

ISSN Online: 2329-3292 ISSN Print: 2329-3284

# Research on Financing and Decision from Micro Enterprises in China

# —Based on Internet Financial Model Perspective

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**How to cite this paper:** Wang, J.L. (2017) Research on Financing and Decision from Micro Enterprises in China. *Open Journal of Business and Management*, **5**, 372-387.

https://doi.org/10.4236/ojbm.2017.52032

Received: February 21, 2017 Accepted: April 27, 2017 Published: April 30, 2017

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#### **Abstract**

At present, the financing of small and medium-sized enterprises in China's market economy has caused great concern of the whole society. Small and medium-sized enterprises financing difficulties directly affect our country to complete the "public entrepreneurship, people's innovation" goal. There are many reasons for the financing difficulties of SMEs, such as the small and medium-sized enterprise's financing characteristics, the state of small and medium-sized enterprise service system construction, financial institutions and credit evaluation mechanism of our country enterprise credit system etc. This paper argues that there are three reasons for the financing difficulties of SMEs: The first is the asymmetry of information between the two sides of the credit; secondly, the cost of the loan is huge. Finally, it is difficult to control credit risk. Therefore, in order to solve the problem of financing, we should focus on three aspects: Credit information, cost reduction and risk control. Internet banking model is not a traditional bank indirect financing model, nor is it a direct financing model on the capital market, but a multiagency cooperation to complete a new financing model. This model is convenient and rapid; it provides a feasible way to solve the financing difficulties of small and medium-sized enterprises, which can greatly improve the current financing environment.

# **Keywords**

Internet, Financial Model, Small and Medium Sized Enterprises

#### 1. Introduction

Small and medium-sized enterprises are the main builders of the national economy, a large proportion of the total number of enterprises in the country.

DOI: <u>10.4236/ojbm.2017.52032</u> April 30, 2017

But the macro environment of small and medium-sized enterprise development itself is not optimistic, traditional financial institutions are more inclined to provide financial support for large enterprises, and SMEs in the early stages of development is not necessary to support the development of resources [1]. Small and medium-sized enterprise information collection is difficult, so it's high cost of financing. However, the financial industry to make full use of the huge advantages of the Internet, and the Internet and integration, penetration, has become a new trend in the development of the financial industry. Internet banking has become the main battlefield of competition among enterprises; major companies have to use search engines, social networks, mobile payment and other network platform, innovative Internet financial business, just a few years to create a huge market, and the development momentum unabated. Because the Internet financial mode and the traditional mode of commercial banks are very different, it includes not only when we say the direct financing model, including a new financing mode of Internet companies and financial institutions and other parties to jointly promote the creation. This financing model has the advantages of convenient, fast, and so on, which provides a feasible way to solve the problem of financing difficulty of small and medium-sized enterprises, and can greatly improve the current business environment [2].

In the Internet financial model, the needs of corporate finance can be a reasonable exposure, so that the demand side and the supply side of the demand and supply of funds can be more direct contact and meet. The supply of capital demand and capital to put on the Internet platform will come out to show their acceptable conditions clearly, so that they can easily find the combination of the "object", and through financing platform financing guarantee, reach a purpose. Small and medium-sized enterprises enrich their financing channels, reduce the cost of information asymmetry caused by the past, to provide convenient financing for SMEs [3].

This paper first introduces the basic situation, the rise of China's Internet financial development; second the article analyzes the present situation of the financing of small and medium-sized enterprises; this paper analyzes the third Internet financial deal with the problem of financing advantage; the fourth point is that the development of online banking is a good solution.

