# Research on the Influence of Financial Digital Innovation on Small and Micro Enterprises

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Abstract: In recent years, digital economy has been deeply integrated into all fields of economic society, becoming a crucial engine to drive modern economy. Demand for online financial services is growing fast, for example, traditional financial services - credit, insurance and wealth management are operated via non-contact methods. In post-epidemic period (COVID-19), it is difficult for small and micro enterprises to obtain support from financial institutions through traditional financial models due to their light assets and lack of traditional mortgages and pledges. Therefore, they frequently encounter difficulties in operations. Under the background, this study focuses on analyzing how financial industry supports small and micro enterprises, and improves availability of financial services by digital means. Specifically, it selects supply chain bill platform as research case. Then, it describes significant role of supply chain bill in financing of small and micro enterprises from the perspective of innovative value of supply chain bill.

### 1. Introduction

Financial digitalization is a reform measure that helps financial enterprises apply digital technology to business and management, to complete transformation of business model, reshape and upgrade organizational structure, as well as strengthen corporate culture.[1] In this era, financial digital technology is accelerating. Digital transformation endows enterprises and employees with new skills, and releases huge potential in helping enterprises break through business boundaries and expand new markets. With support of national policies for digital transformation of financial enterprises, it is expected to improve services, efficiency and products of financial enterprise. At the same time, it will overcome issues such as service homogeneity, high customer acquisition costs, and online and offline collaboration difficulty.

Affected by economic downturn, small and micro enterprises in China face difficulty in taking a step. Problems in management system, talent allocation and capital evolve into main obstacles to apply information digitization. Without support for information digitization, most small and micro enterprises are troubled by extensive management, confused personnel functions, and low economic benefits, weakening their competitiveness in market thereby. They are easy to go bankrupt due to competition between large and medium-sized enterprises, which seriously restricts future

development.[2] Currently, financial digital transformation of various industries develops fast, so this is imperative opportunity for enterprises. Although there will be challenges, enterprises must make adjustments, in order to develop further and follow the wave of financial digital innovation.

# 2. Case study on Impact of Financial Digital Innovation on Small and Micro Enterprises - Supply Chain Bill Platform

### 2.1 Financing Environment for Small and Micro Enterprises

Generally, small and micro enterprises have fixed products and single services, so their credit is risky. General financial institutions, especially banks, cannot meet financing needs of small and micro enterprises. In reality, line of credit for small and micro enterprises is small. Consequently, enterprises cannot obtain enough funds for production. Furthermore, product demander will default on payment for goods or service fees of small and micro enterprises due to long capital chain and other reasons. In return, funds needed for production cannot be supplemented in time, which leads to bankruptcy of many small and micro enterprises.[3]

### 2.2 Value of Supply Chain Bill

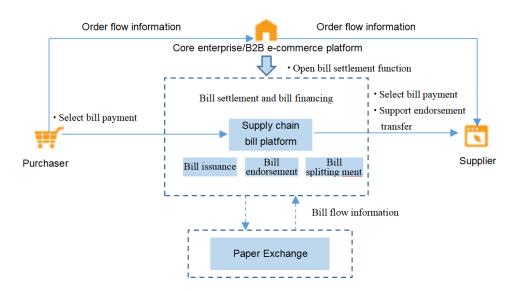


Figure 1: Operation Mode of Supply Chain Bill Platform

Digital bill is a typical representative of financial digital innovation to cope with above problems. Shanghai Commercial Paper Exchange actively promotes commercialization of accounts receivable, builds and develops a supply chain bill platform. Relying on electronic commercial bill system, supply chain bill platform docks with supply chain finance platform, to provide enterprises with functions such as issuing, accepting, endorsing, expiration processing, and information services of electronic commercial bills. Briefly speaking, supply chain bill refers to electronic commercial bills issued through supply chain bill platform. The platform is one important measure to facilitate commercialization of accounts receivable. It helps normalize and standardize accounts receivable among enterprises, optimize structure of accounts receivable of enterprises, and improve turnover rate and financing availability of accounts receivable in SMEs. Based on credit of core enterprises, supply chain bills pledge financing of accounts receivable of small and micro enterprises, or provide sufficient cash supplement.[4] It revives development of small and micro enterprises, and supports stability of supply chain of core enterprises. In this context, financial institutions reduce

credit risk level for small and micro enterprises, and transfer risks to core enterprises. This is called threefold wins since they obtain financial fees, interest and other incomes, thus injecting vitality into sound development of economy.

Innovative development of supply chain bill platform encourages banks and financial institutions to make new breakthroughs in business models. Small and micro enterprises can realize paperless financing such as data upload, business application, and photography for archiving via remote app terminals. This avoids tedious procedure materials submission, and banks cut personnel investment in offline outlets, reducing costs for financial institutions and enhancing operating efficiency.[5] The operation mode of supply chain bill platform is shown below(Figure 1).

