Analysis on Financing Difficulty of Farmers Specialized Cooperative

—Based on Finance Supply Chain

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Abstract—Lack of funds has a bottleneck to restrict the development of farmers specialized cooperative because of weak power, financing pledge and guarantee shortage. As a new financing technique, supply chain financing which mainly contains three models including accounts receivable, prepaid accounts and stocks can be used to solve financing problems of farmers specialized cooperative. However, it lacks practice and promotion, and it also presents some difficulties in practice. Therefore, We should increase the knowledge of supply chain finance, foster the farmers specialized cooperative to develop continuously and healthily, develop rural logistics vigorously, establish multilateral cooperative supply chain finance system, and perfect the rural financial ecological environment to promote supply chain finance to serve the farmers specialized cooperative better.

Keywords-farmers specialized cooperative(FSC); supply chain finance(SCF); accounts receivable financing; advance money financing; exiting stock financing

I. INTRODUCTION

Supply chain management (SCM) is applied in today's business world to optimize the flows of goods, information, and the financial flows within and between companies by functional and cross-company integration. A framework for the financial aspects of SCM is developed. Furthermore, a mathematical model is proposed to explain financing activities across supply chains, which are referred to as "supply chain financing" (SCF). The basic idea of the model is that supply chain inf ormation can be used to decrease investment risks and thus capital costs of financing projects within supply chains.

In order to conceptualize the term SCF, it has to be examined which assets (objects) within a supply chain are actually financed by whom (actors) and on what terms (levers). These three dimensions add up to the framework of the supply chain finance which is depicted in Fig. 1 as an overview and which is going to be illustrated in mo re detail in the following.

A. *Objects of Supply Chain Finance*

Objects of finance may be fixed assets, i.e. those assets that permanently provide a basis for the business operations, and working capital, which is variable day-by-day.

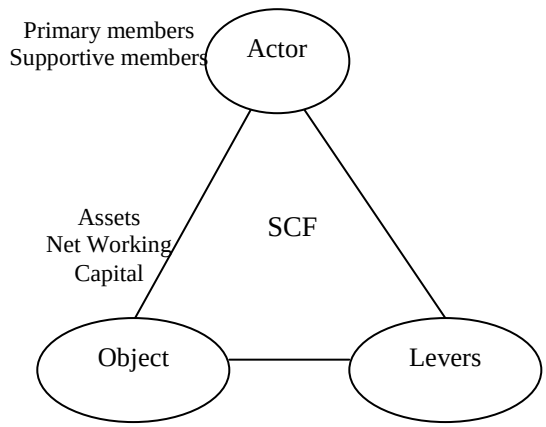

Figure 1. Framework of supply chain finance

B. *Actors of Supply Chain Finance*

After having outlined the objects of supply chain finan ce, the actors within the supply chain that can take a share i n financing have to be identified. Lambert et al.refer to the

suppliers, the customers, and the focal company of a suppl y chain as primary members, whilst logistics service provi ders are seen as supporting members.

C. *Levers of Supply Chain Finance*

The dimensions of financing within supply chain finance comprise three aspects: volume of financing, duration of financing and capital cost rate.

II. FARMERS SPECIALIZED COOPERATIVE

Farmers Specialized Cooperative (FSC) in China has been taking an important part in overcoming decentralized organization, spreading new agricultural technology, promoting large-scale operations, and stimulating agricultural industrialization. However, FSC is at the initial stage of development, facing many difficulties and challenges, especially the issue of financing has become the top constraint problem. Maybe we can have a try to make use of Supply Chain Finance (SCF) to solve this problem.

SCF is related to that the manufacture, warehousing, transport, distribution, finance and other enterprises in supply chain forms correlated stakeholders, they support with each other by credit and get bank loans and other financial services. The basic idea of SCF is One plus N, One means the large powerful company in supply chain, and N means many small and medium-sized enterprises connected firmly with the large powerful company. The banks supply small and medium-sized enterprises with credits by assessing the credibility of the large powerful company and the transaction of the components belong to the SCF. In recent years, the FSC in China has gradually engaged in the supply chain which contains the leading enterprises and farmers. Therefore, the FSC which can't be fully funded for lack of mortgages and credit guarantee agencies has a chance to acquire financing by SCF. In this creative and mainly serving for weak enterprises financing system, the FSC can be guaranteed by the leading enterprises' credit and pledged by inventories and accounts receivable to obtain bank loan.