### 2. Significance and General Situation of Research

### 2.1. Significance of Research

Small and medium-sized enterprises are faced with some difficulties, whether through direct financing or indirect financing. Capital market is a high threshold for small and medium-sized enterprises, the listing of these conditions are usually not able to meet the small and medium-sized enterprises; secondly, a series of problems of high transaction cost, economies of scale also exist in the capital market, thus greatly reduced the efficiency of equity financing. For the indirect market (private financing or credit financing), private financing because

of its higher risk rate is high; and the commercial credit as a natural way of financing, usually without additional conditions, also do not need to go through the formalities, with commodity trading naturally. But this model generally raised less money in the long run, considering the actual total cost of investment is still great. In contrast, internal financing by enterprises after tax profits directly to the enterprise transformation and accumulation, additional investment, if you do not consider the opportunity cost, cost and cost of the financing mode of the relative minimum.

Finally, we can use the research results not only to observe the financing cost of SMEs, but also to help small and medium-sized enterprises need to choose the most suitable financing methods.

#### 2.2. Latest Research Situation

The rise of the Internet financial model for SMEs financing to create a very convenient and low cost financing. In the traditional financial model, the financing of small and medium-sized enterprises mostly rely on the bank, but through bank financing, small and medium-sized enterprises to obtain loans of small amount, complicated procedures, high cost, which restrict the development of small and medium-sized enterprises fast. And banks and enterprises in the presence of asymmetric information, the supply and demand side of the matching time is long, low financing efficiency. However, in the Internet financial model, the needs of both sides of the supply and demand in the context of large data quickly matched to improve the financing efficiency, reducing the cost of financing. Gong Xiaolin (2013) on the Internet financial model and the image of the traditional banking sector pointed out that Internet banking is a convenient platform for financing, on this platform, enterprises in information collection and processing fast, can get the most appropriate configuration [4].

On the one hand, small and medium enterprises on the one hand, the uncertainty of the duration of operation, the lack of the characteristics of the mortgage assets, on the other hand, the loan amount is relatively small, relatively high frequency, short loan time. These factors have led to the small and medium enterprises in the capital transaction risk is relatively large, relatively high cost. So, normally it is difficult for SMEs to obtain bank loans, even if access to bank loans, the cost is much higher than the large-scale enterprises, SME financing, high financing costs have a negative impact on enterprise development. Zheng Zhilai (2014) in the study of the impact of the Internet on SME financing, pointed out that large, medium and small enterprises to obtain the loan balance ratio was 2.9:3.6:3.5 [5]. The number of small and medium-sized enterprises and the number of large enterprises are not in the same order of magnitude. This paper also pointed out that according to the survey data of Jiangsu and Zhejiang in 2012 for small and medium-sized enterprises: small and medium-sized enterprises loans to meet the rate of less than 30%, the micro enterprise loans to meet the lowest rate.

Sun Yuxi (2014) believes that the current financing difficulties of SMEs are

mainly internal and external reasons for two reasons [6]. Internal factors: first, the small and medium-sized enterprises lack of operating strength, two is the lack of SME credit guarantee. According to the characteristics of small and medium enterprise loans, it is likely that the ability to repay the loan in a timely manner is insufficient, poor credit records in financial institutions, the impact of the next loan. The small and medium-sized enterprise assets is limited, difficult to provide qualified financial institutions collateral requirements, coupled with the small and medium-sized enterprise management risk is big, small and medium-sized enterprise loan extremely difficult. External factors: the first is asymmetric information, the second is the lack of financial institutions and policies, the third is the lack of direct financing channels, the poor credit environment is fourth. Financial institutions tend to provide services for large enterprises, resulting in the lack of small and medium enterprises specialized services for SMEs, commercial banks can not get the most accurate and effective information. Yang Yunmu (2015) also pointed out that the United States as the world's first developed countries, the financing of a variety of ways, mainly based on securities financing. This kind of financing forms the unique financing structure under the market economy system, has the high transparency and the binding force, carries on the management to the enterprise capital indirectly through the capital market mechanism. But this way is not fully applicable in small and medium-sized enterprises, the company system of small and medium-sized enterprises only have the right to use, and small and medium-sized enterprises can obtain the qualifications listed conditions are extremely strict, only a handful of companies meet the conditions.

