The Impact of Fintech on SMEs Financing

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ABSTRACT

Small and micro enterprises are an important part of China's national economy. However, financing is difficult and expensive for small and micro enterprises in the process of operation, which limits the possibility of development. Relevant research focuses on how the emergence of fintech in recent years will help solve the dilemma of difficult and expensive financing for small and micro enterprises. This paper analyzes the risk control in credit loans of small and micro loans from the perspectives of financing structure, financing cost, and financing supervision, hoping to help small and micro enterprises out of the financing dilemma. The paper finds that financial technology can contribute to solving the financing difficulties of small and medium-sized enterprises.

Keywords: *Fintech, Financing for micro, small and medium-sized enterprises*

1. INTRODUCTION

Small and micro enterprises are an important part of China's socialist market economy and a vital engine for promoting national economic development. They play a significant role in increasing tax revenue, raising employment, supporting technological innovation, enhancing urbanization and social stability. According to the National Bureau of Statistics, as of March 16, 2018, China had more than 100 million market players, including 31 million enterprises and 69 million self-employed businesses [9].

A survey conducted by Ant Financial in 2017 involving nearly 50,000 small, medium, and micro enterprises (SMEs) shows that small and micro enterprises are faced with the following three major operating difficulties: 53.8% of the surveyed enterprises believe that they lack mortgage or credit history, and therefore it is difficult to obtain loans and financing; 41.5% of the surveyed enterprises believe that customer default occurs frequently, and the cost of capital advance is high. 32.79% of surveyed enterprises believe that there is a lack of customer sources and that the cost of customer acquisition is high. Thus, difficult, and expensive financing is a huge problem in the operation of SMEs. One concept of "fintech" interprets it as the utilization of new technological improvements to products and services in the financial sector [7]. Research conducted by ERNST & Young suggests that fintech can

be expected to grow rapidly among SMEs due to their willingness to share data. According to the Ernst & Young study, 70 percent of SME customers are willing to share their banking data with other financial services companies. If they do so, it will help them get a better financing deal, selectively and securely [10]. Several studies have revealed that fintech helps SME financing, but this research will be analyzed from different perspectives. This study aims to investigate the positive impact of fintech on SMEs' financing from financing structure, financing cost, and financing supervision perspectives, and feasible recommendations will be provided for SMEs. It hopes it can help SMEs with financing difficulties to a certain extent.

2. OVERVIEW OF SMES' FINANCING SITUATION

First, the financing difficulties of small and micro enterprises are relatively dynamic. At present, the output value of small and micro enterprises in China accounts for 60% of GDP, but it is difficult to obtain financing from financial institutions. Even if financing is obtained, they also face the problem of high financing costs. In fact, from China Banking and Insurance Regulatory Commission's bureau data, in recent years, the total number of SMEs getting loans from banking financial institutions has increased continually, and the growth rate has always been higher than that of large and medium-sized enterprises [1].

YEAR	Large commercial bank			Joint-stock commercial bank			City Commercial Bank			Rural financial institutions		
	balance	percentage	Year-on-year growth	balance	percentage	Year-on-year growth	balance	percentage	Year-on-year growth	balance	percentage	Year-on-year growth
2016	66483.00	32.79	10.45	39194.00	19.33	2.48	45063.00	22.22	21.09	49944.00	24.63	27.31
2017	74225.00	31.80	11.65	42864.00	18.36	9.36	53935.00	23.11	19.69	59971.00	25.69	20.08
2018	71022.00	28.16	-4.32	45652.00	18.10	6.50	62622.00	24.83	16.11	69619.00	27.61	16.09
2019	32571.00	27.92	-54.14	21612.00	18.50	-52.66	17415.00	14.93	-72.19	43207.00	37.03	-37.94
2020	48328.00	31.65	48.38	27660.00	18.12	27.98	22175.00	14.52	27.33	51782.00	33.92	19.85
2021 second quarter	60384.00	34.02	24.95	31063.00	17.50	12.30	24817.00	13.98	11.91	57797.00	32.56	11.62
average	58835.50	31.06	6.16	34674.17	18.32	0.99	37671.17	18.93	3.99	55386.67	30.24	9.50
data soure: banks annual report												

Figure 1 the total number of SMEs getting loans from banking financial institutions

From Figure 1 above, it states that at the end of 2018, the total outstanding loans of SMEs from banking and financial institutions reached 33.5 trillion yuan. At the end of the second quarter of 2021, it reached 47.6 trillion yuan, an increase of 42.09%. In the past 10 years, the average quarterly growth rate of SMEs obtaining loans from major financial institutions was more than 18%, and the growth rate was more than multiple percentage points.

