

Practical path of SME financing problems from the perspective of fintech

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Abstract: *The financing difficulties of small and medium-sized enterprises have always been the main obstacle in the growth process of small and medium-sized enterprises. Meanwhile, the trial and error costs hidden in different stages of development in the growth process of small and medium-sized enterprises are also hindering the development of enterprises. This paper analyzes the enterprise side factors of financing difficulties of small and medium-sized enterprises and the different growth stages of small and medium-sized enterprises that may generate large trial and error costs, and puts forward the scheme of using fintech to alleviate the financing constraints of small and medium-sized enterprises and reduce the trial and error costs of small and medium-sized enterprises from the aspects of enterprises, banks and governments.*

Keywords: *Fintech; Small and medium-sized enterprises; Trial and error cost*

1. Introduction

Since the outbreak of the novel coronavirus at the end of 2019, panic in financial markets around the world has been spreading. Starting from major economies represented by the United States, the stock and bond markets of various countries have fallen sharply successively, followed by sharp turmoil. In March 2020, the US stock market even had circuit breakers several times in seven days, and the overall economic situation of the world was difficult to see a bright future. In the international market, affected by the epidemic prevention and control policies of various countries and the rise of trade protectionism, many countries have adopted import and export restrictions, resulting in a sharp decline in international trade volume and impact on many trade cooperation organizations. In the domestic market, in the early stage of the epidemic, strict epidemic prevention and control measures prevented employees from going to work normally in many manufacturing enterprises, forced production activities to slow down, and reduced the supply level of enterprises. The difficulty of consumers going out to buy goods and services, coupled with the difficulty of resuming work and the decline in income caused by companies laying off workers to cut costs, has led to a decline in consumption activities other than necessary consumption. After the epidemic situation stabilizes, travel restrictions in transportation and a shortage of working capital in the hands of consumers also make it difficult for production and life to return to before the outbreak. In the investment market, investors suffered a setback in confidence under the three major pressures of market panic, financial market turmoil and the decline in domestic and foreign economic expectations, and investment activities slowed down accordingly, and the scale of demand was greatly reduced. Pull our country economy troika all suffers shock impact. The impact of the epidemic on the world economy is unprecedented. Compared with large enterprises, small and medium-sized enterprises have suffered a more severe impact^[1]. On the one hand, the fierce competition in the domestic industry, on the other hand, the weak foundation of small and medium-sized enterprises to fight the impact of the epidemic is insufficient. In order to overcome this difficult period, small and medium-sized enterprises need to deal with the problems in the process of growth. This paper analyzes the two major problems commonly encountered by small and medium-sized enterprises in the process of growth and finds out the way to ease these problems by means of fintech and other means.

2. Overview of SME financing issues

2.1. Financing constraints

Since the Standing Committee of the National People's Congress passed the Law of the People's

Republic of China on the Promotion of Small and Medium-sized Enterprises in 2002, the financing difficulties of small and medium-sized enterprises have become a major problem hindering the development of small and medium-sized enterprises in China. According to the Investment Climate Survey Report released by the World Bank, 75% of non-financial listed Chinese companies listed financing constraints as the main obstacle to corporate growth.

After a lot of research by scholars, it is generally believed that information asymmetry is an important reason leading to the financing constraints of small and medium-sized enterprises. In the financial market, banks and other financial institutions cannot obtain comprehensive information of smes in time, especially in the traditional credit market, such as the lender's credit information, the enterprise's solvency information and the enterprise's financial information. Therefore, when a small and medium-sized enterprise applies for a loan from a bank, it is difficult for the bank to distinguish the credit rating of the lender, the solvency of the enterprise, the risk level of the project invested in the loan and whether the financial information is distorted, and it is difficult to ensure whether the small and medium-sized enterprise will use the loan for other investment projects, and the small and medium-sized enterprise lacks the assets that can be used for mortgage. Under the influence of many uncertain factors, in order to reduce risks and losses, banks will only select a part of small and medium-sized enterprises with minimum risks and high credit ratings, while the remaining part of small and medium-sized enterprises are difficult to obtain funds, which will lead to the financing constraints of small and medium-sized enterprises. To ease the small and medium-sized enterprises financing constraints, we must reduce the small and medium-sized enterprise loan risk assessment level.

According to the analysis from the process of accepting the loan application of small and medium-sized enterprises, the financial information, credit information, project information of small and medium-sized enterprises is imperfect, and the standardization of financial behavior will greatly affect the risk grade assessment of the bank's risk control section on this loan.

2.2. Trial and Error Cost in the growth of small and medium-sized enterprises

The cost of trial and error is the cost of continuous trial and error, which is generally generated in the place of uncertainty. From the beginning of the establishment to the development of a certain scale of listed enterprises, small and medium-sized enterprises are constantly dealing with uncertain affairs, and different solutions adopted by small and medium-sized enterprises may also bring different trial and error costs. The following will analyze the stages in which there may be trial and error costs and will have a significant impact on the different development scales of smes.