#### 2.3. Analysis of Financing Cost

Internal financing is limited and low cost, more convenient way of financing, the mountain into English (2015) pointed out that in the "on" the social cost of financing of the enterprises financing order is: internal financing first, followed by external financing. External financing is mainly three means: 1 bond financing, 2 equity financing, 3 other financing mode of financing. With the development of social economy, the cost of the three financing methods have changed, the cost of banks and private lending in the future will continue to rise. The China in the mode of social development in the transition period, Zhang Hui (2014) said in a "research and analysis" in the transformation of the social cost of financing problems, social financing institutions open to small and medium-sized enterprises almost no low-cost financing less [7].

#### 2.4. The Impact of Internet Banking on SMEs

Zheng Zhilai (2014) showed that in the study of the financial impact of the Internet on the financing of small and medium enterprises in the Internet to solve the financial problem of traditional financial institutions for small and medium-sized enterprises financing difficult, high cost fundamentally, has an important influence on the development of small and medium sized enterprises [8].

Mainly in the following four points: first, through the forced mechanism for the formation of traditional financing institutions to adjust, so that it is no longer a big. Second, the small and medium-sized enterprises in the financing object selection is more comprehensive, more rational, more scientific. Third, SME financing services more convenient and efficient. Business owners can operate on the internet. Sun Yuxi (2014) also pointed out that the Internet finance so that small and medium enterprises to effectively crack the following internal and external bottlenecks: first, internal bottlenecks: 1, operating strength is weak; 2, the lack of security capabilities. Internet banking will guarantee the risk passed to the third party platform, reducing the financing pressure. Two, external bottlenecks: 1, information asymmetry, the lack of financial institutions, policy, lack of direct financing channels, 4, 3, poor credit environment. In the third party platform, small and medium enterprises to find the right financing object in the context of big data.

# 3. Overview of Internet Banking in China

# 3.1. Definition and Characteristics of Internet Banking

Internet banking is the use of Internet technology, mobile communications technology to achieve financing, payment and information intermediaries and other emerging financial business model. After 2011 in China, Internet banking has become a hot topic, many local governments are the main aspects of the development of local Internet banking as a local ruling policy to grasp, to achieve the leading position in this field. The concept of Internet Banking: Internet financial theory is originated in the United States, relying on Internet technology in general financial activities, its connotation and the network finance and electronic finance has obvious differences. Network includes not only the Internet, but also includes a variety of non internet network, so some of the financial transactions carried out in the non internet network is a network of financial activities, but does not belong to Internet banking. Internet financial function: Internet banking has an open, convenient, while reducing the operation costs, improve transaction efficiency, on the other hand, the Internet finance can reduce the financial risk by using the information on the internet [9]. In the Internet banking, the financial sector in the past due to the division of labor caused by the specialization of Internet software technology and greatly weakened.

#### 3.2. Advantages and Disadvantages of Internet Banking

#### 3.2.1. Advantage Aspect

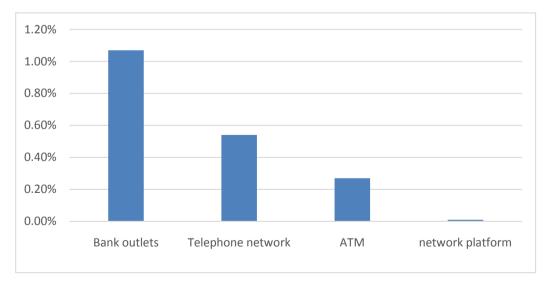
First, to solve the problem of asymmetric information. Internet banking to a certain extent, solve the problem of corporate finance information asymmetry. Internet capital investment and financing model can use its own information advantage to a certain extent to solve the high cost of information asymmetry. Internet financial institutions usually through the network platform to collect a large number of small and medium enterprises financial needs, credit rating, profitability and other related data, big data and cloud computing technology to

ensure the ability of information processing and analysis. At the same time can use soft information platform for small and medium-sized enterprise sales, money remittance and other aspects of the situation, are related to their treatment can be obtained after judging credit and repayment ability index, financing obstacles get rid of the problem of information asymmetry caused [10].

