B supply chain finance operation. The defects of technology application will also lead to process risks of B2B supply chain finance, including application, review, credit extension and post loan management, such as multiple pledge of inventory in the process of financing application, collusion of both parties in the transaction to defraud loans and other behavioral risks, non-compliance of employee project review exposed in the review stage, hacker attack on electronic orders, inaccurate and overestimated false electronic orders or models occurred in the credit stage Credit line, inaccurate analysis of big data in post loan management stage, failure of Internet of Things monitoring, insufficient application of blockchain and other judgment errors. Technology risk will bring negative impact on the operation effect and efficiency of B2B supply chain finance.

Risk of pledge

When an enterprise borrows money from a bank, if the credit level of the financing enterprise is lower than its borrowing amount, it is necessary to use the pledge as a risk compensation to the bank to increase credit for itself. Movable property or right pledge is an important part of supply chain finance activities, and is applied in many supply chain finance scenarios, such as the supply chain finance model based on advance receipts and the supply chain finance based on inventory pledge. With the innovation and development of supply chain finance, pledges have begun to expand from physical assets to intangible assets. Therefore, collateral risk is an important aspect of risk prevention in the B2B supply chain finance. From the perspective of the types of pledged goods, the high-tech products with fast technology upgrading bring great risks. The agricultural products, fresh and other pledged goods are more vulnerable to loss, poor stability, and greater risk of pledge, which requires the platform to carefully select the pledged goods. The evaluation of collateral value is easily influenced by evaluation methods, quality of evaluators, application of evaluation tools, which are all important sources of collateral risk. For example, improper selection of the subject matter in the market-based asset evaluation, excessive cost components in the cost-based asset evaluation, depreciation of the income-based asset evaluation, and lack of the ability of the appraisers to perform the duties will result in an objective valuation of the pledged property. When the market price of the pledge is unstable or even drops, the value of the pledge will decrease. This situation will directly affect the bank's lending quota and lead to risks such as pledged items.

PREVENTION AND CONTROL STRATEGY OF RISK IN B2B SUPPLY CHAIN FINANCE

In order to promote the efficient landing service of B2B supply chain finance to small and medium-sized enterprises, it is very urgent to put forward the prevention and control strategy for the above built-in and exogenous risks. The idea of risk prevention and control is shown in figure 3.

