Available online www.jocpr.com

Journal of Chemical and Pharmaceutical Research, 2014, 6(5):1818-1824

Research Article

ISSN : 0975-7384
CODEN(USA) : JCPRC5

Research on small and medium enterprises financing mode based on supply chain finance

Qi Zhang, Hong Liu* and Xiaoxiao Qi

University of Science and Technology Liaoning, China

ABSTRACT

There are various solutions over the years, but the supply chain finance financing mode provides a new way of thinking to break financing difficulties of small and medium enterprises. It has great research and development value and application potential. This paper defines the concept of small and medium enterprises based on the supply chain finance, and explores concept, characteristic and subjects of the supply chain finance, three basic patterns in the process of solving the financing of SME and other issues. It presents the financing situation of SME from direct and indirect financing situation, summarizes special performances of the financing difficulties of SME, and makes an in-depth analysis of causes of the financing difficulties of SME in China from internal and external of enterprises. Finally, it puts forward advantages of supply chain finance in solving the financing difficulties of SME.

Keywords: Supply chain finance, Financial crisis, Financing, Small and medium enterprises

---

INTRODUCTION

Compared with large enterprises, there are great advantages of small and medium enterprises in expanding employment, promoting regional economic development, maintaining social stability, and the optimization of industrial structure. It also plays a very important role in the process of promoting all-round economic and social development in the region. However, due to constraints of itself business scale, management level and other objective factors, the financing pay that commercial banks give to small and medium enterprises is far lower than the level of large ones, which is not very consistent with their status and contribution in the development of social economy[1]. A survey of German small business alliance displays in 2011," Based on financing services that commercial banks provide for small and medium enterprises, only 36% of them are satisfied; 67% of them think financing approval time is too long; 87% feel financing cost is too high; 93% say loan process is too complex. "[2] Thus, small and medium enterprises' financing difficulty is great and condition is bad.

Due to its small operation scale, relatively backward management, and small fixed assets scale, the small and medium enterprises' risk resisting ability is very weak. To control risk, commercial banks have set complex risk control procedures. It is very difficult for small and medium enterprises to obtain ideal financing, therefore, while facing financial difficulties, they often get funds meeting the need of development through underground banks, private funds, guarantee corporations, investment companies. The loan interest rate that these financial service institutions provide is twice than that by commercial banks, and even higher, which has increased the burden of enterprises. This paper is based on the supply chain finance theory, and researches how to solve financing problem of small and medium enterprises under the background of financial crisis. In the context of financial crisis, researching small and medium enterprises financing based on supply chain finance enriches the theory of small and medium enterprises financing greatly, and it has extremely important theory significance.

Related Theory Summary

Many scholars mainly consider “quality” and “quantity” of enterprises in researching definition of small and medium enterprises. Because the "quantity" is easier to be calculated and its evaluation index is more intuitive, more countries adopt quantitative standard to measure enterprises. China mainly uses quantitative standard in defining SME,and focuses on operation revenue and employees number these two quantitative indicators.

In the study of supply chain finance theory, except meeting basic element of SME, it also must meet the following conditions: First, there must be a stable production supply chain in scope of commercial bank credit business, and it is a long-standing part in the supply chain; Second, it must have excellent product, and has enough cash to maintain normal production; Third, in the last 3 years, it has no bad credit records, and its finance situation is stable; Fourth, there must be at least one core enterprise in the supply chain it stands in.

Supply chain refers to, around core enterprise, researching how to control information flow, logistics, capital flow and other factors of production, and regarding raw material supply enterprises, production enterprises, product sales enterprises and consumers as an organic combination of net chain structure in the process of raw material procurement, product manufacturing, product sales and consumption[3]. It referred to in this paper is evoluted from expanded concept of production, which will extend production activities of enterprises backward and forward.

