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Logistics Statistical Analysis of Operating Mechanism of Equity Crowdfunding base on Financing Efficiency

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Abstract. In this paper, we sampled the data of equity crowdfunding projects from crowdfunding platform, such as Dajiatou, Renrentou and Tianshihui, and developed a logistics statistical analysis model to study the operating efficiency of operating mechanism of equity crowdfunding base on financing efficiency. The results indicate that the financing threshold setting is negatively related to the probability of financing success. Leading mechanism plays an important role in guiding and leading ordinary investors, and the investment amount of leader is positively related to the probability of financing success. The fund management mechanism can play a role in supervising the later stage of the project, but reduces the probability of financing success. Information dynamic updating mechanism has reduced the degree of information asymmetry between project sponsors and investors to a certain extent. The results also indicated that operational mechanism increased the financing efficiency while adding new sources of risk.

Key words. equity crowdfunding, operation mechanism, financing efficiency.

1. Introduction

As a new financing mode,the importance of equity crowdfundingin the financial of small and micro enterprises is only just beginning. To a certain extent, the emergence of equity crowdfunding expanded the financing channels and reduced the capital cost of start-ups. At present, China's equity crowdfunding operation

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is still in the exploratory stage, many issues to be solved, such as, the network platforms help investors to know more information about start-ups, but increasing the possibility of publishing false information. Leading investment mechanisms help ordinary investors to identify the real innovation and rapid growth of small micro-space enterprises quickly and effectively, however, it is easy to produce the collusion phenomenon between leaders and sponsors. So it is important to check the efficiency of equity crowdfunding, and improve relevant rules.

Beck and Levine (2003), Maksimovic (2007) proposed that financial services play an important role as a mediator in the optimization of social resource allocation. Solomon Tadesse (2002) pointed out that the financial risk dispersion is closely related to the degree of technological innovation of enterprises. Allen et al. (2012) pointed out that market-oriented capital markets are more risk-tolerant than traditional banking-oriented financial systems. Ajay et al. (2013) put forward that the entry threshold, transaction cost, reputation mechanism and market design in the process of financing are internal motives. Bogost (2013) argued that the raise investors respond to potential quality information to a large extent because of the relatively fragmented start-up data and the lack of credit ratings. Mollick (2014) found that allowing over-financing in the design of crowdsourcing can lead to better cash flow from quality creative projects. Morck et al. (1998) proposed that the capital market can support and guide the funds to innovative enterprises, which is more suitable for high-risk and innovative project investment. Meyer et al. (2005) proposed that innovativeness is a core element for small and medium-sized enterprises to gain future growth. Laugaet al. (2009) found that using the feedback information to improve products and services, and improves the efficiency of product innovation and the success rate of financing. Wojciech (2013) pointed out that equity crowdfunding platform through the threshold mechanism can be set low-innovation and low potential for development, which to some extent play a protective role for investors. Hu et al. (2015) studied the issue of the optimal pricing mechanism for promoters.

It can be seen from the above literature that most of the existing researches are focused on the incentive projects of the creative projects, and the researches on the equity crowdfunding are relatively few, and the research on it is not systematic, especially in the operation mechanism research. This paper will discuss the key factors which affect the success of the public financing from information release, investment rules and risk controls. The research results will provide reference for the operation mechanism design, and provide the scientific basis for formulating the supervision policy of public equity crowdfunding.

2. Theoretical Analyses and Hypothesis

2.1. Theoretical Analyses

In order to ensure the financing efficiency of the project, the crowdfunding platforms have set up a series of operation mechanism, such as project review mechanism, information release mechanism, post-project tracking mechanism, investment

threshold mechanism and leadership mechanism. Equity crowdfunding operation mechanism is shown in Figure 1:

Fig. 1. Equity crowdfunding operation mechanism

The equity crowdfunding platforms issue information to investors in the project after checking the legitimacy and authenticity. The project sponsors set the minimum financing amount and the financing term according to the project situation. Leaders are responsible for conducting due diligence on the project for the due diligence report and tracking the project throughout.