Second, lower transaction costs. Internet financial services are all in the financing service platform, through the information platform certification after the capital supply and demand sides can according to their own needs to find customers on the platform. This process does not require the participation of intermediate media, greatly reducing the transaction costs required by traditional financial media. The Internet finance but also get rid of the limitation of time and space, so that financial institutions do not need to spend a lot of money to the new business outlets, but only need to build a good service platform on the Internet, customers can enjoy the services whenever and wherever possible. As shown in Figure 1, the financing cost of the Internet platform is significantly lower than other ways.

Third, high operating efficiency. Internet financial services platform all through the computer operation, business is completed by computer processing. Carrying vast amounts of information of supply and demand in the trading platform, and financing business operation process have been carried out with standard setting, customers do not handle the traditional financial business as wasting a lot of time in the queue on the cloud computing platform, the strong data processing ability can handle the required for successful business for customers in a short period of time, and service experience is better.

Fourth, the integration of high efficiency. Everyone has a system of spare time, if you can integrate these fragmented time, use, will create more value. Mobile Internet technology is not subject to geographical, time constraints of the characteristics, just to be able to take advantage of these fragmentary time. In the



**Figure 1.** Comparison of the average cost of several major financing channels. Data sources: 2014 US internetbank announced.

field of the Internet, fragmented time and money can be fully applied, financial fragmentation has become a trend.

Fifth, huge market space. Now, most of the participants in China's Internet banking has been carried out by e-commerce groups, they are more familiar with the Internet, online shopping and electronic payment. At present, although this group may not be the main consumer groups, but they probably will be the most social, consumer and financial through Internet banking, Internet banking has gradually integrated into people's daily life, the Internet financial value will become limitless.

#### 3.2.2. Inferior Characteristics

First, the overall risk control capacity is weak. The financial risk is always accompanied by financial innovation, and the ability of risk control is directly related to the positive effect of financial innovation on society [11]. The amount of the current Internet is also necessary to follow this rule, however, the emerging Internet financial industry has not been able to attract the top risk control personnel to join the ability to control risk is still very weak. In addition, China's Internet banking is still not integrated into the people's Bank personal credit information system Chinese, so the Internet institutions will not be able to finance their personal credit verification, this problem can potentially increase the risk of the current Internet financial institutions bad debt rate.

Second, big data security challenges. Big data resources for the development of Internet banking and financing to solve the problem of SMEs has a very important problem, in its great value, while the big data security issues have to be considered. Electronic information in the Internet era, bring convenience to people but also the protection of information put forward higher requirements, because the electronic information has stronger reproduction and dissemination of information, once the leak occurs, will cause the consequences more serious than that of the traditional information disclosure. Therefore, the data security of SMEs under the Internet financial model is also a major challenge facing the Internet banking.

Third, laws and regulations are not perfect. At present, the legislation system Chinese focused on traditional banking, insurance, securities and other financial institutions, regulatory agencies including the people's Bank of Chinese and CBRC, CSRC and CIRC, but this is difficult to set up regulatory supervision according to the particularity of Internet banking. The Internet from a sense of Finance in a gray area, the government regulation is likely to lead to confusion in the industry, government participation and supervision and control over it easily lead to the role of the market to play out and cause the market to eventually lose vitality.

The absence of law brings about regulatory problems. Because there is no perfect legal provisions as support, China regulators for the Internet financial derivative financial risk, has not presented a set of regulatory requirements, lack of supervision can make Internet banking in the gray area of unfettered expansion and growth. It can be predicted that if you continue to strengthen supervision,

the risk will be more difficult to control, and ultimately will not conducive to the healthy development of Internet banking.

#### 3.3. The Basic Model of Internet Banking

# 3.3.1. Third Party Payment

Third party payment is not designed to create a product for corporate financing, and more inclined to be an infrastructure in the field of Internet banking. Its main role is in the field of computer technology, information security technology and communication technology, has formed a partnership with the bank and non bank institutions, responsible for the end user and bank payment and settlement work. It is the greatest contribution in bear the minimum risk under the condition of technology, using the Internet to terminal customers and reservoir funds-bank established the most direct connectivity.