Supply Chain Finance Participants. First, commercial bank. In the supply chain financing model, the relationship between commercial bank and the core enterprise in supply chain is financial strategic partnership. Through upstream and downstream coordination of various enterprises, they jointly seek their profit growth point[4]. Second, the core enterprise. The position of core enterprise in the supply chain is determined by characteristics of the industry[5], and different industries have different core enterprises. But with the development of economy globalization, the core business is no longer the ruler of a supply chain, and they also need to cooperate with upstream and downstream enterprises. Only in this way can enterprises remain invincible in increasingly fierce international competition. Third, small and medium enterprise. The small and medium enterprise is the demander of funds in supply chain finance, and the biggest beneficiaries, but its role is the lowest. One or several small and medium enterprises’ success or failure will not have a decisive impact on supply chain, but small and medium enterprise dilemma mass will affect efficiency of the supply chain, and even lead to paralysis of the supply chain. In supply chain financing model, small and medium enterprises have alleviated financing problems. Fourth, the third party logistics enterprise. The third party logistics enterprise is very important in position of supply chain finance, and it is a bridge of communication between commercial bank and other financial institutions and small and medium enterprises[6]. It can provide guarantee for development funds for small and medium enterprises which are inferior in the supply chain, and it is the spokesman of commercial bank and other financial institutions.

Three Basic Financing Modes of Supply Chain Finance.

Prepayments financing mode in procurement stage.

In the mode of prepayments financing, SME acquires the batch payment and batch delivery rights through financing business; core enterprise realizes its sales volume by providing guarantees for SME; financial institution has got guarantee of core enterprise through prepayments financing. The business process is shown in Figure 1.1.

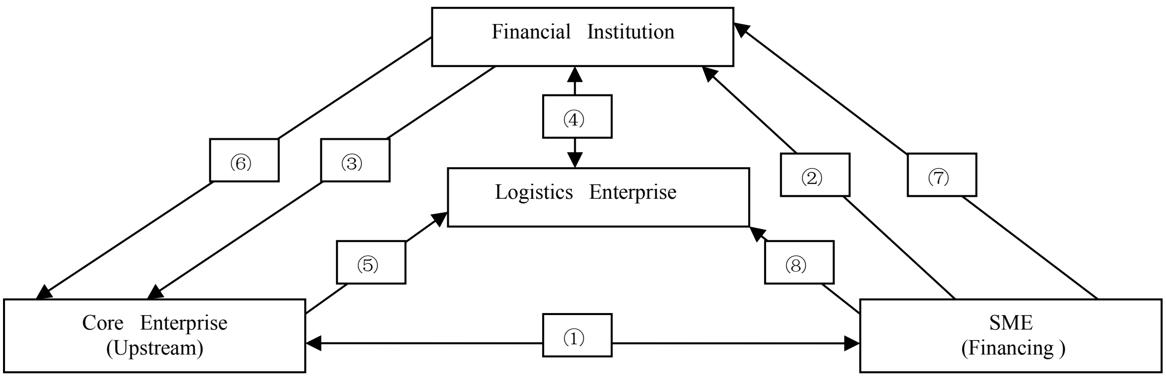

Fig. 1.1 Prepayments financing business process diagrams

1. SME and core enterprise in a supply chain sign a purchase and sale contract;
2. SME propose a pledge loan application for financial institution with the purchase and sale contract as warehouse pledge receipt, and describe the loan will be used exclusively for paying specific purchase and sale contract;

3. After getting SME’s loan application, financial institution review core enterprise's credit status and the ability to buy back. If approved, financial institution and core enterprise sign repurchase and loan guarantee agreement;
4. Financial institution and logistics enterprise sign goods storage management protocol;
5. After an approval of SME’s loan application, financial institution issues delivery notice to core enterprise. After receiving notice, core enterprise delivers goods to specific logistics warehouse of financial institution, and gives warehouse receipt to financial institution;
6. Financial institution appropriates payment for core enterprise;
7. SME pays a certain amount of deposit for financial institution, and financial institution releases corresponding proportion rights of delivery for SME, and informs logistics enterprise of goods’ quantity SME can take delivery;
8. According to quantity, SME takes delivery from specific logistics warehouse;
9. Step 7 and 8 will be in a continuous cycle, and until deposit amount is equal to the amount of draft, SME will take all goods within the purchase and sale contract.