III. FUNDS SUPPLY MODELS OF FARMERS SPECIALIZED COOPERATIVE

There are mainly three SCF modes for the FSC. The members containing FSC, leading enterprise and bank connect firmly with each other in the supply chain.

A. *Accounts Receivable Financing Model*

In this model, the FSC sells farm products to the leading enterprise, and the bank is the finance supporter. If the FSC doesn't receive the payment immediately, it would be in the capital tense situation, thus it can make use of accounts receivable to finance. The concrete SCF steps are shown in Fig.2.

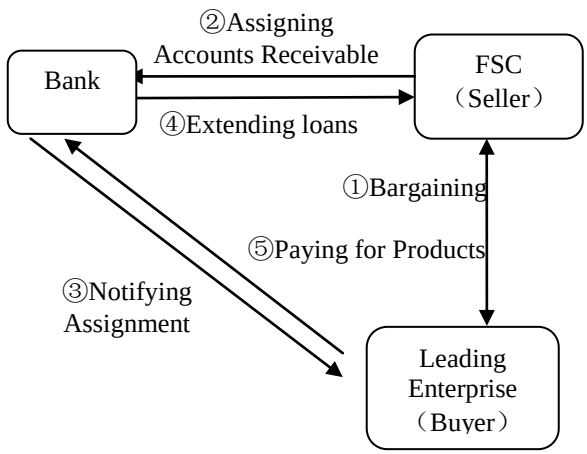

Figure 2. The Concrete SCF Steps of Accounts Receivable Financing Model

- ① The FSC sells farm products to the leading enterprise without receiving payment.
- ② The FSC applies to the bank for assignment of accounts receivable.
- ③ The bank examines the documents concerned and notifies the leading enterprise the assignment of accounts receivable.
- ④ After attested by the leading enterprise, the bank extend loans to the FSC.
- ⑤ The bank receive payment of products from the leading enterprise.

B. *Prepaid Accounts Financing Model*

In this model, the FSC purchases the seeds, chemical fertilizer and other agricultural raw materials from the leading enterprise. If the FSC hopes to lock the risk of raw materials price rise, it would pay the bills in advance, so it can finance with the prepaid accounts. The concrete SCF steps are shown in Fig.3.

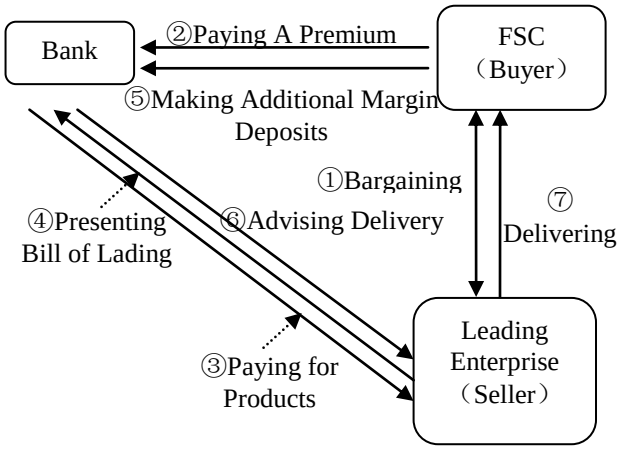

Figure 3. the Concrete SCF Steps of Prepaid Accounts Financing Model

- ① The leading enterprise sells agricultural production material to the FSC without delivering goods because it hasn't received the payment.
- ② The FSC pays a premium to the bank according to the specified proportion of loan.
- ③The bank helps the FSC to make a payment in advance.
- ④ The leading enterprise presents the bank with Bill of Lading as guarantee.
- ⑤ The FSC makes additional margin deposits.
- ⑥ The bank advises the leading enterprise to deliver the goods.
- ⑦ The leading enterprise delivers the goods to the FSC. Therefore, prepaid accounts financing Model is essentially that the bank substitute the FSC to make a payment to the leading enterprise in advance and the FSC repay the loan in installments.

