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# Development of Western Logistics Finance Based on Village Banks: A Case Study of Baise City in Guangxi

Wang CAI\*

Department of Economics and Management, Baise University, Baise 533000, China

**Abstract** This paper analyzed the feasibility of development of western logistics finance based on village banks. Combining actual situations, it came up with four specific models for operation of western logistics finance: (i) settlement type advance payment by village banks, (ii) pledge by warehouse receipts, (iii) inventory pledge, and (iv) confirmation warehouse models.

**Key words** Village banks, Logistics finance, Operation models, Western areas

## 1 Overview of researches about logistics finance

**1.1 General information of logistics finance** The logistics finance is evolved with development of logistics and provides financial services such as financing, settlement, and insurance. It refers to financing activities using and developing various financial products in the process of logistics operation, implementing effective integration of material flow, fund flow and information flow, effectively organizing and adjusting flow of monetary funds in the supply chain, so as to increase fund operation efficiency and realize increase in logistics value. These fund activities include deposit, loan, investment, trust, rent, mortgage, discount, insurance, issue and transaction of negotiable securities in the process of logistics, as well as intermediate businesses handled by financial institutions involving logistics.

**1.2 Current situations of domestic and foreign researches about logistics finance** Foreign researches about logistics finance are carried out as early as the appearance of the concept of logistics and most research findings are practical. Friedman, Albert, Raymand, Dunham and Eisenstadt summarized legal atmosphere, business model, warehousing method, monitoring method and process of development of stock pledge financing and accounts receivable financing in foreign countries. Barnett and David Biederman studied current situations and development trend of logistics finance. Sidney Rutberg introduced major characteristics of logistics innovation models taking international logistics giant UPS as an example. Leora Klapper analyzed incentive function of inventory financing model adopted by small and medium-sized enterprises in the supply chain. Douglas, Fenmore, Warren and Guerrisi also expressed their opinions about development of logistics finance.

Domestic researches about logistics finance start later and research findings are mainly in financing model and risk control. Chen Huai raised the conception of building resources banks<sup>[1]</sup>.

Zhang Pingxiang *et al* studied pledge by warehouse receipts of payment for grain, cotton and oil<sup>[2]</sup>. Ren Wenchao discussed solving chain debts of enterprises through using resources of banks<sup>[3]</sup>. Luo Qi *et al* introduced significant achievement in research of logistics finance, *i. e.* the financing warehouse, and defined the concept of logistics finance and analyzed the operation model<sup>[4]</sup>. Zou Xiaopeng *et al* firstly introduced concept of the logistics finance and defined its intension and extension<sup>[5]</sup>. In 2004, China Guangfa Bank (formerly Guangdong Development Bank) firstly launched the business of "logistics bank". Later, Huaxia Bank and China CITIC Bank also released corresponding business service. Liu Gaoyong discussed the integration of corporate logistics and fund flow from the perspective of network technology<sup>[6]</sup>. Li Yixue *et al* analyzed key risk control indicators for stock pledge financing in entrusted supervision through building models<sup>[7]</sup>.

Both domestic and foreign scholars made qualitative researches on operation model, law and regulation environment, and risk management and control of logistics finance, but there are few quantitative researches. Besides, it is still to further study construction of credit evaluation system of market entities, construction of management information system, and construction of business process standardization, and charging criteria of logistics finance service, coordinated development of logistics technology and financial engineering technology<sup>[8–9]</sup>. Logistics finance is a new thing rapidly developed in recent years. It is the product of cross development of modern logistics and finance and a new innovated and integrated service.

## 2 Feasibility analysis on development of western logistics finance based on village banks

Around the year 2000, the state-owned and state holding banks gradually withdrew from western rural areas, while joint stock banks and foreign capital banks also expand businesses in developed areas. In generally, there are few business offices of various financial institutions in western rural areas. In some counties, not all 4 state-owned commercial banks are established and the business offices are few; there is nearly no other bank in towns and villages, except rural credit cooperatives. The Postal Savings Bank

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\* Corresponding author. E-mail: 359102623@qq.com

of China is the major financial institution in rural areas, but it mainly absorbs deposit and provides little loan. Agricultural Bank mainly provides loan for construction of rural infrastructure and the function of Agricultural Development Bank is limited.