Chattel mortgage financing mode in operational stage.

It refers to in a specific supply chain, SME proposes loan application for commercial bank and other financial institutions with movable property as collateral, the core enterprise provides guarantee for SME, logistics enterprise helps bank to supervise the SME, and bank gives loan SME under the premise of guarantee and supervision. The operation process is shown in Figure 1.2.

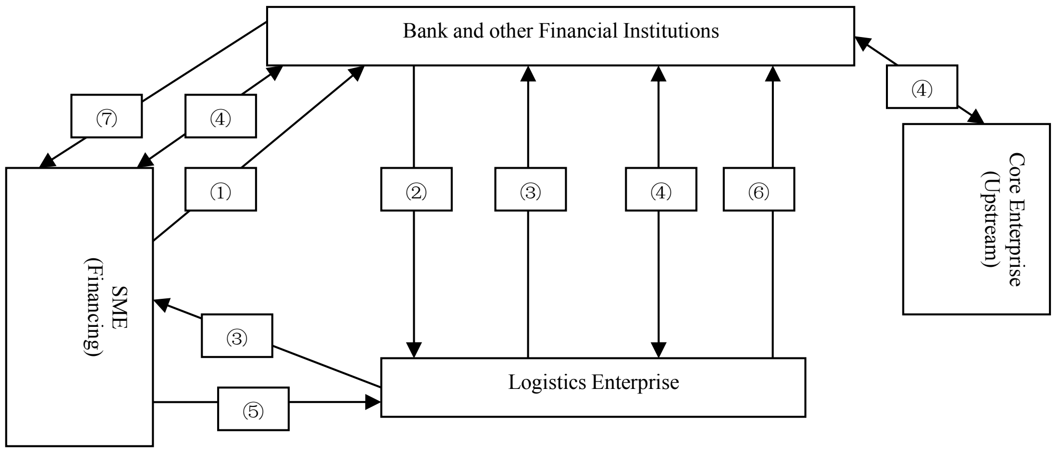

Fig. 1.2 Chattel mortgage financing business process diagrams

1. SME proposes loan application for commercial bank and other financial institutions with movable property as collateral;
2. After receiving application, financial institution entrusts logistics enterprise to assess the value of real estate;
3. The logistics enterprise assesses the value of real property providing by SME, and issues valuation report to financial institution;
4. Through the assessment, if meeting pledge condition, financial institution will approve credit line of SME, and then sign chattel mortgage contract with SME, sign repurchase agreement with the core enterprise, and sign warehouse management agreement with logistics enterprise;
5. SME gives movable property for pledge to specific logistics enterprise;
6. The logistics enterprise transfers chattels, and notifies financial institution deliver loan;
7. Financial institution provides loan for SME.

Accounts receivable financing mode in sales stage.

It aims at SME in upstream of the supply chain, which consists of SME, the core enterprise and financial institution. Its operation process is shown in Figure 1.3.

