

Analysis on the influencing factors of the fund raising amount of book publishing crowdfunding projects -- An Empirical Analysis Based on Modian Crowdfunding Platform

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Abstract: Book Publishing crowdfunding is a kind of product crowdfunding, which has become a new mode of operation in the book publishing industry. Based on Modian Crowdfunding Platform, one of the largest crowdfunding platforms in China, taking the book publishing crowdfunding project as an example, this paper collected the successful book publishing crowdfunding projects of the website by January 2023, and studied the factors affecting the amount of crowdfunding. The empirical results show that the target amount of the book publishing crowdfunding project, whether there are dynamic pictures in the project introduction, the project achievement rate, the number of support, the number of free support and the number of first project sponsors have a significant impact on the financing amount.

Key words: Book Publishing Crowdfunding; Financing Amount; Empirical Analysis

1. Introduction

Book publishing crowdfunding is a kind of product crowdfunding that has sprung up in recent years. It mainly promotes the content of books through the project sponsor on the crowdfunding platform, attracts interested readers or collectors to invest, and ensures the smooth publication and distribution of books. This study will collect the data of Modian crowdfunding, one of the largest crowdfunding platforms for book publishing in China, analyze the data of all aspects of the samples, and explore the factors that affect the amount of crowdfunding for book publishing, so as to provide references for all parties involved in book publishing and enrich the spiritual life of the people.

2. Analysis of factors affecting the amount of funds raised for book publishing crowdfunding projects and research assumptions

2.1 Regression model

This topic mainly studies the influencing factors of the fund-raising amount of the book publishing crowdfunding project. The dependent variable is the fund-raising amount of the book publishing crowdfunding project. The fund-raising amount is a continuous variable. Multiple regression model can be used for regression analysis

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \varepsilon$$

Y is the funding amount of the dependent variable; X_n is the influencing factor of various financing amounts; β_n is the influence coefficient of each influence factor; β_0 is a constant; ε is error.

2.2 Influencing factors

The project itself mainly includes the target amount, project introduction, project return level, whether the return design is a package, the level that investors like most, etc; The information of project sponsors mainly includes the number of project sponsors, who is the first sponsor, and the number of crowdfunding projects initiated by the first sponsor in Modian crowdfunding, etc; The promoters of Modian publishing crowdfunding projects mainly include publishers, book planning companies and creative culture companies. In addition, there are other promoters such as authors, translators, magazines and so on. The investor support mainly includes the number of supporters, the number of free supporters, the project achievement rate, the rate of favorable comments, the number of likes, the number of supporters of the most favorite grade of investors, and so on.

2.3 Research hypothesis

① .The project itself

The first one is the target amount. If the target financing amount is large, it indicates that there may be great innovation in book design, presentation form, etc; The sponsors will also try to increase the amount of financing, so we put forward the following research assumption:

H1: the target amount has a significant positive impact on the amount of financing.

Secondly, it analyzes the introduction of crowdfunding projects in book publishing. Generally, the effect of pictures and text, plus video introduction, is much better than that of simple text introduction. Therefore, the following assumption is put forward:

H2: the project introduction has a significant impact on the amount of financing.

The updated information of the project reflects the number of introductions to the progress of the project. The more dynamic release of the project, the more detailed financier's introduction to the progress of the project; Therefore, the following assumption is proposed:

H3: the number of project updates has a significant positive impact on the amount of financing.

Investors invest in order to obtain return on investment. Therefore, the following assumption is put forward:

H4: project return design has a significant impact on the amount of financing.

② .Investor support

The number of supporters represents the actual number of investors in the publishing crowdfunding project. In general, the more the number of supporters, the more the public like the book; relatively speaking, the project will get more financing. The number of unpaid expenditures does not require any return. Simply supporting a good project can also increase the amount of project financing; Therefore, the following assumptions are proposed:

H5: the number of supporters has a significant positive impact on the amount of financing.

H6: the number of free supports has a significant positive impact on the amount of financing.

The project achievement rate indicates the completion degree of the project. Under the condition of a certain target amount, the higher the achievement rate, the higher the amount of funds raised. Therefore, the following assumption is proposed:

H7: the achievement rate has a significant positive impact on the amount of financing.

