

Research on the Innovation of Financing Models of Small and Micro Enterprises in the Context of Big Data

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Abstract-Small and micro enterprises are important economic entities in the development of China's national economy, and they are also the backbone of the employment problem for the general public. To effectively innovate the financing model of small and micro enterprises has become the main reason for the expansion of small and micro enterprises. Therefore, based on the background of big data, this article conducts an innovative research on the financing model of small and micro enterprises, and conducts in-depth exploration and analysis of the financing model of small and micro enterprises under the current traditional financial mode. Combined with big data technology, small and micro enterprises can innovate and optimize the financing model to promote the healthy and orderly development.

Keywords-big data finance; small and micro enterprises; financing model; innovation

1. INTRODUCTION

Nowadays, big data finance has gradually covered the entire financial field. In the process of impacting the traditional financial industry, many innovative financial products have also been derived. To a certain extent, big data finance has risen to a whole new level. At present, more than 95% of enterprises in China are small and micro enterprises. These small and micro enterprises have played an extremely important role in economic growth, social harmony, and technological innovation. However, under the traditional financial model, small and micro enterprises face many financing difficulties, which also largely limit the growth and expansion of small and micro enterprises. The gradual emergence and rise of big data finance has provided new channels for the financing and development of small and micro enterprises. It not only has higher flexibility, but also has more configurable resources, which provides favorable conditions for the financing and development of small and micro enterprises.

2. ANALYSIS OF THE FINANCING MODE OF SMALL AND MICRO ENTERPRISES UNDER THE TRADITIONAL FINANCIAL MODE

2.1 The Status Quo of Small and Micro Enterprises Under the Traditional Model

According to the Small and Micro Enterprise HP Index, more than 63% of small and micro

enterprise loan products have monthly interest rates higher than 2%. About 90% of microfinance companies and P2P platform products have monthly interest rates higher than 2%. If the monthly interest rate of 2% is converted into an annual interest rate, it can reach 24%, which is significantly higher than 4 times the one-year loan interest rate of 6%. From the perspective of small and micro enterprises, the average life span of their operations is only 2.9 years, which means that about 30% of small and micro enterprises close down every year. Among the 30% of the small and micro enterprises that closed down, 41% of them closed down because of a broken capital chain. Therefore, lack of funds and financing difficulties are the main factors restricting the development of small and micro enterprises [1]. At present, the financing needs of small and micro enterprises are 800 billion yuan per year, and their financing needs continue to grow as the country's economy grows. Therefore, the occurrence of unsmooth financing channels and broken capital chains is not only unfavorable to the adjustment and optimization of the corporate structure, but also affects the harmonious and stable development of society.

2.2 Foreign Financing Analysis of Equity Financing of Small and Micro Enterprises

- Insider equity financing

Under normal circumstances, all the funds of small and micro enterprises in the early stage of business start-ups are basically from family or relatives and friends. Because the scale of the company is limited, it is relatively unrealistic to obtain funds from other channels. Because it is not listed, it is impossible to obtain external equity financing from the stock market [2]. However, the phenomenon of information asymmetry has played a decisive factor in this process, so small and micro enterprises are carrying out external equity financing. There are two main methods adopted. One is to choose entrepreneur friends, which can be family members and extensions. The second is the internal employees of the enterprise. Because these two financing methods do not have the problem of information asymmetry, they can also obtain more support in the financing process.

- Angel capital and venture capital

Angel investment is generally an early investment in high-risk, high-yield innovative companies by experienced investors. These investors generally have relatively high abilities and desires, and their entrepreneurial experience is relatively rich, so they are more inclined to high-risk and high-return projects. Although the amount of investment is small, it is of great significance to small and micro enterprises in the early stages of entrepreneurship. In recent years, as China's market system reform process continues to deepen, angel investment has gradually been accepted and recognized by people, and its scale has become larger and larger [3]. From the perspective of entrepreneurs, both experience and capital need to be supported by angel investment in the entrepreneurial process. Therefore, in the future development process, angel investment can provide more sufficient funds and development space for small and micro enterprises.

- Small and medium-sized Enterprise Board and GEM financing

With the gradual improvement of the multi-level stock system, the financing channels for small and micro enterprises have also been expanded. In such an environment, the growth enterprise market not only provides effective financing channels for small and micro enterprises but also

promotes the standardized development of small and micro enterprises. At the same time, the expansion of equity financing for small and micro enterprises has laid a good foundation for equity financing for SMEs to a large extent. However, because the multi-level stock market has been established for a relatively short period of time and has not yet fully developed and matured, small and micro enterprises are very limited. If small and micro enterprises want to go public, they must meet the profitability standards required by the ChiNext. However, most small and micro enterprises have difficulty meeting this standard (see table 1). In addition, most small and micro enterprises still meet the basic conditions for listing on the SME board and the ChiNext both in terms of asset scale and sales revenue. Therefore, financing on the SME board and ChiNext can only solve the financing problems of a small number of small and micro enterprises.