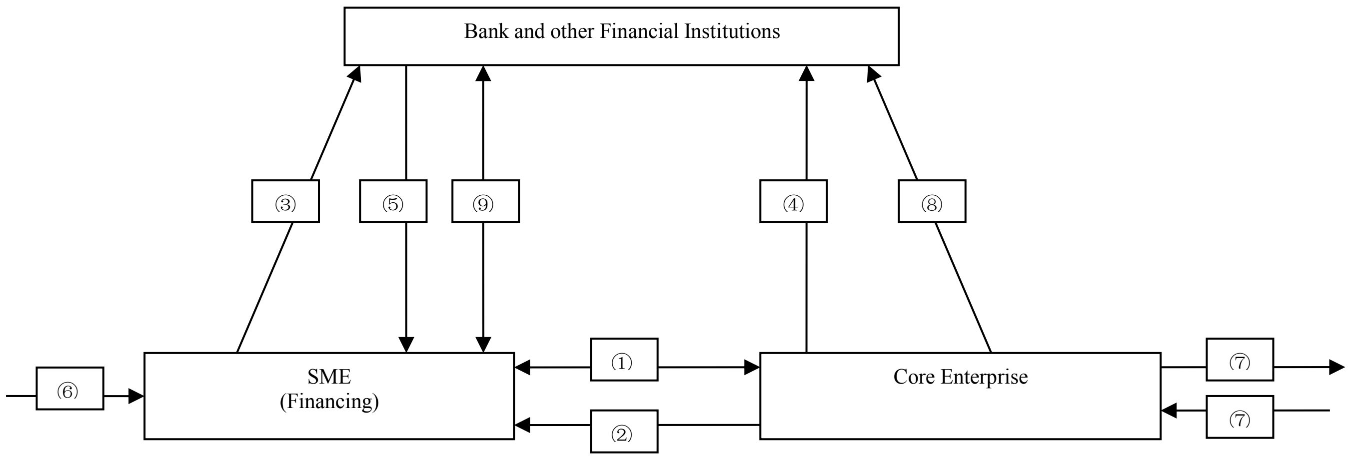

Fig. 1.3 Accounts receivable financing business process diagrams

1. SME in upstream of the supply chain and the core enterprise sign purchase contract;
2. SME receives accounts receivable voucher from the core enterprise;
3. SME applies for loan with outstanding accounts receivable voucher to financial institution;
4. The core enterprise issues accounts receivable voucher certification and counter guarantee loan commitment;
5. SME gets loan from financial institution, and financing succeeds;
6. SME purchases raw materials and other factors of production needed with obtained loans;
7. The core enterprise sales product and receives payment;
8. The core enterprise uses loan in the payment SME's specific account;
9. The outstanding accounts receivable pledge contract is canceled and financing ends[7].

Analysis of Small and Medium Enterprises Financing Situation, Problem and Causing

SME Financing Situation. Direct Financing Situation. First, the GEM listing financing. Financial crisis results in collapse of a large number of SMEs for capital chain rupture. In order to solve the financing difficulty as soon as possible, economists in China created the GEM market through extensive investigation. But it is still a new thing for them, so for investors, investment risk is relatively big for small and medium board. Second, bond financing. Enterprise bond is debt security issued following established procedures. Although SMEs can finance directly to society through the issuance of bonds, it is ultimately difficult to bond financing. Third, fund raising. For SMEs, it is a double-edged sword. Although it can provide convenience, if using improperly, it will bring great impact to enterprises. Once become illegal financing, it will bring greater harm to society. Fourth, folk financing. To some extent, it has alleviated the problem of financing. But this kind of financing is informal needing high required cost and risk, if not handled properly, it will be harmful to economy and society.

Indirect Financing Situation. It mainly includes bank loans, bills discounting and financial leasing. How to change discriminatory attitude from commercial banks, especially state-owned commercial banks to SMEs financing is the key to solve the problem of obtaining funds through indirect financing market.

Special Performance of SME Financing Difficulty. First, fund gap expands further. Its main reasons are: on the one hand, SME's business is around the core enterprise; on the other hand, the core enterprise's business shrinking leads to a large number of inventory, which take up a lot of liquidity, and a serious shortage of liquidity. Second, loan structural contradiction intensifies. "The direct financing channel is narrow, and indirect financing mainly relies on bank loan, which results in bank lending in the state of short-term loan mainly and long-term loan deficiency". Third, financing cost improves further. Under the influence of financial crisis, financial security has been referred to the highest position. Many enterprises' demands for funds are more strong. Unable to get a loan from bank, they aim at folk financing. It invisibly increases operating costs of them, which is more harmful.

Causing Analysis of SME Financing Difficulty. Under the influence of financial crisis, it is difficult to find clear data, which increases the difficulty for financing; the management is limited. Banks are more cautious about loan now, to reduce business risk and loss, few are willing to provide financing. The financing characteristics of SME are small, sharp and frequent. Even central supports are aimed at SME, policy is also very difficult to get. Considering from the bank's point of view, so many commercial banks are reluctant to lend to SME. SME does not have professional finance team. Financial institutions are unable to see detailed and convincing data, and they refuse financing request proposed by SME. For external reasons, government and banks have key influence on financing. The optimal allocation of resources needs government regulation in a timely manner. Government policy is improper. The dislocation of government's role is another influence. After the outbreak of financial crisis, government should take more consideration to formulate relevant laws and regulations to help the development of SME, to strengthen the construction of legal system and reduce administrative intervention and so on. For bank, the discrimination of loans to SME is first. In China's industry development, state-owned banks are only willing to give loan to state-owned enterprises, and have discrimination on SME.