#### 3.3.2. P2P Network Lending Platform

The peer-to-peer loans or personal loans between, professional intermediary platform is responsible for identifying true information lenders, then a series of loan review materials, if approved, will be released to provide to investors on the platform scale. The lender is through audit platform for video authentication, and check the other bank bills, electric water bills and tax payment vouchers and other important documents, through a series of process control of the lender qualification review. There are two main types of loan interest rate formation, the first is to bank lending rates for the benchmark, all according to the comprehensive evaluation of a credit risk premium, benchmark interest rate plus a risk premium is the final interest rate; second is to investors in the project bidding form, this mode is seldom used.

#### 3.3.3. Big Data Platform Loans under the Financial Background

Big data is based on the financial impact of the electronic business platform as a big data platform for financial services, but also has a large number of data providers to carry out a series of financial services business. Based on the cloud computing, the most important is the ability to quickly obtain useful information from a large amount of data. This kind of platform based on loan at present there are two main ways, one is Ali Jingdong to use its own funds to customers loan platform operation mode; the other is a platform with the bank signed an agreement for Small and micro businesses to provide loans guaranteed loans is the network group.

#### 3.3.4. Public Raising Mode

All the chips are widely spread by the Internet, let entrepreneurs or entrepreneurial individuals to raise the platform to demonstrate their creativity and projects in the public network, for investors attention and support, and then get the project to start or run the financial aid. The congregation raised similar mode of operation of the platform, to an individual or team of funds will project planning to raise public platform, through the audit, they can establish their own

page on the platform on the site, to introduce the project to the public. Professional, but the judge needs to return the project high rate of uncertainty, so this model only in a small number of angel investors, investment institutions and minority investors, the amount involved is relatively small.

#### 3.3.5. Financial Institutions Network Platform

In order to follow the trend of thinking of the Internet, to comply with consumer spending habits, but also in order to reduce labor costs, the traditional financial institutions will be some simple business transferred from the line to the online. Most of the ordinary commercial banks can transfer business through the bank's APP operation to complete, even some innovative small banks have a two loan business of most securities companies moved into the network, the APP can be completed on the securities account transfer business, etc.

# 4. An Empirical Study on the Success Rate of Small and Micro Enterprise Loans Based on Internet

#### 4.1. Data Statistics and Model design

#### 4.1.1. Data Description and Explanation

In this chapter, we will study the factors that affect the success rate of corporate loans in the Internet financing model. The data in this chapter are from Bengbu SME financing database. This chapter focuses on the study of the Internet financial models: Ali Jingdong small loans, network UNPROFOR credit pool loans and P2P loans. According to the relevant factors of these three financing models, the paper lists the key conditions, and expects the factors to affect the success rate of positive and negative direction.

- 1) personal information; Age (divided into 4 years, 20-26 years old, 27-34 years old, 35-43 years old, over the age of 43, the virtual variables were set at 1, 2, 3, 4) corresponding variables are: X11. Gender (set dummy variable, female set to 0, male set to 1) corresponding to the variable is X12.Personal credit records: according to the comprehensive score of the network financing platform, the corresponding variable is X2
- 2) Security information; according to whether there is security or collateral to set the virtual variables, secured or secured to 1, no is set to 0, the corresponding variable is X31. Another factor is whether the cash flow from the financing platform, the corresponding variable is set to X32.
- 3) Borrowing information including the amount of loans, loan interest rates, borrowing time and other information, the corresponding variables are X41, X42 and X43.