In recent years, the development of new rural financial institutions such as village banks, rural fund cooperatives, credit companies, and small sum loan companies is vigorous. Tiandong County of Baise City becomes the only pilot reform county of rural finance in the whole country and provides the favorable precondition for rapid development of rural finance in Baise City. At present, Baise City is establishing a new financial institution pattern. Baise City is a new industrial city with aluminum industry as leading industry, and it is a developed agricultural area with state agricultural scientific and technological park as support. A lot of small and medium sized planting and breeding farmers have increasing demand for funds. In the traditional bank pledge business, financing party should provide credit or fixed assets as mortgage. However, small and medium sized enterprises and planting and breeding farmers have poor credit, small size of fixed assets, and huge financial demand fails to be satisfied, leading to sharp conflict between supply and demand of financial market.

Village banks are new rural financial institutions developed in western areas since 2006. On the one hand, western areas have resource, geographical and policy advantages. Relying on these fundamental conditions, western areas can energetically develop logistics. On the other hand, western financial institutions below the county level shrink, and new rural financial institutions with village banks as representatives just make up for such gap. Development of western logistics finance can fully draw support from village banks and set foot on the road of considerable development. Village banks of Baise City are mainly distributed in Youjiang River valley (mainly including Pingguo County, Tiandong County, Tianyang County, and Youjiang District). These areas belong to the subtropical monsoon climate zone, which is suitable for growth of agricultural crops. Thus planting and breeding industries are comparatively developed. These areas are major vegetable and fruit production areas of China and also important bases of south-to-north vegetable transportation and west-to-east vegetable transportation. Rich resources promote rapid development of the logistics. At present, Pingguo County has established Pingguo National Village Bank (in 2008) and Bangwei Branch (in 2009), Tiandong County has established Tiandong Beibuwan Village Bank (in 2009), Tianyang County has established Tianyang Xingyang Village Bank (in 2010), Youjiang District would plan to establish Youjiang Huarun Village Bank (in 2011). These village banks have problems of low ability of absorbing deposit, simple product, low rate of quality loan, high risk, and incomplete service functions. However, they have unique advantages other commercial and policy banks do not have, such as flexible loan, high adaptability, high innovation ability, and high risk controllability.

On the one hand, rural areas have problems of low coverage of financial institutions, insufficient supply of finance, incomplete

competition, simple financial products, and lack of financial derivative tools. As a result, demands of farmers and rural small and medium sized enterprises fail to be satisfied and the conflict between supply and demand at rural financial market is extremely sharp. On the other hand, rural areas energetically develop agriculture and light industries through adjusting industrial structure and transforming economic development mode, which brings huge product flow, material flow, fund flow, and information flow. Nevertheless, due to lack of scientific circulation and flow of funds, these deteriorate shortage of funds in production, processing, sales, and logistics. At this time, as essential entities solving financial demands of rural areas, village banks are doubted about legal status, low reputation, few high quality customers, not smooth business expansion, low benefit, and lagging in development. Besides, facing huge financial demand of rural areas, village banks should actively join the increasingly developing logistics and form unique logistics finance with their own advantages. Therefore, taking village banks as promoters of logistics finance can drive rapid development of the logistics, provide profit source for village banks, and promote development of village banks.

### 3 Operation models of western logistics finance based on village banks

From the earliest conception of material banks to present logistics banks and UPS model, logistics finance is gradually manifesting its unique charm. Operation models of logistics finance have two major types; one is settlement and other is supervision. The settlement type includes advance payment and collection on delivery; the supervision type is financing warehouse business, including pledge by warehouse receipts, inventory pledge, and confirmation warehouse models. Village banks and other commercial banks have common and special characteristics. Therefore, it is required to be prudent when selecting operation models of the logistics finance.