Second, SME financing needs and a strong pro-cyclical economy Statistics show that in the second quarter of 2021, the average loan demand index for Chinese enterprises was 64.6%, down 4.5 percentage points from the previous quarter. The loan demand index for large and medium-sized enterprises was 59.1 percent and 62.3 percent, respectively, while the index for small and micro-enterprises was 72.3%, which was significantly higher than the index for other types of enterprises.From the perspective of the financing demand trend of small and micro enterprises, it basically maintains the same movement as China's economic growth, reflecting a strong pro-cyclicality. At the same time, it also shows from the outside that small and micro enterprises are seriously affected by the external economic environment. To solve the financing difficulties of small and micro enterprises, we should basically maintain the same movement as China's economic growth rate, reflecting a strong pro-cyclicality. At the same time, it also shows from the outside that small and micro enterprises are heavily affected by the external economic environment. To solve the financing difficulties of small and micro enterprises, we should pay attention to the systematic problems of macroeconomic development.

Third, urban commercial banks and agricultural commercial banks are still the main sources of credit funds for small and micro enterprises. Commercial banks are still the main source of credit funds for small and micro enterprises in China's financial system, accounting for about 75% of the total. Among them, the total balance and growth rate of loans to small and micro enterprises by city commercial banks and rural commercial banks are higher than those of other types of banking institutions. From 2015 to 2018, the average quarterly growth rate of loans to small and micro businesses by city commercial banks and rural commercial banks reached 5%, higher than the 2% growth rate of state-owned commercial banks and joint-stock commercial banks. It is worth noting that in the second, third, and fourth quarters of 2018, state-owned commercial banks issued quarterly loans to small and micro enterprises.

3. A COMPARATIVE ANALYSIS OF FINTECH FINANCING MODELS

3.1Definition of fintech

Eduardo Z. Milian, Mauro de M. Spinola, and Marly M. de Carvalho [5] studied the etymology of "fintech" and found that in the scientific literature in 1972, Abraham Leon Bettinger gave the following definition of fintech: An acronym for "financial technology", combining banking expertise with modern management techniques and computers [12].

The dominant role of technology in finance has become so important that there is a term to describe the intersection between the two fintechs. One concept of "fintech" interprets it as the utilization of new technological improvements to products and services in the financial sector [7]. Lin Wenling illustrates the emergence of financial technology and enriches the financing methods of small and medium-sized enterprises by using the platform of "tax-bank interaction" launched by Shenzhen Micro-tax Information Service Co., Ltd. When small and micro enterprises have financing needs, the tax-bank interaction platform can use big data mining technology to obtain relevant data from more than 2000 databases such as tax data, industrial and commercial data, and judicial data after obtaining the authorization of enterprises, and relevant models to analyze these data to make a comprehensive judgment on the situation of small and micro enterprises [4].

Based on the results and combined with the actual situation of small and medium-sized enterprises, financial institutions can provide small and medium-sized enterprises with various forms of loans, such as tax credits, small and medium-sized loans, tax credits, tax credits, and so on. From this perspective, big data in financial science and technology has enriched the

financing methods of small and medium-sized enterprises, and this is mainly because the emergence of big data has changed the understanding of financial institutions about small and medium-sized enterprises. Wang and Li believed that blockchain technology could affect SME financing by affecting their financial management. Blockchain by real-time monitoring the implementation of the contract to avoid small and medium enterprises' credit to customers, funds that cannot be recovered in time. Combined with big data, intelligent contracts can be layered based on passive to predictive changes to improve risk sensitivity and reduce the operational risk of small and medium-sized enterprises, so that small and medium-sized enterprises can obtain more opportunities for loans from banks to solve the problems of fund shortage and financing difficulty [4]. Zhang Haining believes that the main reason for SME financing difficulties is information asymmetry: being unable to match the appropriate financing products and unable to find the appropriate financing channels. Through point-to-point accounting, Blockchain technology makes information more transparent, and it is easy to find the appropriate financing equilibrium point for enterprises, thus helping small and medium-sized enterprises finance smoothly [4]. Lin believes that the blockchain technology in financial technology allows small and medium-sized enterprises to use their own related resources for financing, so that their financing costs fall [4]. Midea has introduced this approach, which is of great significance to reducing the financing costs of small, medium, and micro enterprises with Midea as the core enterprise.

3.2 Analysis of financing structure

The traditional financing model mainly relies on financial institutions, which is a structural model of direct financing between borrowers and lenders. However, financial institutions prefer to lend to large and medium-sized enterprises for risk control, long-term cooperation, and other business objectives, resulting in financing difficulties for small and micro enterprises. In order to alleviate financing constraints, small and micro enterprises prefer network financing channels. The essence of network financing is that borrowers and lenders rely on the network intermediary platform for investment and financing activities. However, because the network intermediary platform cannot handle the risk issue well when the flow of funds increases, it cannot accurately identify the two parties of investment and financing when the access threshold is lowered, which makes the borrowers on the platform unequal in merit and aggravates the risk of the platform.