# 4.1.2. Descriptive Statistics of Sample Data Model

From the entire database records of three years of data, all companies have applied the loan number as the overall data of this study. In the Internet lending model, the proportion of male borrowers reached 85.73%. In the age structure, the population under the age of 34 accounted for 72% of the total, the Internet is the main force to apply for loans for young men. Specific conditions are shown

#### in Table 1.

From the total amount of the loan, the maximum value reached 6 million, but the average value of only 545 thousand, the median is on average, indicating that the large amount of loan application quantity is less, the application amount of most people under 540 thousand. Period of less than half a year, which is the performance of short-term liquidity shortage of small businesses, but also to control the risk of capital side to shorten the loan period. Loan interest rate span is very large, from 8% to 26%, the gap several times, which reflects the level of risk management platform for many Internet platforms, as well as differences in business style. Specific conditions are shown in Table 2. The statistical description of the security information is as follows: 18582 companies have secured in general, accounting for more than 59.95%; most of the rest are unsecured.

As the object of the study is the success rate of the loan, but for a single enterprise or a single loan application, there are only two kinds of results, so the model used in this paper is a logarithmic unit model and Logit regression mode.

$$Y_i^* = \beta_0 + \sum_{i=1}^k \beta_j^* X_{ij} + u_i$$
 (1)

The  $Y_i^*$  in the model is latent variable is unobservable, but the virtual variable  $Y_i$  is observable.

Table 1. Descriptive statistics of personal information.

Person	al information	Absolute quantity	Relative proportion
	Female (1)	5992	14.27%
Gender	Male (0)	26,006	85.73%
	Total number	41,998	100%
	20 - 26	8214	19.56%
	27 - 34	22,027	52.45%
Age	35 - 43	7850	18.69%
	Above 43	3907	9.30%
	Total number	41,998	100%

Data source: Bengbu small and micro enterprise financing database.

Table 2. Statistical description of loan information.

	Total borrowings (10,000 yuan)	Loan term	Borrowing rate
Maximum value	602.00	1 year	24.00%
minimum value	1.00	20 days	8.00%
average value	54.50	178 days	13.6%
Median	45.00	169 days	14.8%

Data source: Bengbu small and micro enterprise financing database.

$$Y_i = \begin{cases} 1, & \text{if } Y_i^* > 0 \\ 0, & \text{otherwise} \end{cases}$$

It is customary to assume  $Var(u_i) = 1$ , that is used to fix the Y in general, so the following conditions are formulated as follows:

$$p_i = \operatorname{Prob}\left(Y_i = 1\right) = \operatorname{Prob}\left[u_i > -\left(\beta_0 + \sum_{j=1}^k \beta_j^* X_{ij}\right)\right]$$
 (2)

*F* is the cumulative distribution function of *u*, if the distribution of *u* is symmetric, then 1 - F(-z) = F(Z), (2) can be written

$$p_i = F\left(\beta_0 + \sum_{j=1}^k \beta_j^* X_{ij}\right) \tag{3}$$

If the cumulative distribution of  $u_i$  is logistic distribution, the Logit model can be obtained:

$$F(Z_i) = \frac{\exp(Z_i)}{1 + \exp(Z_i)} \tag{4}$$

All kinds of above can get the preliminary logit model.

$$\ln\left(\frac{p_i}{1 - p_i}\right) = \beta_0 + \sum_{j=1}^k \beta_j^* X_{ij}$$
 (5)

The  $p_i/(1-p_i)$  in the equation is called the opportunity ratio, that is, the ratio between the probability of occurrence and the probability that it will not occur. According to the above logit model, the model set in this section is set as

$$Z = \beta_0 + \beta_1 * X1 + \beta_2 * X2 + \beta_2 * X3 + \beta_4 * X4 + u \tag{6}$$

 $\beta_0$  intercept constant, X1 represents the personal physiological information matrix (including X11, X12, X2) on behalf of the personal credit information matrix, X3 represents the guarantee information matrix (including X31, X32, X4) on behalf of loan information matrix (including X41, X42, X43).  $\beta_1\beta_2\beta_3$  and  $\beta_4$  represent the coefficient matrix respectively, and u represents the random perturbation term.

# 4.2. An Empirical Analysis of the Factors Influencing the Success Rate of Loan

All the data into the model, and the use of Eviews software for data analysis. The results are shown in the following figure.