First, at the beginning of the establishment of small and medium-sized enterprises. When most small and medium-sized enterprises are established, they are restricted by various factors such as start-up capital, weak enterprise capacity, lack of employees, imperfect management system and lack of product sales, so they are faced with the problem of choosing a specific business in a certain industry for development. But on the other hand is in constant transformation and upgrading to a domestic industry development strategy changes with the government, some industries have been from sunrise industry into the sunset industry, few relevant supporting policies of local government, investors are not willing to put money into the sunset industry, small and medium-sized enterprise is difficult to have a bright development prospects and the early development support. The rapid development of the domestic new energy vehicle market in recent years is inseparable from the strong support of the government, and some manufacturing enterprises have even been ordered to close down by the government for rectification due to pollution problems. On the one hand, the market of some hot industries may be in a saturated state, and the competition between enterprises is particularly fierce. Without the support of high and new technology and high-quality products, it is difficult to break through the encircling and enter the front end of the industry. Inappropriate selection of smes at this stage will increase the difficulty of their initial development, which may lead to their inadequate use of existing resources, weak capital chain, lack of policy support from the government, and long-term disadvantage in industry competition. All these adverse conditions will prompt the closure of fledgling smes.

Second, smes internal management and resource allocation optimization stage. After a period of development, the cash resources, human resources and industrial scale of small and medium-sized enterprises have increased to a certain extent, and the internal management structure is more perfect. In order to further expand the scale of enterprises and occupy more market shares, and with the increase of enterprise departments, the growth of enterprise resources cannot well match the growth of

departments and employees. Therefore, smes will reallocate resources according to the current internal structure of enterprises and optimize the internal management system of enterprises. At this stage, small and medium-sized enterprises may not have a comprehensive understanding of their own information due to their small size, and mistakenly weaken the relationship between primary and secondary departments in resource allocation. Limited resources are uncoordinated allocated to secondary departments, resulting in lower resource input of key departments than other enterprises in the industry. The trial and error costs caused by resource allocation incongruity will be amplified rapidly over time. And the average core competitiveness between small and medium-sized enterprises in the industry gap. Similarly, the internal management of small and medium-sized enterprises may also produce negative optimization due to inadequate understanding of the enterprise itself, resulting in the decline of enterprise management efficiency, production efficiency and scientific research efficiency. These negative effects will not have direct and obvious negative effects on the business and development of the enterprise in the short term, but will rapidly magnify the trial and error costs over time. Such trial-and-error costs are characterized by deep hiding, long cycle and imperceptible. When enterprise managers realize the problems, the competitiveness of enterprises in the industry has decreased, and the development of enterprises is difficult in disguise.

Third, the business object of small and medium-sized enterprises. In the financial statements provided by the companies that are expected to be listed approved by China Securities Regulatory Commission, many companies have the problem of collection difficulties. From the analysis of enterprise financial statements, collection difficulties seriously affect the cash flow of these enterprises to be listed. On the one hand, the amount of notes receivable and accounts receivable is extremely high, and the cash flow and current assets are extremely mismatched. On the other hand, the number of short-term loans is high, and the debt repayment pressure of enterprises is great, which greatly delays the development of enterprises. This part of the transaction amount failed to pay as scheduled has brought immeasurable losses to the enterprise. The strong enterprises in the preparatory stage of listing still have such problems, and the small and medium-sized enterprises in the development are also very likely to encounter the problem of collection difficulties. When generating business with other companies, they encounter enterprises that have been in arrears for a long time. Although the number shown in the financial statements of the enterprises is gratifying, the accounts receivable that have not been paid for a long time have generated immeasurable time costs to small and medium-sized enterprises, which may lead to turnover difficulties and the dangerous situation of carrying high debts in order to maintain the daily operation of the enterprises. Such trial-and-error costs are terrible and unaffordable for small and medium-sized enterprises with insufficient capacity.

3. Mitigation path

Fintech is based on a series of technological innovations such as big data, cloud computing, artificial intelligence and blockchain. It is characterized by high efficiency, low cost, comprehensive system and strong applicability when applied to six basic financial fields such as payment and clearing, lending and financing, wealth management, retail banking, insurance and transaction settlement. Integrating fintech into the basic business, information management, etc. between smes and banks may help alleviate financing constraints. From the perspective of mechanism path of fintech to alleviate financing constraints of smes, fintech can achieve the effect of alleviating financing constraints by optimizing direct and indirect financing system and micro path such as reducing enterprise financing cost and improving enterprise transparency^[2]. The financial information, credit information, project information and standardization of financial behavior of small and medium-sized enterprises all belong to micro information, so small and medium-sized enterprises can use fintech to establish a basic enterprise information database, and collect various business information, income information, expenditure information and lending information of small and medium-sized enterprises in the development process into the database. Through the establishment of a perfect database, on the one hand, the stored information can be systematically sorted out, the circulation process of each payment can be fully sorted out, and the transparency of small and medium-sized enterprises can be improved, so that banks can objectively distinguish and analyze the loan capacity of small and medium-sized enterprises when reviewing small and medium-sized enterprises. Under the influence of the epidemic, the introduction of fintech into daily work can cushion the situation of small and medium-sized enterprises almost paralyzed when employees stop work due to illness, improve the work efficiency of employees who have not stopped work to complete the most basic daily operation work, and reduce certain costs. On the other hand, small and medium-sized enterprises of the whole enterprise development information and detailed information of the master to help small and medium-sized