In order to ensure the successful operation of the project, the company has set up a series of mechanisms and operational procedures. The specific operation flow is shown in Figure 2:

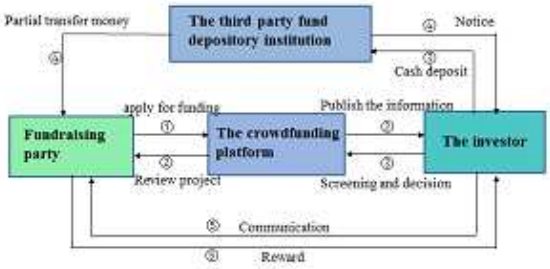

Fig. 2. Operation flow of the equity crowdfunding model

The project sponsor in the public platform displays the project in order to attract the attention of investors; shares of the platforms apply for public release project financing information.

The public platform issues the project information to qualified investors after verification, including the legitimacy and authenticity of the audit.

After receiving the information of the financing project, the investor will review the relevant content, and once the investment is decided, the investment amount shall be transferred to an independent third party depository institution within the playing time stipulated in the platform.

when third-party depositary institutions are in receipt of investors and the platform of the play section notice, the raised funds in batches according to the requirements into the funders account.

After the project financing is completed, the fund-raising party shall transfer the

equity of the corresponding enterprise to the investor according to the stipulation in advance, and the investor obtains the equity of the enterprise and the corresponding return according to the contract.

As the development of China's equity crowdfunding is not a long time, the mode of operation and operational mechanism design is not very mature, there are information asymmetry, financial security risks and not perfect investor protection mechanism and other issues, so it needs equity financing platforms design corresponding systems in the operation of the project in the process for investment and financing party.

2.2. Hypothesis

The threshold mechanism of the equity crowdfunding is the minimum amount required for the financing and the duration of the financing according to the actual situation of the project. The results show that the failing possibility of project financing with higher financing threshold is higher, and the successful possibility of project financing with lower financing threshold is higher. Therefore, the investor will not be greedy for the success of the expectation of financing when to set threshold, which limit the financing of over-financing behaviour to a certain extent for the successful operation of the project. In summary, the following assumption is made:

Hypothesis 1: Under the situation of other conditions being equal, the financing threshold is negatively correlated with the probability of the successful financing.

Leader mechanism is that the ownership of the financing platform will require project financing must have a professional investor, leading the investment to assist other investors in investment decisions. For most of the public lack of investment experience, they are not professional investors and it is difficult to make a reasonable assessment for the project. Leaders as professional investors can play a very good leading role and it can enhance investors understanding of the project and a sense of trust, so investors can make the right investment decisions, which is conducive to project financing success. In summary, the following assumption is made:

Hypothesis 2: Under the situation of other conditions being equal, the investment of leaders is positive correlation with the probability of successful financing.

Fund management mechanism refers that the equity platform entrust an independent third-party project financing received in the process of hosting in the process of equity crowdfunding in order to protect the safety of investors and project financing after the success of the operation efficiency. After the successful financing of the project, the project funds will be transferred one-time or in batches to the project sponsors in accordance with the views of investors. Fund management mechanism enhances the confidence of investors to a certain extent, and plays a supervisory and promotional role for the project sponsors to the successful operation of the project. In summary, the following assumption is made:

Hypothesis 3: Under he situation of other conditions being equal, the number of fund-raising has a positive impact on the probability of successful financing.

As many ordinary investors who participate in the equity participation are not professionals, they have limited knowledge of the project and ability to control.

After successful project financing, the latter part of the project cannot be tracked and supervised. Establishment of the project post-tracing mechanism can strengthen interaction with investors, enhance mutual trust, enhance investor awareness of the value of the project and improve investor information, thus enabling more investors to participate in the equity to raise the probability of successful equity crowdfunding. To sum up, the following assumption is made:

Hypothesis 4: Under the situation of other conditions being equal, the dynamic update times of information is positive correlation with the probability of successful financing.