Advantage of Supply Chain Finance in Solving SME Financing Difficulty. It has more flexibility. International environment of SME development is deteriorating rapidly, with the aid of supply chain strength, upstream and downstream enterprises can use the flexibility of financing strategy to obtain various forms of financial support. It helps direct financing. In the mode of supply chain financing, the core enterprise, SME, financial institution and the third party logistics are a whole. It is easy to obtain bank loans. In the mode of supply chain financing, SME can use the scale advantage to improve reputation and weaken defects, so as to improve the probability of obtaining financing. It is easy to carry out folk financing. Supply chain provides an information sharing platform for bank and SME, which effectively solves the problem of information asymmetry between banks and enterprises. SME uses scale and resource advantage to increase the probability of success to obtain loans from banks and other financial institutions[8].

Some Supply Chain Finance Financing Modes Suiting SME's Application.
Based on inventory impawn financing model.
In a stable position of the supply chain, SME uses inventory as the pledge to apply for financing. The basic process is shown in Figure 2.1.

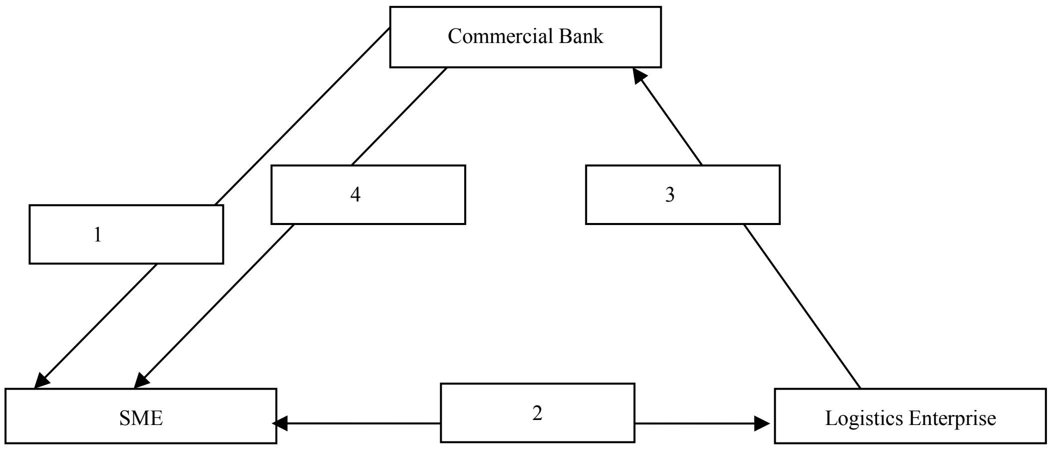

Fig.2.1 Based on inventory impawn financing model business process

1. SME proposes financing application for commercial banks;
2. SME makes inventory to be supervised by the third party logistics enterprise, and inventory ownership rights do not change;
3. SME, commercial bank and the third party logistics enterprise sign the agreement. The third party logistics enterprise is responsible for supervising warehouse inventory, and issues evaluation certification to the bank;
4. Commercial bank loans to SME after approval of assessment receipt issued by the third party logistics enterprise. When SME repays loans to the bank, bank issues delivery instruction to the third party logistics. Three party protocol automatically ends.

Based on prepayments pledge financing model.
When the core enterprise in a stable supply chain promises to repurchase SME's product, SME uses delivery rights as the pledge to apply for financing service. The business process is shown in Figure 2.2.