Table 1 Quantitative standards for GEM issuance

The first set of standards	The second set of standards	Other standards
In the past two years, profit and total net profit is not less than 10 million yuan.	In the last year, the profit status and the net profit is not less than 5 million yuan, and the operating income is not less than 50 million yuan. The operating income growth rate in the last two years is not less than 30%.	Net assets before issuance shall not be less than two ten million yuan at the end of the last year. There were outstanding losses.

2.3 Endogenous Financing of Small and Micro Enterprises

- Internal cash flow management of small and micro enterprises

The focus of financing for small and micro enterprises is the source of funds, and small and micro enterprises will generate a certain amount of internal cash flow in their daily operating activities [4]. However, when small and micro enterprises want to raise funds, it is basically the phenomenon that the company has broken the capital chain or has difficulty in capital turnover. Therefore, for small and micro enterprises, in the process of development, they should fully combine their own development needs and current situation to formulate scientific and reasonable dividend distribution policies and taxation plans. At present, the internal cash flow management of small and micro enterprises mainly includes corporate retained earnings, depreciation of fixed assets, and tax planning. From table 2, the main position in the financing channels of small and micro enterprises is the internal financing accounting for 48.46%, indicating that compared with external financing methods such as bank loans, issuance of stocks and bonds. Endogenous financing is more favored by small and micro enterprises.

Table 2 Financing channels for small and micro enterprises

Index	Indicator status	Small and micro businesses
The first way to raise	Bank advance	33.87%
	Issue of shares or bonds	2.21%
	Private funds accumulated by	46.255

the enterprise		
	Introduce foreign capital or acquire merger with other enterprises	5.69%
	Four of the four state-owned commercial banks	69.36%
Financing channel	Joint stock bank	4.85%
	Loans from local banks and credit cooperatives	5.365
	Internal profit retention	19.32%
	Lease	0.81%

- Liquidize remnant assets

In fact, during the development of small and micro enterprises, due to lack of management experience or changes in the market environment, the risks of idle assets, bad debts, and inventory backlogs of the enterprise are greatly increased. The most significant manifestation is the greater liquidity of funds, which not only restricts the development pace and operational efficiency of small and micro enterprises, but also leads to greater pressure on the turnover of funds for small and micro enterprises to a large extent. Therefore, in many cases, small and micro enterprises need to make certain efforts to expand the scope of endogenous financing, so as to minimize their dependence on external financing. From the perspective of small and micro enterprises, the revitalization of stock assets generally includes asset divestiture, inventory pledge financing, cash management, and accounts receivable management. It can be said that revitalizing stock assets is an important means to reduce the financing risks of small and micro enterprises.

- Internal corporate debt

Enterprise internal debt financing is the most widely used endogenous financing method for small and micro enterprises at this stage. For small and micro enterprises, once they choose the internal debt financing method, it means that they have basically lost the ability of external financing, and the business risk of the enterprise is also increasing. However, there are also some small and micro enterprises that use debt financing interest rates lower than private financial interest rates. The method of attracting funds higher than bank deposit interest rates and treasury bond interest rates can reduce corporate financing costs while achieving higher investment returns.

3. INNOVATION OF THE FINANCING MODE OF SMALL AND MICRO ENTERPRISES UNDER THE BACKGROUND OF BIG DATA

3.1 P2P Network Lending and Financing Model

P2P financing is based on Internet + finance and derives a new lending model, which can complete lending through a point-to-point, person-to-person way. It meets the financing needs of small and micro enterprises. Generally, P2P network loan financing is realized by bidding to raise funds, and the provider of funds is composed of multiple people. Both parties adhere to the principle of equal resources. Financing risks is diversified with a win-win situation. The

financial platform only needs to charge a certain commission. This model is more easily accepted by small and micro enterprises [5].

Such a financing model can not only broaden the financing channels of small and micro enterprises and allow them to obtain more development funds, but also has certain characteristics of openness and transparency. The interest rate is much lower than that of private lending. According to the ‘P2P Online Loan Industry July 2019 Monthly Report’, the historical transaction volume of the P2P online loan industry has reached 90.028 billion yuan. Compared with the previous month, it increased by 647 million yuan, an increase of 0.72% from the previous month. At the end of July 2019, the cumulative transaction volume of the P2P online loan industry reached 8.69 trillion yuan. The specific background is shown in figure 1.

