Research on the Financial Services of Small and Medium-sized Micro-enterprises from the Perspective of Big Data

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Abstract: With the development of China's market economy, a large number of enterprises have emerged in China. In order to facilitate the management of the market, the state divides the enterprises into several levels according to their scale, so as to facilitate the formulation of corresponding policies according to different enterprise scales. In order to expand the scale of enterprises and promote the development of enterprises, small and medium-sized micro-enterprises are often in need of financing. In financing activities, they often encounter financing difficulties or expensive financing problems. Moreover, due to the lack of fixed assets and the low credit of enterprises, they often encounter obstacles when carrying out loans and the amount of loans is small. The difficulty of loans also exists in the financial services of small and medium-sized micro-enterprises. This paper studies the financial services of small and medium-sized enterprises from the perspective of big data, and puts forward some effective ways to improve the financial services of small and medium-sized enterprises.

1. Introduction

There are many management problems in small and medium-sized micro-enterprises, mainly due to the non-standardized management and imperfect system, which also restricts the sTable development of small and medium-sized micro-enterprises. Because of insufficient financial management, small and medium-sized micro-enterprises also lack the ability to control their own assets and funds, and also lack the ability to assess the potential risks of the market. Once the capital chain is broken in operation, the normal operation of enterprises will be affected, and bankruptcy risk will occur in serious cases. The factors affecting the development of small and medium-sized micro-enterprises are not only the insufficiency of enterprise management, but also the difficulty of financing and loans, which makes it difficult for these enterprises to develop and grow. Under the background of big data era, these enterprises are supposed to summarize their previous work, introduce the application of big data technology, improve the relationship between financial services and banks through the massive analysis of information resources, enhance the credit of enterprises, ensure the information symmetry between enterprises and banks, and then contact the restrictions on the development of enterprises in terms of funds.

2. Factors Affecting Financing Activities of Small and Medium-sized Micro-enterprises

2.1 Non-standard Management Reduces the Credit of Enterprises

Small and medium-sized micro-enterprises are short of time and scale, and are in the lack of business operation and management. Especially, the management mode of small enterprises is often based on family. This not only affects the further development of enterprises, but also causes the problem of weak or even lack of financial management ability. Lack of scientific and standardized enterprise management will result in insufficient information in finance and operation, confusion in financial management and lack of advanced management mode, which will not only affect the earnings of enterprises, but also affect the credibility of enterprises due to arrears of funds and fraudulent financial data. In addition, when banks evaluate their credit, the limited size, less fixed assets and the lack of corresponding credit guarantee will reduce the bank's evaluation of the credit

of enterprises, thereby reducing the amount of loans. In the process of credit evaluation, enterprises need to account for their own assets. Since they lack complete and accurate understanding of their own relevant business information, in the collection, collation and analysis of information resources, they need to invest a lot of human resources and time resources. Even if they entrust professional firms to check information, they also need to invest a lot of funds, which also increases the cost of financing activities.

In recent years, more attention has been paid to the improvement of science and technology in the national development, leading to the emergence of a large number of small and medium-sized micro-enterprises of science and technology in the market. These enterprises also contain individuals with greater development potential. The core technology of enterprises has market competitiveness, but they lack the support of funds greatly. However, when choosing investment projects, Chinese investors are often with subjectivity, pursuing only short-term interests but not paying attention to long-term development, which also makes it difficult for these small and medium-sized micro-enterprises of science and technology to raise funds. The root cause of this problem is unsound mechanism of venture capital in China and investors' knowledge of venture capital. Moreover, enterprises lack strong data and information support, thus lacking the right to speak, which makes it difficult to form a new attraction for investors.

2.2 It is Difficult to Guarantee the Credit Information Quality of Small and Medium-sized Micro-enterprises

The phenomenon of low credit rating of small and medium-sized micro-enterprises is also caused by the lack of credit information. Because China has not yet formed a complete and sound credit information system. In addition, the third-party auditing agencies lack strong credibility and is not enough to guarantee the enterprises, resulting in the lack of trust in the relevant information provided by banks. Especially for some small and medium-sized micro-enterprises which are not formal enough, there are serious credit problems in their operation. Because of lack of credit consciousness, they often default on the funds of cooperative enterprises in their operation, and there are also illegal means of operation. These also cause banks to lack trust, and then make enterprises have poor credit rating when applying for loans. Moreover, in the loan business, the higher risk enterprises, the more willing to pay high costs to obtain loans. While the banks lack the ability to supervise and recover funds. Once the problems of borrowers absconding and enterprise bankruptcy arise, it is difficult for banks to guarantee their own economic interests are not damaged. As a result, banks often refuse to apply for loans in order to avoid potential risks.

2.3 There is a Lack of Regulation of Financing Market

At present, China lacks a more perfect management system for the financing market, and has not formulated corresponding laws to restrict private financing. When small and medium-sized micro-enterprises are financing, the lack of third-party guarantees makes it difficult for them to get enough credit from banks. This also makes these enterprises can only borrow from private financiers. These loan projects often cost more than normal loans, which increases the financing cost of enterprises. The lack of standardized management of the financing market on the one hand affects the development of enterprises, on the other hand, damages the development of small and medium-sized financial institutions.