The fintech financing model cannot only reap the benefits of both while also addressing the issues that it faces. On the one hand, micro and small enterprises in the start-up stage can choose a financing channel more

suitable for their own development, and when they are in the growth or maturity stage, they can choose the traditional financing model led by banks and financial institutions, which seamlessly connects all stages of micro and small enterprises' development; on the other hand, with the help of blockchain technology, credit collection is independent of other intermediary platforms. Blockchain technology has the advantage of data, which can record all the defaults and performance of borrowers and make the data information completely public so that the platform participants can directly understand the credit status of the transaction subject to make better decisions, realize the matching of risks and benefits, and reduce the risk of default.

3.3 Financing cost analysis

The development of China's credit collection system, venture capital system and related legal protection system is not yet perfect, and financing through traditional financing channels may expose MSMEs to extremely high transaction costs. In addition, it is difficult for banks and other financial institutions to make use of the soft information of MSMEs, and they need to design tedious and complicated business processes to control the risks of MSMEs, which may further increase the financing costs of MSMEs. The fintech financing model can reduce the cost of enterprise financing by drawing on blockchain technology and the information technology of the Internet platform. On the one hand, blockchain technology has the characteristics of decentralization, which can reduce the constraints of third-party intermediaries and generate the information of transaction records without credit authentication and credit rating of borrowers by intermediaries, which can directly reduce the intermediary fees and agency fees of small and micro enterprises in the financing process, thus reducing the financing costs; on the other hand, technologies such as big data can provide banks and other financial institutions with On the other hand, big data and other technologies can provide information support to banks and other financial institutions and reduce the business costs of banks. All information in the blockchain is jointly managed by all nodes, which can share the operating costs and relieve banks' capital pressure.

3.4 Analysis of financing Supervision

The financial technology financing model uses blockchain technology to monitor the platform funds in real time. After the two parties sign a smart contract, the borrower can only use the funds for the specified purposes. If the contract is violated, the cost of default will increase. When the investors' funds cannot be recovered due to the smart contract, the smart contract will enforce the loan recovery. If the funds are insufficient, the borrower's collateral will be disposed of

in time, so as to make up for the loss of investors' funds. If the Internet platform illegally raises funds and publishes false targets, each node will not be able to produce a "consensus". This will result in false information validation failures and invalid data. Therefore, the application of block chain technology can ensure the safety of funds in the financing process, prevent illegal fund-raising and other acts, and protect the legitimate rights and interests of investors. In addition, in terms of regulatory issues, the government departments, banks, and other financial institutions are integrated into the model. With the help of the hard information of government departments and financial institutions, the investment and financing parties are screened first, and then the quantitative cloud service platform is connected through financial science and technology so that real-time regulatory information is transmitted on each subject. Finally, through cooperation with financial regulatory agencies and intermediary service agencies, the situation of small and micro enterprises is further followed up to ensure the authenticity of soft information.

4. CONCLUSION

In conclusion, this study aims to investigate the financial technology effects on SEMS's financing. Small and micro enterprises provide vitality for China's socialist market economy. They are one of the most active groups of scientific and technological innovation and are an indispensable part of the national economy. Small and micro enterprises generally face the dilemma of difficult and expensive financing in their survival and development. It is of great strategic significance to solve the financing difficulties and high financing costs of small and micro enterprises, which are the focus of all sectors of society and an important foothold for the practice of inclusive finance. For small and micro enterprises, unsecured credit loans are the most feasible form at present, while the new applications and models generated by fintech provide more effective risk control means for credit loans. With the popularization of 5G, the Internet of Things, artificial intelligence, and other new-generation information technologies, fintech will become an important supporting tool for small and micro enterprises to obtain financial services in the future. In order to make better use of fintech to help small and micro enterprises obtain financing services, the following work should be further done: (1) collect information and data related to small and micro enterprises and their executives more widely and comprehensively; (2) establish a more effective financial ecological service system of financial institutions and industry associations; constantly improve the business modeling level of fintech; more effectively develop relevant characteristics of credit risks of small and micro enterprises in the same industry; and fully tap the value of industry transaction information;

(3) Establish effective machine learning models around different industries; promote the construction level of credit assessment and intelligent risk control, so as to adapt to the constantly changing operation and management environment of small and micro enterprises. As for the limitation of this paper, it lacks empirical studies with data, a model, and a survey. It is suggested that future studies can fill this gap by designing a model and testing the company's data.

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