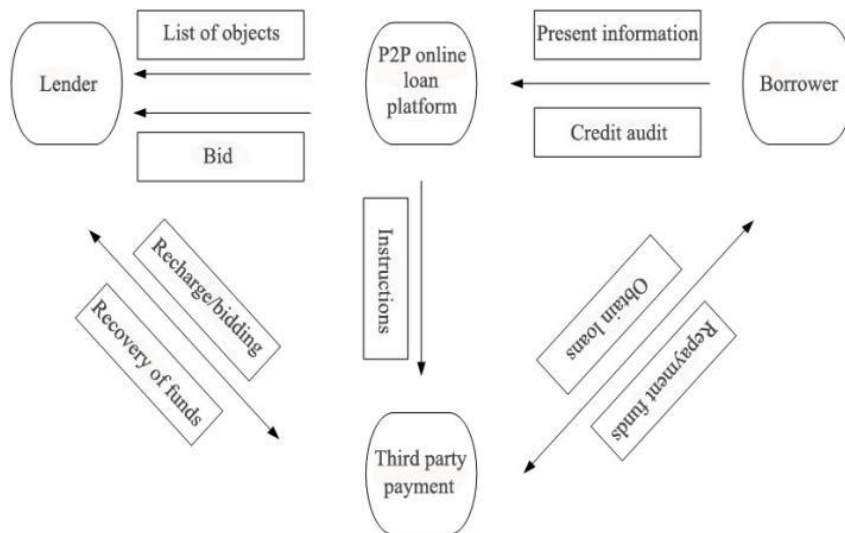


Figure 1 P2P online lending platform

3.2 Big Data Financing Model

Under normal circumstances, the big data financial model is mainly for online trade Internet small and micro enterprises and entrepreneurs, such as *Taobao*, *Tmall*, *JD* and other e-commerce platforms small and medium sellers. The amount of financial services mainly depends on the seller’s daily transaction data. E-commerce companies generally record the business and credit information of merchants in detail and accurately in the process of platform operation, so as to obtain corresponding transaction data and fund data. E-commerce companies further analyze these data to form a certain reference standard to evaluate the credit rating and capital risk of small and medium sellers. Such a financing model is very important for small and micro enterprises. It can not only meet the capital needs during the business operation period, but also promote the stable development of small and micro enterprises. It can be said that the big data financing model gives full play to the advantages of Internet finance, not only achieving good communication between lenders and enterprises, but also meeting the funding needs of small and micro enterprises to a large extent.

3.3 Crowdfunding Financing Model

The crowdfunding model is a new financing model that has emerged in recent years known as the public financing model. It means that small and micro enterprises use Internet platforms to publicly raise funds from the society by making appointments or group purchases. The advantage of the crowdfunding financing model is that the review procedures are relatively simple, and the industries that can be involved are relatively wide. Small and micro enterprises only need to register corporate information on the platform and release financing projects and return investors. In this way, it is convenient for investors to know the progress and return of the project at any time to determine whether or not to participate in the investment. In fact, this financing model has provided financial assistance to many entrepreneurs and small and micro enterprises with dreams. As long as the public recognizes this project, they can directly inject funds through the platform [6].

3.4 Supply Chain Financial Financing Model

The financing model of supply chain finance refers to the financing business platform based on the development potential of small and micro enterprises and the analysis and research of basic information. Refer to the transaction data of consumer enterprises and the supply chain of enterprises, it can conduct comprehensive evaluation and judgment, and fully understand their credit risks and operating conditions. Financial institutions can provide platform companies with the required loan models. During this period, the financing business platform played the role of a liaison to ensure the connection between lenders and financial institutions. It also collects transaction data of micro-enterprises and the supply chain, and provides guarantee services [7]. If micro-enterprises have financing difficulties, the financing business platform can help them to repay loans on their behalf to ensure the completion of the service model. Micro-enterprises choose the supply chain financial financing model to raise funds, which can solve the problems of information asymmetry between banks and enterprises at this stage. No real estate mortgage is required and credit can be obtained, reducing operating costs and increasing profit growth points.

4. CONCLUSION

With the increase in the number of small and micro enterprises and the maturity of financing models, it is urgent to improve the financing efficiency and quality of small and micro enterprises. Therefore, the analysis of the current situation and existing problems of the financing model of small and micro enterprises in promoting the reform of financing model plays an obvious role in solving the problem of financing difficulties and expensive financing for small and micro enterprises. Therefore, small and micro enterprises need to uphold the basic principle of seeking truth from facts during the period of business development, combined with their own actual conditions, and constantly change their traditional concepts. The enterprises pay attention to and develop P2P network lending financing models, big data financing models, crowdfunding financing models, supply chain financial financing and other models to enhance the anti-risk ability of small and micro enterprises, solve the financing difficulties of small and micro enterprises.

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REFERENCES

- [1] Chang Taixing. Overview of contextualized small and micro enterprise credit evaluation research under the background of big data[J]. China Business Forum, 2019(19): 22-23.
- [2] Zou Di. Research on alleviating the financing difficulties of small and micro enterprises with big data [J]. Journal of Beijing Vocational College of Economics and Management, 2019(3): 30-39.
- [3] He Yuqian. Thoughts on the innovation of small and micro enterprise financing mode under the background of Internet+[J]. Journal of Jinan Vocational College, 2020, No.138(01):99-101+107.
- [4] Zou Di. Research on alleviating the financing difficulties of small and micro enterprises with big data [J]. Journal of Beijing Vocational College of Economics and Management, 2019(3): 30-39.
- [5] Hong Yunhua. Research on the Innovation of Financing Models of Zhejiang E-commerce Small and Micro Enterprises under the Background of Internet Finance [J]. Business Economics, 2019 (012): 68-72.
- [6] Yang Yuchen. Discussion on the Innovation of Financing Models of Small and Micro Enterprises under Internet Finance[J].Business,2020,(022):52.
- [7] Zhao Jinghuang. Research on Big Data Cracking the Financing Difficulties of Small and Micro Enterprises[J].Business,2019(033):76.