Research on the Normative Development of Public Welfare Crowdfunding Platforms from the Perspective of the Reputation Model

Chenghua Yang[1,*], Chunlan Li[2]

[1] *School of Finance, Jiangxi Normal University, Nanchang, Jiangxi, China*
[2]*Jiangxi Normal University Finance Office, Nanchang, Jiangxi, China*
[*]*Corresponding author*

Keywords: public welfare crowdfunding platform; reputation model; easy fundraising

Abstract: Public welfare crowdfunding refers to a way for people to ask for help by publishing fundraising projects through the Internet and raising funds to seek help. The "Nanning Girl Fraud Case" of Easy Fundraising reflects that there are many deficiencies in the country's public welfare crowdfunding platforms. Commercial platforms' tense relationship with public welfare undertakings has led to a serious commercialization tendency of public welfare crowdfunding platforms, and there is serious information asymmetry in the operation of public welfare crowdfunding platforms, lack of rules and regulations management, and lack of supervision. This paper is based on the reputation model. The incentive and restriction mechanism of the public welfare crowdfunding platform is used to analyze the behavior of public fundraising, combined with the current development situation in my country, and put forward effective suggestions for the supervision of public welfare crowdfunding platforms, such as opening up information channels, standardizing platform management, and improving legislative regulations, to promote the standardized development of public welfare crowdfunding platforms.

1. Introduction

In today's Internet age, public welfare crowdfunding platforms, as an emerging form of public welfare assistance, are increasingly recognized by the public for their advantages such as convenient payment methods, rapid dissemination advantages, and flexible fundraising channels. In this context, a large number of online public welfare crowdfunding platforms have also been established one after another, playing an important role in charitable relief. According to statistics, after three years of development, EasyChou has 180 million users and has helped 2 million families complete charitable fundraising. As a product of Easy Funding, Easy Mutual Assistance currently has more than 10 million users. At a time when public welfare crowdfunding is booming, there are still some loopholes and problems. For example, the "Nanning girl donation fraud incident" has caused heated discussions: Huang Lichen, a sophomore student of Sichuan Media College, is seriously ill, and her mother Deng Fangying raised funds through the Easy Funding platform. More than 250,000 yuan. Later, it was exposed by netizens that his family was wealthy. This has aroused great attention from all walks of

life on the chaotic operation of the public welfare crowdfunding platform, and they have expressed many doubts and dissatisfaction with the easy fundraising platform, and even led to doubts about the entire network of charitable donations. Compared with traditional charities, crowdfunding platforms have the characteristics of virtuality, which also exacerbates information asymmetry. The funds raised by Easy Funding will go directly to the account of the seeker after being reviewed, but they will not take the initiative to manage and supervise. It will appear that the fund-raising funds are not used to initiate the project, and at the same time, there will be opportunities for fraudulent donations and fraudulent donations. Therefore, how to supervise the crowdfunding platform well and reduce the non-compliant behavior of the crowdfunding platform is an urgent problem to be solved. Starting from the reputation model, this study constructs a dynamic game model analysis between crowdfunding platforms and regulators, and puts forward relevant suggestions for strengthening the supervision of crowdfunding platforms.

2. Literature Review

2.1. Research on Public Welfare Crowdfunding

Scholars mainly focus on the overall research of the industry for the problems existing in the operation of online public welfare crowdfunding platforms and their causes. It mainly includes research on the platform's fundraising subject, the platform's legal status[1], and the platform's credibility , pointing out that the supervision of online charity crowdfunding in my country is relatively lagging behind many problems[2]. Feng Chun et al. further summarized and sorted out the typical incidents of online charity anomie that have a greater impact, and proposed that the information for help is difficult to distinguish, which led to the frequent occurrence of online charity fraud and donations, lack of transparency in the use of donations, and profit-seeking behavior on online fundraising platforms and other anomie performance [3]. Regarding the research on specific online public welfare crowdfunding platforms or projects, for example, Wang Danyang pointed out that many problems need to be solved urgently, such as complicated functions, chaotic rules, and lack of supervision in the operation of the "easy fundraising" platform [4], Zhang Qiwei et al. From the perspective of resource dependence theory, it is found that Tencent's "99 Charity Day" activities are affected by institutional environment constraints and scarcity of charitable resources, and there are problems such as differentiated allocation of matching donation resources [5]. The platform donation project conducted research and found that the social long-tail effect of online charity crowdfunding is significant, and the Nash equilibrium characteristics of public welfare utility of charity assistance are not obvious [6].