3. The Model

3.1. Sample selection and data sources

This paper takes the public equity financing projects as listed on the platform of large-scale equity investment such as Dajiatou, renrentou and Tianshihui. The relevant information of the project comes from each platform website. The sample data is collected by hand, and it is fully considered the requirements and setting of the project financing mechanism in the sample collection process from October 30, 2014 to October 30, 2015, such as threshold mechanism, lead investment mechanism, fund management mechanism and post-tracking mechanism. In order to adapt to the requirements of the research model, the sample of published but not yet expired" and "incomplete disclosure of key information" was eliminated, and 149 samples of the project were finally obtained. Among them, the number of the successful equity crowdfunding is 100. SPSS19.0 statistical software was used for multivariate statistical analysis.

3.2. Variable definition

From the theoretical analysis, the establishment of equity crowdfunding mechanism can improve the degree of investors play a protective effect, thereby enhancing investor information and increase the possibility of successful equity financing, the following will build a Logistic regression analysis model. The theoretical hypothesis is demonstrated. Table 1 shows the definition and specific settings of each variable in the model:

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Table 1. Variable definitions and descriptions

Variable types	Variable name	Variable symbol	State variable method	Expected symbol
The independent variables	Financing threshold	Threshold	The project financing information in the published threshold shall prevail	-
	Innovation capability index	Inn	Reflecting the innovation ability of project	+
	Collar investment amount	Lia	The amount of lead investment in the project announcement information shall prevail	+
	Fund-to-account batch	Fre	Based on the number of funds issued in the project announcement information, part of the data comes from the platform rules	+
	Information dynamic update	Upd	Dummy variable, with dynamic update information of 1, otherwise 0	+
	Innovation ability index	Inn	Reflect the innovative ability of sponsors of crowdfunding projects	+
	Exchange feedback	Amo	Reflect the degree of interaction of information exchange activity, the value of the commentary comment community number	+
Control variables	Product status	State	Not yet started value 0, product development value 1, the product has been listed or on the line value 2, already have income value 3, has been profitable value 4	+
	Subordinate to the industry	Ind	high-tech industry, creative industry, service industry, respectively as "1,2,3"	-

The main focus of the study is the impact of the project financing threshold mechanism, capital investment mechanism, capital management mechanism and dynamic information renewal mechanism on the success of project financing. The financing threshold mechanism mainly investigates the threshold setting and the amount of the variable, "Financing threshold (Threshold)", selects the project financing process of public financing platform to set the threshold value.

Innovation capability index (Inn) is an important indicator of the model, and evaluation from four aspects, such as innovative investment ability, innovative implementation ability, innovative management ability, innovation outside environmental. Inn can be expressed as follows:

$$\mathrm{Inn} = w_1\mathrm{M} + w_2\mathrm{N} + w_3\mathrm{Q} + w_4\mathrm{P} \tag{1}$$

Among them, M,N,Q,Prepresenting innovation investment ability, innovative im-

plementation ability, innovative management ability, innovation outside environmental respectively. w_1,w_2,w_3,w_4 are the weight of four parties.

$$\mathrm{M} = w_{m1}\mathrm{M}_1 + w_{m2}\mathrm{M}_2 + w_{m3}\mathrm{M}_3 + w_{m4}\mathrm{M}_4 \tag{2}$$

Among them,M_1,M_2,M_3,M_4representing the degree of R & D, the number of R & D team, the education of R & D team , and development level of industry technology respectively. w_{m1},w_{m2},w_{m3},w_{m4} are the weight of four parties.

$$\mathrm{N} = w_{\mathrm{n}1}\mathrm{N}_1 + w_{n2}\mathrm{N}_2 \tag{3}$$

Among them,N_1,N_2representing the number of copyright and software copyright, innovation strategy respectively. w_{n1},w_{n2} are the weight of two parties.

$$\mathrm{Q} = w_{q1}\mathrm{Q}_1 + w_{q2}\mathrm{Q}_2 \tag{4}$$

Among them,Q_1,Q_2representing innovation incentive mechanism, and times of project sponsor's entrepreneurial respectively. w_{q1},w_{q2} are the weight of two parties.

$$\mathrm{P} = w_{p1}\mathrm{P}_1 + w_{p2}\mathrm{P}_2 \tag{5}$$

Among them,P_1,P_2representing the degree of regional financial development, and the support of regional government respectively. w_{p1},$w_{p2}$are the weight of two parties.