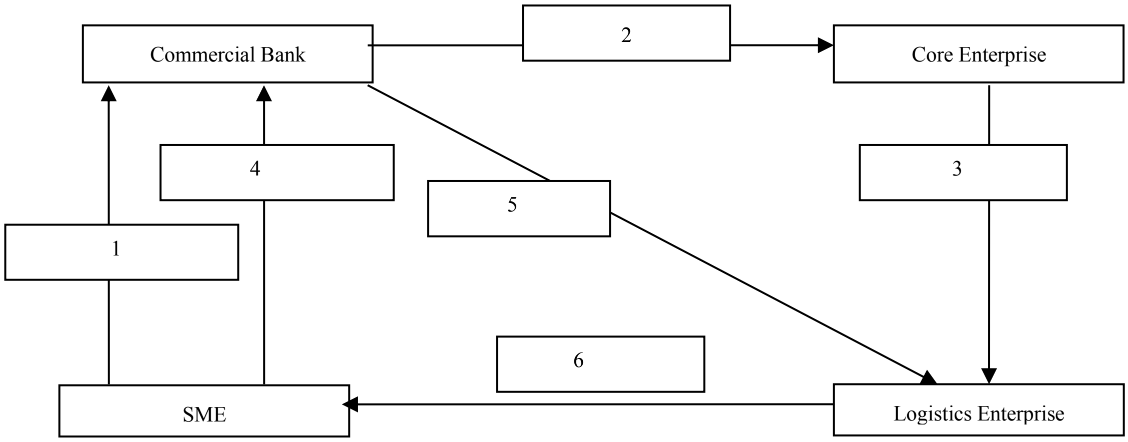

Fig.2.2 Based on prepayments pledge financing model business process

1. SME proposes financing application for the bank, and gets a certain amount of bank acceptance bill by paying deposit;
2. SME obtains bank's financing help, and pays the funds to the core enterprise;
3. The core enterprise delivers goods for the third party logistics enterprise after receiving payment;
4. Through adding deposit to bank, SME gets a certain number of delivery rights;
5. According to the amount of deposit SME adds, the bank issues delivery notice to the logistics enterprise;

After selling goods and obtaining money for SME, step 1 to 5 will be done in a cycle.

Based on accounts receivable pledge financing model.
In a stable supply chain, SME uses outstanding accounts receivable as the pledge to apply for bank financing. In this mode, SME is located in the upstream of supply chain and is debt enterprise, while the core enterprise located in the downstream offers counter guarantee role in financing process. The business process is shown in Figure 2.3.

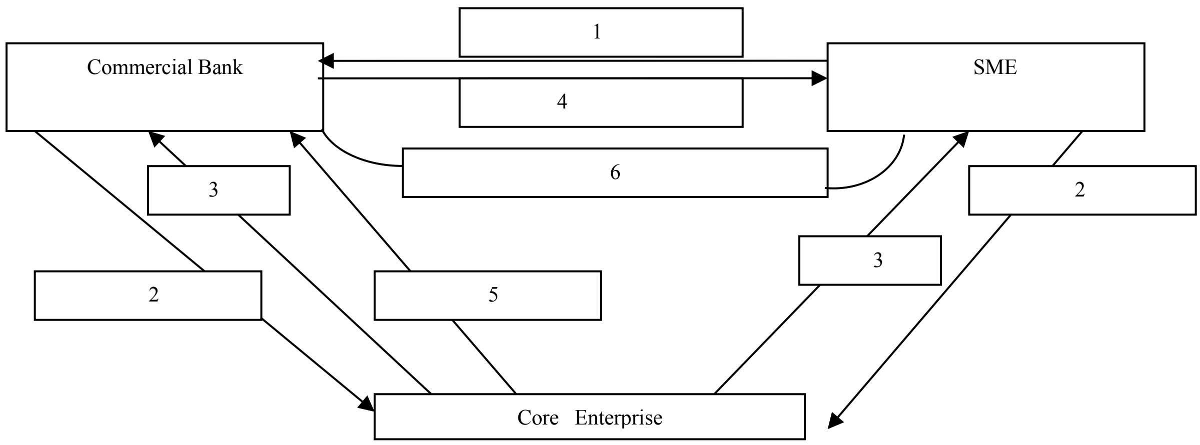

Fig.2.3 Based on accounts receivable pledge financing model business process

1. The core enterprise and SME trade to get accounts receivable, and SME uses outstanding accounts receivable as the pledge to apply for loans;
2. The bank checks outstanding accounts receivable documents to the core enterprise, and confirms repayment to bank. The core business provides counter guarantee for SME;
3. The bank loans to SME;
4. When accounts receivable expire, the core enterprise repays to lending bank mortgage accounts, after deducting financing payment, balance will put in the account.