#### 1) multicollinearity test

The correlation coefficient matrix can be used to test the existence of multicollinearity between the explanatory variables. The results of the first regression are shown in **Table 3**.

From the above table, we can see that the loan interest rate X42 has a linear relationship with other variables, such as the personal credit situation, and whe-

ther there is a mortgage, and whether or not to mention the relevant factors. In order to avoid the problem of inaccurate estimation caused by the multiple collinearity problem, it is necessary to modify the model. The correlation coefficients between the variables are shown in **Table 4**.

After excluding the interest rate factors, although the goodness of fit was reduced to 0.3409, the other variables were tested at the significance level of 5%. The results of the second regression are shown in **Table 5**.

#### 2) Integrity test of the model

Due to the nonlinear characteristics of the model, this paper uses the likelihood ratio (likelihood) to test the whole significance of the model. Because the

**Table 3.** The First logit regression results.

Variable	Coefficient	Std.Error	z-Statistic	Prob.
X11	-0.1411	0.0322	-4.3820	0.0000
X12	0.3644	0.0334	10.9102	0.0000
X2	-0.0851	0.2456	-0.3465	0.6862
X31	-0.3198	0.1541	-2.0753	0.0576
X32	-1.1735	0.1240	-9.4637	0.0000
X41	-0.2299	0.0677	-3.3959	0.0035
X42	-0.0148	0.0099	-1.4949	0.0162
X43	-8.5750	1.0156	-8.4433	0.0000
McFadden R-squared	0.3687	Mean dependent Var		0.663389
Schwarz Criterion	0.8123	Log likelil	nood	-23,988.0900
Hannan-Quinn Criter	0.8298	Restr.Log likelihood		-25,466.2800
LR statistic	26343.6	Prob(LR statistic)		0.0000

Table 4. Correlation coefficient between the variables.

	X11	X12	X2	X31	X32	X41	X42	X43
X11	1.00	0.13	0.22	0.18	0.11	0.11	-0.24	-0.24
X12		1.00	-0.04	-0.11	0.10	0.17	0.12	0.13
X2			1.00	0.15	0.21	0.22	-0.40	0.11
X31				1.00	0.09	0.21	-0.36	0.19
X32					1.00	-0.20	-0.43	-0.02
X41						1.00	-0.15	0.01
X42							1.00	0.09
X43								1.00

Variable	Coefficient	Std.Error	z-Statistic	Prob.
X11	-0.1499	0.0144	-10.4097	0.0000
X12	0.3952	0.0610	6.4787	0.0000
X2	0.0953	0.0150	6.3533	0.0000
X31	0.4851	0.1280	3.7898	0.0000
X32	1.5790	0.1052	15.0095	0.0000
X41	-0.3381	0.0211	-16.0237	0.0000
X43	-0.0160	0.0055	-2.9091	0.0009
McFadden R-squared	0.3329	Mean dependent Var		0.6994
Schwarz Criterion	0.7162	Log likelihood		-22,536.0900
Hannan-Quinn Criter	0.8742	Restr.Log likelihood		-36,785.66
LR statistic	24,328.33	Prob(LR statistic)		0.0000

Table 5. Second logit regression results after excluding interest rate variables.

likelihood itself is a probability, its value range is [0, 1], the range of the log likelihood value is (negative infinity, 1]). This value is often used to reflect the degree of fitting the model, the smaller the value of the better. The negative value of two times can be used to test the overall significance of the logit model **Table** statistical software to give the likelihood value of 24,798.33, P value is zero, successfully passed the overall significance test.

#### 3) summary of Logit Model

According to the above results, the formula for obtaining the loan success ratio p is as follows:

$$P = \frac{1}{1 + \exp\left[-\left(\beta_0 + \beta_1 * X1 + \beta_2 * X2 + \beta_3 * X3 + \beta_4 * X4\right)\right]}$$
 (7)

According to the statistical results, the factors that affect the success rate of loans are included in the following table.