Lead investment mechanism is mainly to investigate whether there are leaders and the amount of lead investment, the greater the amount of lead investment, the greater the power of leading due diligence and information disclosure. Therefore, the variable is defined as "Collar investment amount (Lia)", selects the item announced the leader of the collar investment amount. If there is no leader, the sample parameter is 0.The main purpose of this study is to examine the safety and incentive mechanism of capital in the process of fund raising. The variable is defined as the "Fund-to-account batch (Fre)", which is based on the number of funds released by the project. The dynamic information updating mechanism mainly investigates the fund-information to follow up the situation, due to market conditions and technological development of start-ups change rapidly; timely update project-related information can reduce the asymmetry of information, enhance investor trust, and thus promote the success of the project financing. The variable is defined as "Information dynamic update Upd ", with the dynamic update of the logo, the project has dynamic update value of 1, on the contrary, no dynamic update value of 0.

In order to ensure the stability of the model and combine the characteristics of the public ownership project, two key control variables of "Product status" and "Industry" are set up. The product status reflects the status of the current product (State) , divided into" not yet started, product development, the product has been listed or on the line, already have income, has been profitable", respectively as " 0,1,2,3,4 "; subordinate to the industry (Ind), which is divided into high-tech industry, creative industry, service industry, respectively as "1,2,3", the project on the public in accordance with these three types is classified in the sample processing

process.

3.3. Construction of the model

According to theoretical analysis, research assumptions and variable definitions, we using Logistic regression model, the success of the project financing (Y) as the independent variable, the relevant factors as independent variables to build the analysis model as shown in equation 1:

$$Y = \alpha + \beta_1 Threshold + \beta_2 Lia + \beta_3 Fre + \beta_4 Upd + \beta_5 State + \beta_6 Ind + \varepsilon \quad (6)$$

Among them,$\alpha$is the constant term,$\beta_1\beta_2\beta_3\beta_4\beta_5\beta_6$ are each variable coefficient, $\varepsilon$is the error item. Y indicates whether the equity financing project is successful. $Y$is 1 when the project financing is successful; Y is 0 when the project financing fails.

In order to analyze whether the information release mechanism, threshold mechanism, lead mechanism and capital management mechanism lead to the allocation of funds to high-quality projects.

$$Amo = b_0 + b_1 Inn + b_2 Ind + b_3 Sta + \varepsilon_1 \quad (7)$$

$$Upd = c_0 + c_1 Inn + c_2 Ind + c_3 Sta + \varepsilon_2 \quad (8)$$

$$InThre = d_0 + d_1 Inn + d_2 Ind + d_3 Sta + \varepsilon_3 \quad (9)$$

$$InLia = e_0 + e_1 Inn + e_2 Ind + e_3 Sta + \varepsilon_4 \quad (10)$$

$$Fre = f_0 + f_1 Inn + f_2 Ind + f_3 Sta + \varepsilon_5 \quad (11)$$

Among them $LnThre$ is the natural logarithm of the financing threshold $LnLia$ is the natural logarithm of the amount of the leader,$b_1b_2b_3c_1c_2c_3d_1d_2d_3e_1e_2e_3f_1f_2f_3$are each variable coefficient, $b_0c_0d_0e_0f_0$are each constant term, $\varepsilon_1\varepsilon_2\varepsilon_3\varepsilon_4$are each error item.