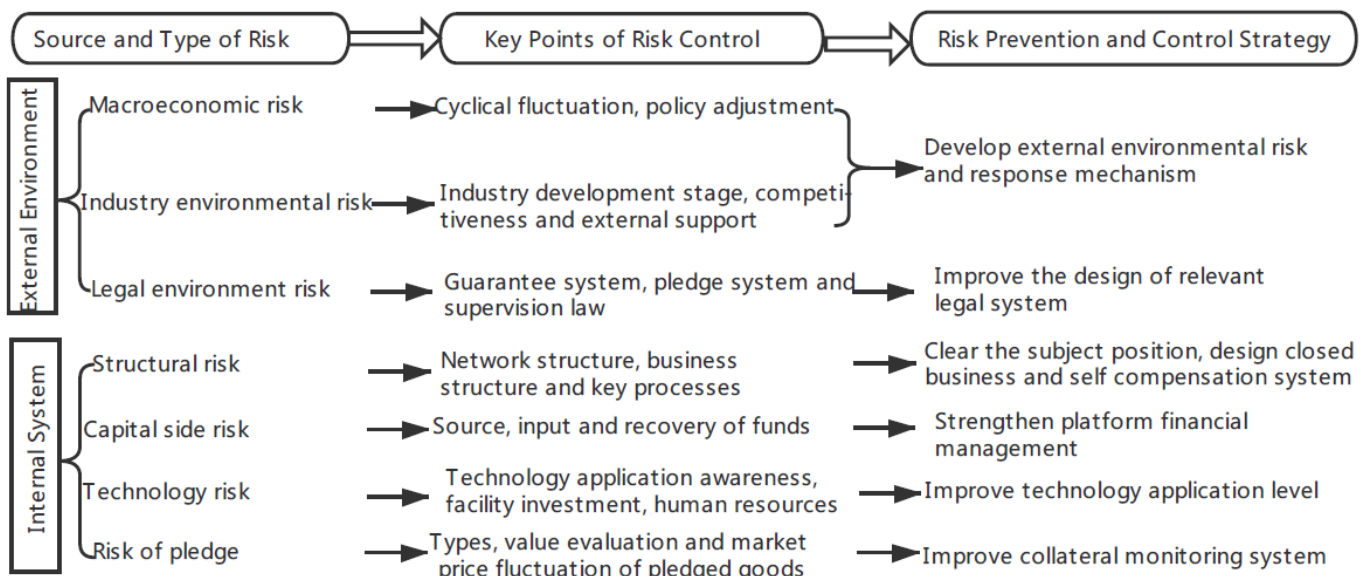


Figure 3: Risk prevention and control of B2B supply chain finance

Exogenous Risk Prevention And Control Strategy

Development of early warning and response mechanism for external environmental risks

The macroeconomic environment comes from the outside of the enterprise, and its changes will affect most industries. Each participant should construct and maintain a high sensitivity to the economic situation and industry situation, attach importance to the staff with strong risk awareness and risk response ability to act as risk early warning work, hire risk research experts to carry out technical analysis and prediction of risk, and arrange risk prevention and risk stop loss in time. At the same time, B2B supply chain finance platform management team should also have good sensitivity and ability to deal with environmental risks from economic and policy aspects, and formulate a good external environmental risk early warning and response mechanism, not only considering the operating conditions of the cooperative enterprises themselves, but also considering the development stage of the industry or whether it is a policy-supported industry, as well as the overall degree of competition of the industry. Make full use of all kinds of information sources to identify the cooperative objects, exclude the enterprises with great environmental risk, especially when the external environmental risk comes, we can take positive and effective response measures to prevent and control the risk loss.

Perfecting the design of relevant legal system

The complexity of B2B supply chain finance platform structure and the diversity of transaction business lead to the uncertainty of its applicable law, so it is necessary to design and perfect the relevant legal system from the top level. First of all, clear e-commerce platform access standards and related legal responsibilities. E-commerce platform is the leading organization of supply chain finance activities, which is directly related to the security and compliance of B2B supply chain finance platform.

It is suggested that the relevant provisions of financial products and services should be added to the early Electronic Commerce Law, and the relevant qualifications and operational requirements of e-commerce enterprises engaged in financial activities should be standardized from a legal point of view. Secondly, we should improve the guarantee laws and regulations. Pledge guarantee is the key to the development of supply chain finance activities. It is suggested that the guarantee Law should be amended and perfected to extend the scope of pledge from early inventory and accounts receivable to intangible assets such as intellectual property rights and carbon rights, so that supply chain finance can be carried out more widely; at the same time, the registration system of chattel pledge should be standardized to prevent the repeated pledge of the same asset to expand the financial risk multiplier, and the order of payment of floating mortgage should be made clear. Third, the establishment of regulatory coordination mechanism. B2B supply chain finance cross-regional, cross-industry characteristics, need different fields of regulatory agencies to coordinate with each other, curb all kinds of violations, and create a good legal environment for B2B supply chain finance.

Internal Risk Prevention And Control Strategy

Scientific design of business process and prevention of network structure risk

The dominant function of e-commerce enterprises determines their dominant position in the system operation, as well as their initiative and convenience in risk management and control at the structure level. Network structure and business structure are two aspects of supply chain finance structure dimension risk management (Song & Yang, 2018). The risk prevention of the network structure layer requires e-commerce enterprises to lay out the network status of the main participants in the supply chain, ensure that the roles of the main players and the division of labor are clear, and form a stable and effective supply chain finance ecosystem. E-commerce enterprises should also reasonably design the business structure, make each business link connect with each other, guard against all kinds of uncertainties and potential risks, and ensure the return of capital in the process of transferring value-added assets. The non-compliance of time and business flow, false information flow or unstable capital flow may lead to the fault and failure of platform transaction process, which brings huge risk to supply chain finance. In order to control the transaction process risk, e-commerce enterprises should design the supply chain transaction process into a complete closed self-compensation system, so that the transaction risk related to B2B supply chain finance closely matches the corresponding operation process and promote the benign operation of B2B supply chain finance through the coordination and cooperation of "four flows".