This section uses logit model to determine the factors influencing the success rate of the loan, the older, the better, credit guarantees and non cash and other factors is the success rate in the positive influence; and gender (male), loan and loan terms and the success rate of negative direction to affect the success rate of the loan. The final empirical results are shown in **Table 6**.

#### 5. Conclusions and Policy Suggestion

#### 5.1. Article Conclusion

In the first two chapters, this paper analyzes the irreplaceable role of small and medium sized enterprises in China in absorbing employment, activating social economy and maintaining social stability. Therefore, it has always been the issue of concern by the community; at present, the most serious problem is mainly focused on financing problems. Through theoretical analysis, the financing

**Table 6.** Factors affecting the success rate of loans and the direction of its impact.

variable	Factor	Influence direction
X11	Gender (male)	negative
X12	Age	positive
X2	Credit situation	positive
X31	Guarantee situation	positive
X32	Non cash withdrawal	positive
X41	Amount of money	negative
X43	term	negative

problem of small and medium-sized enterprises mainly comes from the information asymmetry in the enterprise level and the mortgage problem in the financial system. The problem of information asymmetry is the fundamental problem. It can only be reduced and can not be completely eliminated. However, due to the lag of the credit system in our country, the consciousness of the enterprises to publish information is not strong. Therefore, based on the consideration of risk and benefit, the domestic financial institutions at all levels will not participate in the financing of small and medium enterprises. At present, China's financial system is still an indirect financing system, which is dominated by banks. However, the state-owned nature of commercial banks leads to a large state-owned enterprise. The two problems just stuck in the end of the two stage financing chain, so that it is difficult for SMEs to enter into the financing system.

But Internet banking can alleviate this problem. Firstly Internet information high speed circulation operation reduces the difficulty and cost of funding to gather information and efficient operation of the Internet; secondly the efficient dissemination of the Internet improves the efficiency of the operation and reduces the cost of obtaining information; thirdly with the Internet the popularity of the general public can purchase related financial products through the Internet channel, which will increase the supply of funds, will be conducive to the residents' savings into effective investment; fourthly with the maturity of big data technology, the Internet can record all transactions every investor every demand, which will make great contributions to the whole society of information transparency.

In this paper, Logit model is used to study the factors that influence the success rate of Internet financing. The final results show that the older, the better the credit, and the guarantee are the factors that have a positive impact on the success rate, while the gender (male), loan finance and loan maturity are negatively correlated with the success rate.

#### 5.2. Policy Suggestion

### **5.2.1. Enterprise Level Recommendations**

Small and medium-sized enterprises lack of funds is more serious, on the one hand, due to the rapid expansion of business, capital demand; on the other hand, there is also a long-term occupation of funds, cash management efficiency is not high. First, enterprises need to strengthen the operation efficiency of cash, improve the management of cash flow, strengthen the strategic planning of enterprises in order to be able to finance the project in advance, to maximize the impact of the project does not affect. Second, external financing, comprehensive consideration of various financing cost and efficiency, try to avoid the maturity mismatch of capital flow, which requires a profound understanding of the various financing methods, matching the most appropriate cash support for enterprises. Third, strengthen the disclosure of information, for the enterprise does not belong to the confidential information, shall be announced, increase the amount of Internet activity, can leave more real information to the outside world, to alleviate the problem of asymmetric information, reduce the cost of financing.

#### 5.2.2. Government Recommendations

As mentioned above, the problem of asymmetric information and the back-wardness of China's financial level limit the financing capacity of SMEs, so the government needs to solve the existing problems from the two aspects. The method to solve the problem of information asymmetry in the government level: first establish corporate social credit system, and this system should include the government enterprise credit information disclosure platform leading public products, should also include the profit for the purpose of credit rating agencies; second promote a unified information platform for the deployment of the whole society, to achieve the various departments finance, finance, taxation, judicial and infrastructure products, the common information sharing mechanism; collect and share third law enforcement tools to build a business information service information architecture. To solve the problem of agency problem, we need not only the landing of the relevant legislation, but also the need to improve the level of corporate governance, improve internal control system to improve management efficiency.

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