SME Financing Risk Prevention and Countermeasures

Supply Chain Fiance Mode Financing Risk Prevention and Countermeasures. Based on inventory impawn financing model potential risks and prevention measures. There are three risk points: First, whether the third party logistics company has enough supervision capacity, whether the pledge of movable property is real estated, and whether the sale will profit; Second, whether the pledge of movable property has liquidity risk; Third, whether the pledge of movable property has economic value. Banks can take measures from the following five aspects to guard against the risks. The first is to carry out effective supervision of the pledge of movable property. Second, check warehouse receipt is valid or not. Third, ensure good flow property. Fourth, select the pledge of chattel according to market. Fifth, improve the quality of supervision of collateral.

Based on prepayments pledge financing model potential risks and prevention measures. The main risks are in the following two aspects: on the one hand, from the third party logistics enterprise credit skills; on the other hand, from supervision skills of the third party logistics. Banks can prevent risks from the following four aspects: ensure the third party logistics enterprise's guarantee ability, determine supervision ability of the third party, determine information sharing with the third party logistics enterprise, and adjust loan interest rate according to the condition of production[9].

Based on accounts receivable pledge financing model potential risks and prevention measures. The risks are whether accounts receivable receipt is accepted by the core enterprise, and guarantee ability of the third party logistics and core enterprise. Banks can take the following measures to prevent these risks: to ensure that the accounts receivable receipt is accepted by the core enterprise, select the third party logistics company with high credit ratings, and assess credit of the core enterprise[10].

Countermeasures and Suggestions to Develop Supply Chain Finance. First, government should strengthen support on supply chain finance financing for SME. The government should formulate corresponding policies and regulations to encourage financial institutions to carry out the financing based on supply chain finance for SME. Second, strengthen risk prevention of logistics enterprises and banks in business. Banks should strengthen cooperation with the third party logistics enterprise to establish an information sharing platform. Perfect internal management system to eliminate the risks caused by mistakes. Third, financial institutions should further increase financial innovation. According to characteristics of supply chain and the actual situation of SME, commercial banks should continue to design new financial products to meet the need of different industries. Fourth, financial institutions need to build a perfect supply chain financing investment service platform. Not only the need for innovation in product design, support on policy, financial institutions also need to build investment service platform based on supply chain finance perfectly. In accordance with the division of functions, the investment service platform based on supply chain finance should be composed of the following seven systems: supply chain management system, investment and financing management system, credit risk management system, supply chain liquidation management system, enterprise account relationship management system, enterprise capital flow management system, and enterprise reconciliation management system.

REFERENCES

[1] Long Zhiyun, Chen Feiyan. *Market Weekly* (Theory), **2011** (1): 22.
[2] Yao Yilong. Research on the financing problem of small and medium-sized enterprises [M]. Beijing: Economic Management Press, **2012**.
[3] Li Fei. *Accounting Monthly*, **2012** (17): 31.
[4] Zhou Hao. *Knowledge Economy*, **2011** (6): 48.
[5] Ren Hongguang. *Modern Commerce*, **2011** (5): 5.
[6] Zhang Yiping. *Journal of Yichun University*, **2011** (1): 15.
[7] Li Ke, Zhao Lina. *Foreign Investment in China*, **2010** (8): 26.
[8] Gao Zhengping. The financing of small and medium-sized enterprises[M]. Beijing: China Financial Press, 2004
[9] Miu Xingfeng. *Reform and Strategy*, **2010** (1): 8.
[10] Guo Yuexian, Li Huijun. The small and medium-sized enterprises financing structure and model[M]. Harbin: Harbin Engineering University press, **2007**.