The positive rate, the number of reports and comments and the number of likes all reflect the degree of support and love of investors for the project to a certain extent. In general, the higher the three factors, the better the project and the higher the funds raised. Therefore, the following assumption is proposed:

H8: investors' approval of the project has a significant positive impact on the amount of financing.

③ .Project sponsor

The first sponsors may be publishers, book planning companies, creative culture companies, authors, translators, magazines, newspapers, bookstores and other sponsors. Different first sponsors have different experience in crowdfunding projects. The more experienced sponsors are, the more influence and support they can win, thus affecting the amount of funding. Therefore, the following assumption is proposed:

H9: the project sponsor has a significant impact on the amount of financing.

3. Empirical analysis results and discussion of publishing crowdfunding projects

3.1 Sample data collection

This empirical analysis data comes from Modian Crowdfunding Platform, which is one of the largest crowdfunding platforms in China; Publishing crowdfunding is a category of product crowdfunding projects listed separately on the website. By the end of January 2023, there were 891 publishing crowdfunding projects in total, including 9 projects in the creative stage, 2 projects in the preheating stage, 28 in crowdfunding and 764 successful crowdfunding projects. This study selected successful crowdfunding projects, excluding some projects with incomplete basic information and some nonbook publishing projects. This survey collected a total of 564 samples of book publishing crowdfunding projects.

3.2 Sample descriptive statistical analysis

The following is a statistical description of 564 publication crowdfunding project variables. The results are shown in Table 1:

Table 1 description and statistics of sample data

Variable name	Unit	Minimum	Maximum	Average	standard deviation
Financing amount	¥ 10000	0.21	2020.24	40.70	127.964
Target amount	¥ 10000	0.1	25.00	3.74	3.454
Achievement rate	%	100.00	20202.40	973.00	1847.725
Whether there are dynamic pictures	/	0	1	0.16	0.370
Is there a video	/	0	1	0.58	0.495
Number of project updates	piece	0	114	13.78	11.385
Number of return evaluations	piece	1	89010	1653.96	5221.857
Favorable rate	%	90.86	100.00	99.36	1.035
Number of likes	piece	68	93818	2616.66	6012.464
Number of people supported	individual	9	87674	1673.51	5364.821
Number of free support	individual	0	2394	39.17	150.984
Level of return	piece	1	25	5.46	3.301
Maximum level amount supported	¥	25.0	2380.0	229.24	204.525
Maximum level of support	individual	9	61499	1040.79	3571.684
Whether the maximum supported level is a package	/	0	1	0.83	0.379
Number of sponsors	individual	1	5	1.38	0.704
Number of crowdfunding projects of the first sponsor	individual	1	40	7.47	8.715

First sponsor	/	1	4	2.55	0.841
Cultural creative company		0	1	0.38	0.487
Book planning company		0	1	0.10	0.299
press		0	1	0.39	0.487
other		0	1	0.13	0.386

3.3 Research variables

The funding amount of the book publishing crowdfunding project is the dependent variable; the independent variables are as follows: the target amount, achievement rate, whether there are dynamic pictures, whether there are videos, the number of project updates, the number of return evaluations, the rate of positive comments, the number of likes, the number of supporters, the number of free supporters, the level of return, the amount of the maximum level of support, the number of supporters of the maximum level of support, whether the maximum level of support is a package, the number of sponsors, the number of crowdfunding projects of the first sponsor, first promoter, etc. SPSS was used to conduct multiple regression analysis on the amount of financing.

3.4 Regression results

In the process of regression, all the independent variables mentioned above were used. After VIF-test, it was found that there was multicollinearity; Delete the three variables of the maximum number of likes-he amount of the maximum level of support, the number of feedback evaluations and the amount of the maximum level of support-and regress the remaining variables again. The VIF test results are shown in Table 2:

According to the VIF test results, the VIF of each variable is less than 5, and there is basically no multicollinearity in the model.