4. Results

4.1. Descriptive statistical analysis of the variables

The descriptive statistical analysis results of each variable are shown in Table 2:
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Table 2. Descriptive statistics of each variable

Variable name	Financing success				Financing failure			
	Minimum	Maximum	Average	Standard deviation	Minimum	Maximum	Average	Standard deviation
Financing threshold	15	1000	172.03	198.712	25	1500	338.39	321.017
Collar investment amount	0	500	32.03	67.146	0	150	4.69	21.818
Fund-to-account batch	1	3	1.84	0.813	1	2	1.02	0.143
Information dynamic update	0	1	0.80	0.402	0	1	0.31	0.466
Product status	0	4	2.35	0.936	0	4	1.86	1.384
Subordinate to the industry	1	3	1.50	0.823	1	3	2.33	0.944

From the descriptive statistical analysis results of each variable, the minimum value of financing threshold is 150,000 yuan, the maximum value is 10 million yuan, the average value is 1.7203 million yuan, and the standard deviation is 1.98712 million yuan. The financing threshold is set at a minimum of 250,000 yuan, with a maximum of 15 million yuan, with an average of 3.3839 million yuan and a standard deviation of 3.21 million yuan. This shows that there isa very large difference to set up the threshold between financing success and financing failure, the reason is that the difference between equity projects is relatively large, partly reflected in the industry differences. In the sample, there are great differences in the thresholds of financing projects in different industries. Among them, the high-tech projects are mostly internet technology companies, which mainly use the network technology to realize the products and services, and do not need equipment, plant and so on. Therefore, the threshold setting is relatively low, the average value of 1.73954 million yuan; creative projects in the operation process generally need to produce creative products, therefore, the resulting in the threshold is set high in the plant, equipment, working capital and other expenses, the mean value is 3.8289 million yuan; the threshold value of the service item is 2.8677 million yuan, which needs large investment in the field, human capital and so on, which leads to the high threshold setting. In addition, it also has a big difference between the success of the project and the failure of the project on the threshold setting, which the success of the project set up the average threshold of 1.7203 million yuan, the failure of the project set up an average threshold of 3.3839 million yuan, nearly twice as many successful projects.

From the perspective of investment leader, the maximum amount of the leader

of the collar is 5 million, with an average of 320,300 yuan in the successful financing of the project, the standard deviation of 671,460 Yuan, leading the amount of collar investment up to 150 million, with an average of 46,900 yuan, the standard deviation of 218,180yuan in the financing of failed projects. This shows that the size of the amount of lead investment leaders has a greater impact on the success of public financing, the greater the amount of lead investment, the greater of the possibility of the success raised. From the funds into the batches of view, in the financing of successful projects, the average credited batches is 1.84 and the standard deviation is0.813; the average credited batches is 1.02 and the standard deviation is 0.143 in the failed financing of the project. Under normal circumstances, the projects setting the funds in batches, in order to obtain the next batch of funds, must accept the financing platform or investor assessment, the assessment to the relevant standards, in order to release the next batch of funds, or cancel it. Therefore, the capital management system of batch-to-account accounts to a certain extent constitutes the supervision of the late-stage operation of the project, which is conducive to enhancing the investor's trust and willing to invest the funds into the project. The mean value of dynamic updating of project information is 0.8, and the standard deviation is 0.402. The average value of dynamic update of project information is 0.31 and the standard deviation is 0.466. Thus, the higher the frequency of the dynamic updates of project information, the higher the transparency of information among sponsors and investors, the greater the possibility of successful project financing.

In the course of the research, the mature status of the fund-raising projects and products have "not yet started (assignment 0), product development (assignment 1), products have been on the market or on-line (assignment 2), have income (assignment 3), have been profitable (assignment 4) "is identified, the higher the value of the product the higher the maturity. From the descriptive statistical analysis results, in the successful financing project, product status mean is 2.35and the standard deviation of 2.34, in the failed financing project, the product status mean 1.86 and the standard deviation of 1.384. It can be seen that the higher the maturity products and projects, the greater the likelihood of its financing success.

4.2. Correlation analysis

In order to guarantee the reliability and robustness of the model, the correlation between the variables of the model is tested. The test results are shown in Table 3.