**3.1 The settlement type** For advance payment of village banks in Baise City, suppliers are mainly planting and breeding farmers and micro enterprises. Compared with commercial banks and joint stock banks, village banks generally serve county-wide areas, so they are familiar with local suppliers. These are helpful for carrying out advance payment. The advance payment of village banks is shown in Fig. 1. The suppliers firstly delivery goods to third party logistics enterprise and transfer goods receipts to village banks. Third party logistics enterprise provides goods information for village banks, and village banks delivery advance payment to suppliers according to goods information. After receiving party paying off goods payment, village banks submit bill of lading to receiving party, and issue delivery order to the third party logistics enterprise, and then the receiving party can obtain goods. If the receiving party fails to make payment to village banks within the specified deadline, village banks can auction goods in hand at domestic and foreign market or ask suppliers to buy back original goods. Using this model, suppliers can obtain financing, which is

favorable for continuity (going-concern). Village banks obtain interest and thus increase income source. Third party logistics enterprise collects service charges, which will expand service range. The receiving party can obtain financing indirectly, receive goods as soon as possible, and better catch the business opportunity.

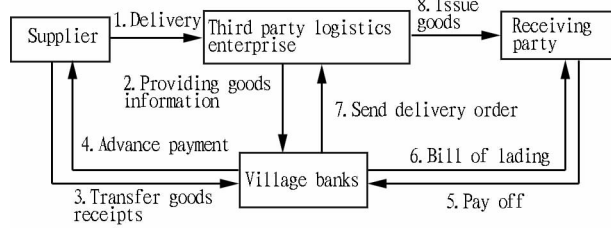


Fig. 1 The advance payment of village banks

### 3.2 The supervision type

**3.2.1 The pledge by warehouse receipts.** The pledge by warehouse receipts is shown in Fig. 2. Firstly, goods owners pledge their goods in warehouse of the third party logistics enterprise designated by village banks. The third party logistics enterprise is responsible for supervision and security of goods, and provides pledge by warehouse receipts according to goods information. Village banks grant certain amount of loan to goods owners according to such information in combination with usage, mobility, and price fluctuation of pledged goods. After goods owners make payment, village banks send goods issue order to the third party logistics enterprise, and the third party logistics enterprise issue goods accordingly. Since warehouse belongs to the third party logistics enterprise designated by village banks and the third party logistics enterprise provides security and supervision services, it is helpful for reducing risk of village banks in collecting loan. Once there is problem of loan collection, the third party logistics enterprise should assume corresponding legal liabilities.

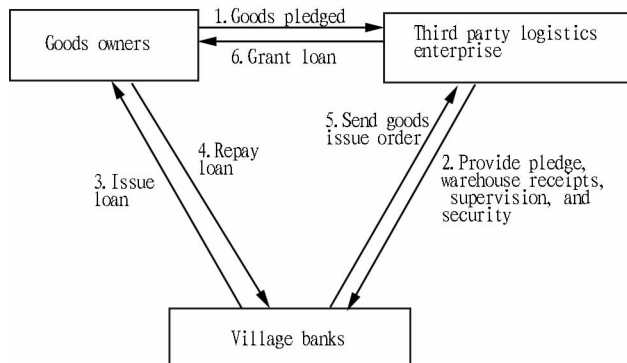


Fig. 2 Pledge by warehouse receipts

**3.2.2 The inventory pledge model.** The inventory pledge model, as an expansion of pledge by warehouse receipts, is mainly for satisfying demands of goods owners for warehousing and reducing circulation costs. Through negotiation of goods owners (possibly suppliers or receiving party), third party logistics enterprise, and village banks, they sign business cooperation agreement. The inventory pledge model is shown in Fig. 3. Firstly, goods owners pledge goods in a warehouse (not belonging to the third party lo-

gistics enterprises, able to realize full use of social warehouse resources) approved by banks. The third party logistics enterprise supervises goods, provides goods information for village banks and takes security for goods. Next, warehouse submits goods receipts to village banks, and village banks grant loan according to goods receipts. After goods owners repay the loan one time or several times, they notify the third party logistics enterprise and send goods issue order to warehouse. Then, the warehouse sends goods to goods owners after the third party logistics enterprise makes confirmation. If the goods owners fail to repay the loan within the specified deadline, village banks can auction all goods or ask the third party logistics enterprise to make payment.