## 2.3 Bill Splitting Financing Transformation

Paper Exchange works with financial institutions to promote transformation of bill splitting financing system. A single electronic bill can be divided into multiple transactions for issuing, acceptance, endorsement, discount, post transfer, etc., from the bottom layer. Bills of core enterprises are split and circulated level by level, split for financing in small and micro enterprises, so that cash flow can be effectively supplemented. This is conducive to development and survival of small and micro enterprises; reduces balance of accounts receivable of small and micro enterprises; cuts possibility of forming bad debts. Financial institutions have earned procedure fees, discount charge and other incomes by providing financing for small and micro enterprises. To some extent, banking business is further expanded.[6]

Compared with traditional bank notes and commercial bills, supply chain bills are characterized by splitting, with minimum face value RMB 1 of a single bill. During circulation, they are combined into any amount in the form of bill group that can be split into sub bill groups for circulation. In settlement of suppliers at all levels, they are split and circulated level by level, penetrating entire supply chain. For example, Enterprise A issues a supply chain bill of RMB 1 million to Enterprise B; Enterprise B can split it into RMB 500,000 and pay it to Enterprises C and D respectively. Or it can be split and circulates in the unit of RMB 1 face value to achieve equal differentiation. Apart from split circulation, supply chain bills can be transferred between enterprises, consolidated and discounted, or issued in interbank market through standardized bills. For example, bills of RMB 100 million can be paid through 100 bills with each value of RMB 1 million.[7]

Through split circulation of bills, core enterprise credit shall be enabled, so as to increase circulation and use of bills in supply chain; lower settlement costs; enable more MSMEs to acquire credit support from large enterprises via bill settlement chain.

# 3. Digital Financial Innovation Supports Development Direction of Small and Micro Enterprises

In order to fundamentally solve financing difficulties of small and micro enterprises, this study proposes there should be support of national policies, implementation of various financial industries, and participation & cooperation of small and micro enterprises in all aspects. Undoubtedly, banks, as main channel of financing, play an essential role. Bank has natural advantages in applying digital financial innovation technology. With the aid of digital banks, small and micro enterprises can develop the following three aspects in accordance with principles of digitalization and legalization.

### 3.1 Develop Supply Chain Finance According to Business Characteristics

Supply chain financial service platform pledges financing of accounts receivable of small and

micro enterprises by virtue of credit of core enterprises. This method increases cash flow and revitalizes development of small and micro enterprises. Supply chain finance under financial digital innovation dynamically collects and processes capital flow and information flow of enterprises in various industries by relying on big data, cloud computing, the Internet of Things, and blockchain technology. Capital guarantee and pledge are innovative, and personalized financial demand services can be provided. This can strengthen predictability and risk disposal ability of small and micro enterprises in different scenarios and links, as well as establish a symbiotic win-win relationship between industrial chain, supply chain and value chain of core enterprises. Additionally, digital supply chain system is able to evaluate authenticity of transactions through electronic payment, and fully play functions of collective credit, reputation protection incentive mechanism and constraint mechanism.

# 3.2 Use Enterprise Digital Credit to Raise Credit Loan

Enterprise data value and digital credit are important indicators for banks and financial institutions to evaluate enterprise credit and verify loan lines, which matter a lot for enterprises. This is conducive to solving credit difficulties of small and micro enterprises due to lack of mortgage or pledge collateral. With development of digital financial innovation, digital banks cultivate innovation vitality of market players by digital credit evaluation standards and technology, which rebuilds investment confidence of enterprises, and makes adoption easier for small and micro enterprises with light assets and technology. What's more, attention should be placed on digital credit and data value. Enterprise business behavior can be organically combined with social credit system, to restrict each other, in order to reduce occurrence proportion of enterprise financial default behavior and risk pressure of digital banks.

In order to give full play to role of enterprise data value and digital credit value, this study suggests that enterprises need to establish a data platform that can collect data in all aspects accurately and efficiently. Moreover, collected data should be classified, arranged and sorted according to varieties; data should be available among departments. Finally, data sharing mechanism may be used to carry out digital innovation and business innovation of enterprises among different departments and businesses, so as to offer efficient financial services for small and micro enterprises.

### 3.3 Focus on Classification and Grading, Improve Risk Management

Classification and grading of small and micro enterprises mean to reasonably classify enterprises by standards, in accordance with data such as assets, finance, business scale, technology, energy consumption and other indicators. Furthermore, indicators of development stage, industry characteristics, and market position should be considered. Big data technology can be introduced to analyze growth and development potential of small and micro enterprises, so as to formulate and provide reasonable credit plans, as well as drive enterprise development.

Classification and grading management are expected to enhance risk management level of financial enterprises, so that financial enterprises, in view of classification and grading results, can formulate the most reasonable risk pricing and risk management strategies immediately. Evaluation indicators of classification and grading management need to be improved in light of market feedback and practical indicators. All external resources should be integrated to accelerate development of professional human capital. Only in this way can risk management level of small and micro enterprises and financial enterprises be enhanced by classification and grading management.

#### 4. Conclusion

Digital bills reconstruct traditional bill business through technical means; release value of data production factors; innovate in service models; promote small and micro enterprises to expand financing services and raise quality and efficiency. In the future, digital economy will be an important driving force of global economy. Digital transformation of financial institutions will help increase their income, expand financing channels of small and micro enterprises, and stimulate development potential and social vitality of small and micro enterprises.

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