enterprises at present stage in the management of optimization, the optimization of resource allocation, industry transformation can avoid the management of the enterprises are not fully understanding and lead to negative optimization, the allocation of resources not harmonious, the hidden cost of trial and error reduced to an acceptable range of small and medium-sized enterprises. The widespread popularization of fintech in enterprises is conducive to the development of regional fintech, which can effectively stimulate the expansion and investment of enterprises and alleviate the financing constraint pressure of enterprises^[3]. At the same time, the development of regional fintech can ease the degree of information asymmetry between financial institutions and enterprises, thus reducing the financing constraints of enterprises in terms of "quantity" and optimizing the allocation of credit resources in terms of "quality", thus promoting the improvement of enterprises' total factor productivity^[4]. The improvement of production efficiency will help smes enhance their competitiveness in the industry, and the enhancement of competitiveness will make it easier for smes to obtain financing, further forming a virtuous circle.

Under the influence of the epidemic in three years, except for the medical industry, most industries at home and abroad have fallen into a trough. Many investors have chosen to withdraw from the financial market and retain their funds, and the circulating funds in the market are facing the risk of shortage and insufficient supply. Fintech uses the deep learning model of artificial intelligence to take the information of different types of investors in the securities market, their investment preferences and risk preferences as data sources. After full learning, fintech can intelligently judge the investment preferences of a bank customer. Based on this, the bank can propose targeted investment services to develop the customer into an investor and promote more capital to flow into the financing market. In this way, the possibility of successful financing of small and medium-sized enterprises and the number of loanable amount will be increased. Banks can also integrate fintech into their basic businesses, improve their operation and management efficiency, and speed up SME financing review and lending.

Financing constraints put a brake on the enterprise research and development activities, the local government's intervention to improve the research and development of the enterprise level of subsidies and increased research and development support, reduces the costs and risks of enterprise development, alleviate the enterprise financing constraint problem, financing constraints on government intervention and regulation of the relationship of corporate r&d input is weakening^[5]. In the domestic financial system, banks as financial intermediaries, are influenced by the financial market on the one hand and controlled by the government on the other hand. In addition to the bank on the market at the same time the other financing way of the good and bad are intermingled, on the financing platform companies and investors information distortion degree is high, the market is in a mess, is difficult to discern between true and false. Local governments can cooperate with regional banks to establish a financing trading platform for small and medium-sized enterprises through fintech with banks as the main body and other financing institutions as the auxiliary, and incorporate small and medium-sized enterprises within their jurisdiction into the financing trading platform. Banks can take advantage of the platform for small and medium-sized enterprise basic grasp of the phased development of information and also able to integrate the development process of periodic information comprehensive data, can ease the small and medium-sized enterprises and Banks and other finance institutions of information asymmetry, and shortened the small and medium-sized enterprises review time with the bank of information collection, accelerate the speed of financing. The government can also use the margin trading platform on the market of small and medium enterprises to carry out macro control, combining with the national development strategy appropriate guide the transformation of the small and medium-sized enterprise development direction and corresponding supporting policies are put forward.

Fintech's vast databases and information processing capabilities also provide strong support for smes in the trading market. In our country, the irrationality of a bill means that any holder after the first-hand holder may unconditionally ask the drawer for money. Demand for cash flow in the different enterprise each are not identical, to the enterprise, hold a lot of notes receivable, accounts receivable to trade through the notes will be part of the notes receivable transfer to other companies in return for cash flow. Conversely, firms with large cash flows can not only deposit excess cash in banks or invest it, but also buy bills to pay for subsequent business. When small and medium-sized enterprises hold high bills and low cash flow, they can enter the exchange market to trade bills, and the bill market can use financial technology to find suitable buyers for small and medium-sized enterprises, so as to accelerate the liquidity of the bills receivable held by small and medium-sized enterprises and reduce the pressure of short-term debt caused by the shortage of cash flow. Reduce the opportunity cost of business income due to late payment. In the current domestic market, it is necessary for enterprises to hold more cash than before, and the high liquidity supported by fintech is conducive to the stable development of small and medium-sized enterprises.

4. Conclusion

At present, although China's epidemic policies have been liberalized and production and life have gradually gotten on the right track, the economic situation is still unsatisfactory. Most people are weak in investment and still choose to keep their funds in their own hands rather than invest in the financial market. At the same time the arrival of the next wave will also impact again for the production and life activities of the whole society, the development of small and medium-sized enterprises are still faced with many difficulties. Use fintech to improve the transparency and competitiveness of small and medium-sized enterprises, optimize the work efficiency and management ability of banks, connect local governments, small and medium-sized enterprises and local banks to guide the financing and industrial upgrading and transformation of small and medium-sized enterprises from the macro level. Only with the joint efforts of the three parties and the application of fintech to their respective parts, can smes grow up step by step in the current economic market and effectively alleviate the financing constraints of smes.

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