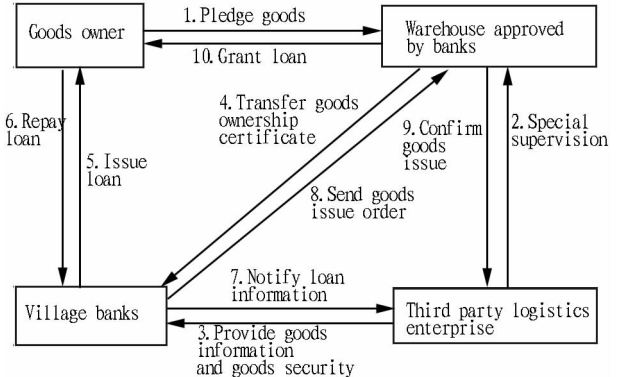


Fig. 3 Inventory pledge model

**3.2.3 The confirmation warehouse model.** The confirmation warehouse model is an extension of the pledge by warehouse receipts. Through negotiation, suppliers, the third party logistics enterprise, goods receiving party, and village banks establish confirmation warehouse and sign the confirmation warehouse business cooperation agreement. The confirmation warehouse model is shown in Fig. 4. In the business of confirmation warehouse, under the premise of the supplier assumes the responsibility of buying back goods, the receiving party signs a purchase contract with supplier and pays certain amount of deposit in security to village banks. Such amount is generally not less than the amount that the receiving party plans to pick up goods. The supplier applies to village banks to open acceptance bill special for paying the supplier. The third party logistics enterprise provides security for acceptance. The receiving party provides counter guarantee for the third party logistics enterprise, while the third party logistics enterprise determines the underwriting amount according to sales and stock of goods, and collects supervision costs. After village banks open acceptance bill to supplier, the supplier hands over the (confirmation) warehouse to the third party logistics enterprise. Then this model is changed to pledge by warehouse receipts. Through the confirmation warehouse, it greatly alleviates cash pressure of both parties, increases capital turnover, and really realizes multi-win of supplier, receiving party, third party logistics enterprise and village bank. If the receiving party breaks the contract, the pledged goods may be bought back by the supplier or third party logistics enterprise. In this confirmation warehouse model, the receiving

party may not make lump sum payment and can obtain indirect financing; village banks can obtain business income through acceptance bill; when the acceptance bill expires, the supplier can obtain payment in time; the third party logistics enterprise can obtain warehouse, supervision and evaluation expenses.

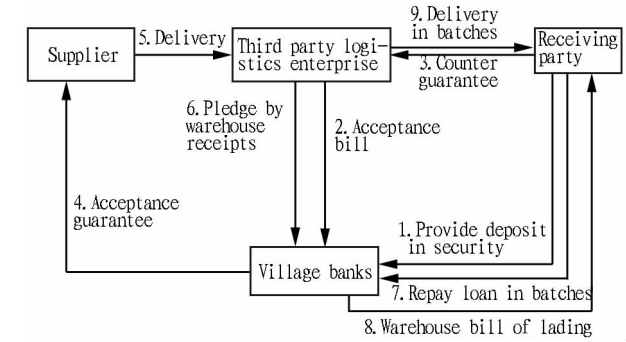


Fig. 4 Confirmation warehouse model

4 Conclusions

Guangxi, situated in the connection area of Southeastern Coastal Economic Belt, Southwest Economic Zone, Central Economic Zone, and ASEAN economic zone, enjoys preferential policies of coastal areas, western development and minority autonomy. In recent years, with Baise City becoming new industrial base and third pole of tourism in Guangxi, Baise City has made outstanding achievements in rapid development of logistics with the aid of scientific and technological and talent advantages of national agricultural scientific and technological park. Besides, Baise City is a model of China’s new rural financial reform. Village banks in Baise City have realized considerable development, mainly manifesting in increase in number, improvement in scale, constant ex-

pansion of services, and strengthening of standardization and regulation. Village banks mainly serve county-wide areas, while financial institutions are reducing in county-wide areas and the service intensity is insufficient. Rapid development of the logistics mainly relies on great support of funds of financial institutions. Therefore, Baise City can draw support from new rural financial institutions, especially village banks, to develop the logistics finance.

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