C. *Stock Financing Model*

Stock financing mode means the FSC applies for a loan from bank by mortgaging stock. Both of the two financing models referred above need leading enterprise to control financial risk, oppositely, stock financing model is able to operate dependently from the leading enterprise, but it needs the third-party logistics enterprise' cooperation. The concrete SCF steps are shown in Fig.4

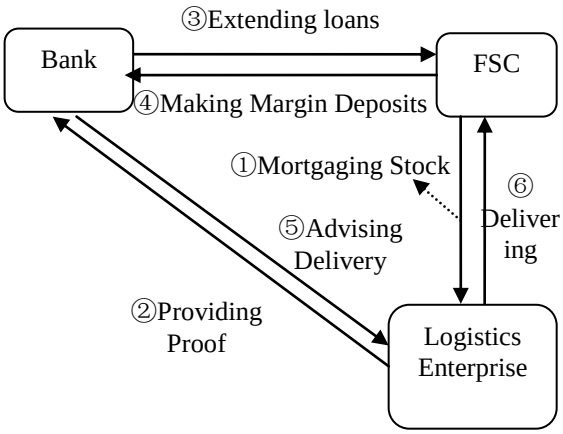

Figure 4. the Concrete SCF Steps of Stock Financing Model

- ①The FSC mortgages stock to the bank.
- ②The logistics enterprise assesses the stock and provides the bank with proof.
- ③After receiving the premium from the FSC, the bank extends loans to it.
- ④ The FSC makes margin deposits.
- ⑤ The bank advises the logistics enterprise to deliver the goods.
- ⑥ The logistics enterprise delivers the goods to the FSC once confirming the instruction.

IV. EMPIRICAL STUDY

It is a new research topic to resolve the financial problems of FSC by means of SCF in China. There are also many difficulties to be dealt with in practice.

A. *The rural supply chain node enterprises develop slowly.*

Firstly, FSC in China is still in initial stage and its operation and management are irregular to some extent. It can't be denied that the business scale, management ability, processing capacity, transaction way and workers quality of FSC lag far behind that of modern enterprise. Moreover, FSCs have been approved as the market player legally, but most of them haven't registered and obtained legal business licenses. Therefore, their supply chain market activities lack the necessary policy support. Secondly, rural logistics enterprises develop comparatively slowly. Their weak integrated functions such as unified settlement, information transmission, packaging, processing, and distribution can hardly meet the requirements of SCF. Thirdly, the fund supply is also blocked by the slow rural financial reform progress, irregular management and weak risk control ability of rural financial institution.

B. *Cooperation among members of rural SCF is relatively loose.*

For one thing, the relation between the leading enterprise and the FSC is loose. The cooperation between the two sides is a short-term behavior due to the lack of mutual trust, this brings about cooperation economic benefits low and they can't achieve the Pareto optimality. For another, the relations between the rural financial institution and other supply chain members such as the leading enterprise and the FSC are loose too. Typically the leading enterprise and the FSC don't get services from the same financial institution: as a result, neither can the financial institution master business operations information of whole supply chain members nor can it provide appropriate financial products for the node enterprises.

C. *The external environment supporting SCF is unpleasant.*

For the credit environment, the lack of credit in rural areas is anxious. The market main body lacks market economy required credit culture, credit awareness and credit moral values. If the supply chain members provide false information to obtain bank loans, then credit rating will be distorted and financial risks will be created. For the legal environment, SCF lacks a healthy legal system. It leads to a disorder of financing that laws and regulations construction concerned lags far behind the development speed of SCF.

V. CONCLUSIONS AND SUGGESTIONS

SCF provides a new idea for solving the financing problems of FSC. As a new mutually beneficial financing technique, all the members should do their best to promote the sustainable development of SCF, for instance, FSC needs to further strengthen self-instruction, rural financial institutions, government departments, leading and logistics enterprises should create conditions to push the innovation and extension of SCF, etc.

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