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Table 3. Correlation coefficient test of each variable

		Financing threshold	Collar investment amount	Fund-to-account batch	Information dynamic update	Product status	Subordinate to the industry
Financing threshold	Pearson correlation	1	0.369**	0.009	-0.161*	0.027	0.216**
	Significant (both sides)		0.000	0.212	0.049	0.348	0.008
Collar investment amount	Pearson correlation	0.369**	1	0.339**	0.090	-0.100	-0.067
	Significant (both sides)	0.000		0.000	0.276	0.225	0.320
Fund-to-account batch	Pearson correlation	0.009	0.339**	1	0.286**	0.109	-0.163*
	Significant (both sides)	0.212	0.000		0.000	0.185	0.047
Information dynamic update	Pearson correlation	-0.161*	0.090	0.286**	1	0.164*	-0.257*
	Significant (both sides)	0.049	0.276	0.000		0.046	0.002
Product status	Pearson correlation	0.027	-0.100	0.109	0.164*	1	0.072
	Significant (both sides)	0.348	0.225	0.185	0.046		0.380
Subordinate to the industry	Pearson correlation	0.216**	-0.067	-0.163*	-0.257**	0.072	1
	Significant (both sides)	0.008	0.320	0.047	0.002	0.380	

According to the relevant research experience, if the correlation between the variables is less than 0.65, it shows that there is no significant correlation between the variables, which can avoid the model of multi-collinearity problem; the model construction process can also be related variables into where the analysis is carried

out. As can be seen from Table 4-2, the correlation coefficients between the variables are the Threshold and Lia, the correlation coefficient is 0.369, which is related to the significant level of 0.01; the correlation coefficient between the batch and the leader's investment is 0.339, which is related to the significance level of 0.01; whether the correlation coefficient between dynamic and new information and financing threshold is -0.161, is significant at 0.05 significance levels; the correlation coefficient between the updated information and the money-to-account batches is 0.286, which is related to the significant level of 0.01; the correlation coefficient between the product status and update information is 0.164, which is related to the significance level of 0.05; the correlation coefficient between the industry and the capital-to-account batch is -0.163, which is related to the significance level of 0.05;the correlation coefficient between the industry of the project and whether the information is updated -0.257, at 0.01 significance level correlation; there is no correlation among the rest of the coefficients. Thus, the correlation between the variables within the permissible range can be incorporated into the regression model.

4.3. Multiple regression analysis

Taking the success of the project financing or not as the dependent variable, the Logistic regression model is constructed with the independent variables and the control variables as the independent variables. The regression results are shown in Table 4:

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Table 4. Multivariate regression statistics of model ①

Variables		1	2	3
Financing threshold	Threshold	-0.018** (0.001)	-0.021** (0.000)	-0.013** (0.000)
Collar investment amount	Lia	0.115** (0.002)	0.144** (0.000)	0.107** (0.000)
Fund-to-account batch	Fre	3.986** (0.002)	3.730** (0.001)	
Information dynamic update	Upd	1.736* (0.035)		1.447* (0.023)
Product status	State	0.604 (0.083)	0.756 (0.082)	0.866** (0.006)
Subordinate to the industry	Ind	-0.834 (0.084)	-1.003 (0.077)	-0.959 (0.073)
Adjust the R square		0.53	0.58	0.52

Note: *** indicates significant correlation at 0.01 levels (both sides).

* Indicates a significant correlation at 0.05 levels (both sides).

In the actual operation of the shares of the public, most of the co-financing platform for the arrival of funds and dynamic batch updates will have certain rules

and restrictions, such as part of the public platform requires project sponsors to release the only the next batch of funds after the project information update, taking into account the reality of the model construction in both the relevant variables are included. Model 1 is the regression result of all the variables, model 2 is the regression result without taking into account the fact that the funds are credited to the batch variable, and model 3 is the regression result without considering whether to carry out dynamic information update. The fitting degree of the three models is relatively higher; especially the R of the model 2 is 0.58.

From the analysis of Table 4-3, there is a negative correlation between the financing threshold and the likelihood of success of project financing. All three models are related at the significance level of 0.01. The study supports hypothesis 1, indicating that the higher the project threshold is set , the greater the pressure on capital and risk to investors, the smaller the likelihood of success of the public ownership of shares, which also reflects the equity platform is more suitable for financing small start-up projects. The amount of leader investment is positively related to the likelihood of success of project financing. All three models are related at significance level of 0.01. The conclusion supports hypothesis 2, which indicates that the leader of investment has played a significant role in guiding and leading the process of shareholding, and the amount of lead investment is a professional leader to convey a large number of effective signal to the headman, leading the amount of more investment shows that the leadership of the project acceptance is higher, there is a large appreciation space, the investment to capture the relevant signal will make a decision-making response.