Strengthening the financial management of the platform and reducing the risk of capital flow

The capital flow risk related to B2B supply chain finance activities mainly includes financing risk, investment risk and capital recovery risk. The platform can cooperate with banks to develop new financial products according to the characteristics of enterprises and investment projects, try credit asset securitization financing, or introduce industrial capital. These financing channels have the characteristics of credit guarantee and promotion, and the cost of capital is relatively low, which can reduce the financing risk of the platform. For the prevention of investment risk, respectively from the pre-loan, loan and post-loan three stages of omni-directional monitoring. Before loan, carry out relevant research, understand the credit status, repayment ability and management level of loan enterprises, use digital technology to complete intelligent credit; make use of "four-rate" high-level information sharing platform to supervise and feedback in real time to ensure the compliance of funds; keep track after loan, and adjust the credit line according to the status of the enterprise and the implementation of the project. Finally, according to the self-compensation logic system, we design a closed capital return procedure, and ensure that the income of the loan enterprise repay the loan principal and interest through the intelligent contract, so as to effectively prevent the risk of capital recovery.

Improving the level of technology application and preventing the risk of technology

B2B supply chain finance platform should strengthen technical risk control from three aspects: platform operating system, key point design and establishment of risk database. Firstly, digital technology is fully introduced, data collection, information analysis, early warning prompt, emergency control and other core functional modules are fully introduced, the risk control system of platform operating system is constructed, B2B e-commerce trading system, payment system, logistics system and so on are monitored, and abnormal technical operations are searched and analyzed in time. Secondly, we should comprehensively improve the level of digital technology application at the industrial, financial and service end. We need to standardize the interface of each application end in the platform, make the transaction data information of different participating entities seamlessly connect, and shorten the reaction time of transaction entities in the supply chain flow process. With the advantages of information governance of big data, the visual characteristics of the Internet of Things technology, the de-intermediation of blockchain technology, and peer-to-peer transactions, we can prevent various risks arising from the structure layer, process layer and factor layer of the B2B supply chain finance, Technological innovation realizes the "four flows" effectively running through the horizontal cluster chain, vertical value chain, and each node and transaction process of the intermediate service chain, comprehensively improving the platform's overall risk prevention and control capabilities. Finally, big data, artificial intelligence and other technologies are used to construct the risk case base, collect and accumulate abnormal operation data, classify and collect them into the corresponding database, and match with the standard risk case database data, and constantly improve the risk prevention and emergency treatment plan.

Perfecting the monitoring system of collateral and controlling the risk of pledge

The pledge risk in B2B supply chain finance mainly comes from the choice of pledge variety, the fluctuation of pledge price and the evaluation of pledge value. The platform should improve the collateral monitoring system, be familiar with the

quantity, performance, quality and safekeeping scheme of all kinds of collateral of loan enterprises through big data technology, apply the Internet of things system to grasp the real-time dynamics of collateral, introduce blockchain technology, ensure the authenticity of advance collection and receivable creditor's rights through distributed ledgers, and understand the feasibility and security of intellectual property through big data technology Development prospects, screening out high-quality collateral. B2B e-commerce platform uses the visibility of Internet of things technology to modernize the data line of movable property guarantee, monitor the price change of movable property pledge in real time, and dock with the goods in the field of commodity circulation to estimate the value of inventory pledge accurately. Financial institutions obtain collateral data information through information sharing platform and make accurate credit decisions.

CONCLUSIONS AND IMPLICATIONS

In summary, we analyzed the status and functions of B2B e-commerce platform, supply chain enterprises and service providers in B2B supply chain finance, and proposed that B2B supply chain finance logistics, business flow, information flow and capital flow coordination, supply chain enterprises relying on the credit advantages of B2B platform to obtain credit enhancement, application of digital technology and win-win cooperation of supply chain participants are good for B2B supply chain finance Key elements of sexual operation. This paper also analyzes the external environment risk, capital risk, technology risk and pledge risk of B2B supply chain finance operation from the two perspectives of external environment and internal system of supply chain and puts forward risk prevention and control strategies according to the corresponding key points of risk control. The research puts forward governance strategies such as formulating external environmental risk early warning and response mechanism, improving relevant legal system design, strengthening platform financial management, improving technology application level and improving collateral supervision system, which provides reference for the healthy development of B2B supply chain finance in China.

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