Table 2 empirical regression results

	B	Significance	VIF	
(constant)	315.080	0.092		
Target amount	3.679	0.000	1.473	
Achievement rate	0.022	0.000	2.264	
Whether there are dynamic pictures	17.625	0.001	1.077	
Whether there are videos	-4.579	0.248	1.095	
Number of project updates	-0.103	0.593	1.379	
Favorable rate	-3.686	0.049	1.064	
Number of people supported	0.011	0.000	3.551	
Number of free support	0.200	0.000	3.234	
Level of return	0.251	0.684	1.181	
Maximum level amount supported	0.016	0.097	1.097	
Whether the maximum supported level is a package	4.201	0.409	1.062	
Number of sponsors	-3.928	0.157	1.087	
Number of first sponsor projects	0.609	0.016	1.376	
First sponsor	press	33.635	0.000	3.900
	Cultural creative company	24.676	0.001	3.680
	other	15.375	0.093	2.703
	Book planning company	0		
Adjust R2		0.884		
F		259.378		
P		0.000		
Dependent variable: financing amount				

Taking the book planning company as the benchmark, and the first sponsor is the publishing house, the regression equation of the financing amount obtained is:

Financing Amount = 315.08+0.679* target amount +0.022 * achievement rate +17.625* whether there are dynamic pictures -3.686* favorable comment rate +0.011* number of support +0.200* number of free support +0.609* number of first sponsor projects +33.635* publishing house

3.5 Result analysis

The empirical results show that the target amount of book publishing crowdfunding projects has a significant positive effect on the

financing amount. The technology of book publishing crowdfunding project is mature, the target amount itself is small, and the investment risk is relatively small. A high target amount means that the book is excellent and the design is ingenious, which can arouse the interest of investors. The research hypothesis H1 is true.

The dynamic pictures in the project introduction have a significant impact on the financing amount, while the video has no significant impact on the financing amount. The research hypothesis H2 is partially true.

The number of project updates has no significant impact on the amount of financing, and the number of project updates has a negative impact on the amount of financing. Therefore, the more updates, the more information that the project is not progressing smoothly, which may affect the amount of crowdfunding. The research hypothesis H3 is not tenable.

Factors such as the level of return in the return design, the amount of maximum support level, and whether the maximum support level is a package have no significant impact on the amount of funds raised. Investors pay more attention to the content of books and are not sensitive to the price of books or package design. The research hypothesis H4 is not tenable.

There is a significant positive correlation between the number of support and the number of free support and the amount of financing. The greater the “herding effect”, the greater the amount of financing. Research hypothesis H5 and H6 are both valid.

The higher the achievement rate, the greater the amount of financing. Research hypothesis H7 holds.

The positive rate, the number of evaluation reports and the number of likes have a significant negative impact on the amount of financing. Due to multicollinearity, the number of evaluation reports and the number of likes are eliminated, and the positive rate has a significant negative impact on the amount of financing. The research hypothesis H8 holds that the positive rate has a significant impact on the amount of financing, but it is not a positive impact, but a negative impact.

In the case of project sponsors, the number of projects of the first sponsor has a significant positive impact on the amount of financing; The number of sponsors has no significant impact on the amount of financing; The nature of the first sponsor will also have an impact on the amount of financing. Taking the book planning company as the benchmark, the first sponsors are publishers and cultural and creative companies, which can significantly increase the amount of financing. The more crowdfunding projects initiated by the first initiator, the more experience, the better the project operation, and the higher the financing amount; However, the number of sponsors has no significant impact on the amount of financing, and does not show the effect of strong alliance. Who is the first initiator also has a significant impact on the financing results; Compared with book planning companies, publishing houses and cultural and creative companies are more able to increase the amount of financing, publishing houses have more experience in book publishing, and literary and creative companies may be better in the innovative design of books. The research hypothesis H9 is partially true.

4. Conclusion

This study takes Moidan Crowdfunding Platform as an example to empirically analyze the impacts of the project itself, the evaluation of investor support, and the sponsors on the amount of financing for book publishing. The research results have certain inspirational significance for the project initiator, such as, reasonable setting the financing amount, paying more attention to book content and book design, etc. Also for the crowdfunding platform, they should optimize the communication channels for project sponsors and reader investors, improve the management ability of crowdfunding projects, constantly enrich the book publishing market, attract more excellent book publishing projects, and enrich people’s spiritual and cultural life.

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