2.4 Make Science and Technology Insurance of Scientific and Technological Enterprises Play a Practical Role

In order to promote the development of small and medium-sized micro-enterprises of science and technology, China has also put forward corresponding countermeasures. Science and technology insurance is formulated to improve the credit rating of small and medium-sized micro-enterprises of science and technology. Enterprises use internal technology as the guarantee to apply for loans to banks, and then obtain higher amounts of loans. But in practical application, the application scope of science and technology insurance is small. Take Shanghai as an example, only 14% of small and medium-sized micro-enterprises of science and technology participate in

insurance, and some corresponding subsidy policies and regulations are not effective, which affect the financial services of small and medium-sized micro-enterprises.

3. Ways to Improve the Level of Financial Services of Banks to Small and Medium-sized Micro-enterprises

3.1 Strengthen the Ability of Collecting Credit Information by Using Big Data Technology

The important reason that affects the financial services of banks to small and medium-sized micro-enterprises lies in the unequal information. Banks cannot grasp the accurate credit information of enterprises while enterprises cannot provide complete business information. Therefore, in order to improve the financial service level of banks to these enterprises, it is essential to first solve the problem of information inequality. Large data technology can provide massive data information, and access to information resources has been increased. Through cloud computing and other technologies, banks are able to understand the real purpose of enterprise lending through the analysis of relevant information, and grasp the real business situation of enterprises, so that banks can accurately grasp the credit information of enterprises, correctly carry out credit rating and provide sufficient funds for the development of enterprises. Banks are supposed to cooperate fully with relevant government departments to establish a large data platform, which ensures diversified data collection and support the analysis of credit information through a large amount of data. In order to establish a large data platform, it is necessary to take the principle of ensuring users' privacy, keep enterprises' information strictly confidential, collect business information on the basis of information confidentiality, collect information such as water and electricity fees, tax records, income and expenditure status of enterprises, and analyze it from many aspects, so as to understand the real situation of enterprises and grasp the credibility of enterprises. With the rise of e-commerce, the operation of enterprises is often inseparable from the Internet. Therefore, banks need to cooperate with the Internet technology departments, excavate the historical records of enterprises from the network, analyze the development potential of enterprises from the perspective of consumers, understand the value of enterprises' products through browsing volume and search volume, and then improve the accuracy of enterprises' risk resistance assessment. The state should formulate more perfect financing market management mechanism, formulate corresponding laws and regulations, enhance the credibility of third-party guarantee institutions and standardize the loan standards of private financial institutions, so as to realize effective linkage among banks, private financial institutions and third-party guarantee institutions, enhance the application level of big data technology, and provide data support through big data technology. The sharing of information resources, which can provide supplementary data information for credit business, not only guarantees the quality of financial services for small and medium-sized micro-enterprises, but also helps to expand the development scale of large data information flat belt. The establishment of large data information platform is also conducive to the role of science and technology insurance. The sharing and analysis of data information gives a correct assessment of the technology of small and medium-sized micro-enterprises of science and technology, which is conducive to improving the loan quota of enterprises.

3.2 Construct a Perfect Framework for Big Data Financial Services

The government and banks are expected to work together to improve the application effect of big data technology by formulating corresponding financial service standards and building a sound framework for big data financial services. The whole financial service framework should take the big data information platform as the core, establish the corresponding big data resource database according to the types of information resources, understand the operation status and business content of enterprises and institutions through information acquisition channels such as network browsing, mobile app, public number, and collect data on information resources such as financing requirements, product information, enterprise management mode, enterprise revenue and expenditure, etc. Cloud computing completes data collation and analysis. The analysis data can be

shared with banks, relevant government departments, third-party guarantee agencies and insurance companies, which can ensure the smooth development of financial services. Data analysis can be gradually expanded according to the scope, such as first analyzing the level of enterprises' operation level and management mode in local enterprises, then comparing with peers in other regions, or expanding the scale of analysis to the whole country and conducting national large-scale data analysis, so as to more accurately understand the development level and development potential of enterprises, and then to accurately

3.3 Establish a Crowd Sourcing Platform Based on Big Data Technology

On the basis of big data technology, it is possible for us to set up a platform to ensure the comprehensive analysis of financing projects, to ensure the accuracy of the analysis data, and to give a correct assessment of the development potential of enterprises. Then the data after analysis are shared with banks, private financing institutions and the public. Through the crowd sourcing platform, the risks faced by the financing project are displayed in the form of pictures and videos, and the risk level is assessed. Finally, crowd sourcing is completed. In this way, it not only can provide sufficient funds to help small and medium-sized micro-enterprises to follow-up development, but also can effectively reduce the financing risk, reduce the cost of financing, and improve the efficiency of financial services.

4. Conclusion

In summary, the application of big data technology is conducive to improving the level of financial services for small and medium-sized micro-enterprises, effectively reducing their financing costs, improving the financing efficiency, reducing the risks that banks need to undertake in financing activities, and further promoting the economic development of the country.

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