There is a positive correlation between the number of funds arriving in batches and the likelihood of success of project financing. Both models are related at significance levels of 0.01, and the conclusion of the study supports hypothesis 3, indicating that funds are batched to spread the risk of investors to a certain extent, the latter part of the project play a supervisory role. There is a positive correlation between the dynamic update of information and the possibility of success of project financing. Both models are related at the significance level of 0.05. The research conclusion supports hypothesis 4, indicating that the dynamic updating of project information reduces the project sponsor the degree of information asymmetry between project sponsors and investors to a certain extent and enhances the details of the project investors to understand and grasp, so as to encourage investors to make more favourable investment decisions. In model 3, the product status is positively correlated with the likelihood of project financing success at 0.01 significance levels, indicating that the more mature the project product, the closer the market profitability, the greater the likelihood of success of financing. In the process of equity crowdfunding operation, the more mature products and projects, the valuation will be higher. There is no clear correlation between the sector and the likelihood of success.

Model regression results shown in Table 5:

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Table 5. model ② -⑥ regression analysis results

	Model ②	Model ③	Model ④	Model ⑤	Model ⑥
Inn	3.818** (0.000)	5.560** (0.000)	0.094 (0.083)	0.075** (0.000)	-0.364** (0.000)
Ind	2.825** (0.000)	0.650** (0.002)	0.418** (0.000)	0.185** (0.000)	-0.241** (0.003)
Sta	0.571* (0.036)	0.129 (0.088)	0.141 (0.078)	0.124 (0.058)	-0.241 (0.077)
α_0	-1.461	-10.955	1.342	1.825	2.477
Adjust the R square	0.516	0.540	0.475	0.564	0.447

Note: P values are tested for significance in parentheses below the parameter, ** means there is a difference in mean values at 0.01 significance level, and * means there is a difference in mean values at 0.05 significance level.

From the regression results of models , the innovation ability of enterprises is positively correlated with the feedback and the number of dynamic updates of the community in the significance level of 0.01, indicating that the stronger the innovation ability of enterprises, the more active the interaction with investors, the more inclined to use crowdfunding platform information dissemination mechanism to communicate the quality of project information to potential investors. There is no significant correlation between the innovation ability of enterprises and the threshold of financing. The reason is that the evaluation of small and micro enterprises has great difficulty and uncertainty. There is a mismatch between the psychological price of project sponsors and the actual value of the project. Significant positive correlation between innovation ability and the amount of the lead investment shows that the professional judgment of the lead investor has obvious value discovery function. There was a significant negative correlation between the innovation capability of enterprises and the batch of funds credited to accounts, indicating that the more innovative projects, the less willing they are to accept the conditions of multiple installments.

5. Conclusions

Equity corwdfunding is a new financing tool for start-ups in China; it helps us to break the financing dilemma for small and micro enterprise. In this paper, this paper analysed the principle of operation mechanism in Chinese equity crowdfunding, and tested the effectiveness of operational mechanism using logistic regression model. It indicated that the financing threshold setting is negatively related to the probability of financing success. Leading mechanism plays a role of guiding and leading significantly, and the investment amount of leader is effective signal for ordinary investors. The fund management mechanism plays an important role in supervising the later stage of the project, but reduces the probability of financing success. The dynamic updating of project information has reduced the degree of information asymmetry

between project sponsors and investors to a certain extent, which has led investors to make more favourable investment decisions.

As an important form of Internet finance, equity corwdfunding has the characteristics of more efficient and more diverse than traditional finance. The operation mechanism of equity crowdfunding plays an important role in improving the financing efficiency of small and micro enterprises. And reasonable design operation mechanism of crowdfunding will provide a fair investment environment for investors.

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