2.2. Research on the Norm of Public Welfare Crowdfunding

In terms of regulation research on online public welfare crowdfunding platforms, Jin Jinping believes that the key to the legal regulation of online fundraising after the implementation of the Charity Law lies in three aspects: fundraising subjects, geographical restrictions on fundraising, and the legal status of online fundraising platforms [7]. Improve platform regulation in terms of organization access system setting, platform access system setting, platform public law obligation setting, etc. [8]. In addition, scholars in the field of public management and sociology have also put forward regulatory suggestions. For example, Yang Weiwei builds a regulatory path based on the collaborative participation of multiple subjects such as industry, charitable organizations, and society [9]. Li Jian specifically pointed out that in the network in the regulation and improvement of public welfare crowdfunding platforms, platform certification standards should be standardized, regional jurisdictions should be clarified, and preferential tax policies should be improved to establish a

standardized management system [10]. However, there is no systematic research on the configuration principles of information regulation tools for the phenomenon of severe information asymmetry in the online charity crowdfunding industry [11]; Ying Feihu et al. proposed in the configuration of information regulation tools that the selection of the correct tool should at least consider the exclusion of preferences or biases towards specific tools, the requirements for system implementation, and regulatory links [12]; It is proposed that the basic principle of information regulation tool configuration should be positioned in the principle of systematic, combinatorial and inclined configuration [13].

2.3. Literature Review

To sum up, the research on the current problems of online public welfare crowdfunding platforms and their regulation provides an important theoretical basis for this paper, but there are still some shortcomings. For example, when studying the platform operation mechanism and supervision system, few scholars focus on integration. Characteristics and game analysis of online public welfare crowdfunding platforms. Therefore, this paper uses game theory to explore the relationship between the main players in a specific platform and proposes an innovative regulatory mechanism based on the analysis of information asymmetry, lack of compliance management, and lack of supervision.

3. Concept Definition and Theoretical Basis

3.1. Concept Definition of Public Welfare Crowdfunding

Crowdfunding first appeared in European and American countries, and it can also be translated as mass fundraising or crowdfunding. In August 2006, American economist Michael Levine derived "crowdfunding" from "crowdsourcing", and defined it in Wikipedia as a way for people to pool funds through the Internet to support projects initiated by others or organizations group cooperation. In 2011, "Crowdfunding" was translated as "crowdfunding" by Chinese writer Han Yu and introduced into Chinese academic circles.

Public welfare crowdfunding is a branch of crowdfunding, which is the behavior of project initiators or people seeking help to raise funds from the public through Internet platforms to obtain help. In a broad sense, public welfare crowdfunding mainly refers to raising funds or other resources from the public. In a narrow sense, it refers to a public welfare fundraising project initiated by a public welfare organization or an individual on a crowdfunding platform. Investors provide financial support for the project. The initiation of a public welfare crowdfunding project must comply with the specific rules of the crowdfunding platform.

3.2. Reputation Model Theory

The KMRW reputation model is also known as the "Gang of Four" model. The KMRW reputation model of Kreps, Milgrom, Roberts, and Wilson (1982) proves that players' incomplete information about other players' payoff function or strategic space is important for equilibrium outcomes influence, cooperative behavior will appear in a finite number of repeated games, as long as the number of repetitions of the game is long enough. When the game is repeated enough times, cooperative behavior will appear in the finite-time game model.

In economics, reputation plays a very important role in economic activities as an important mechanism to ensure the honest execution of contracts. All credit activities must be based on the reputation of the participants. The reputation mechanism refers to an institutional arrangement that relieves the information asymmetry in the market economy and regulates the market order through

the combination of "incentive, restraint, and punishment", thereby establishing trust. The KMRW model means that under the condition of complete information, the limited number of repeated games of the participants will not lead to cooperative behavior of the participants, so incomplete information is introduced into the multi-stage repeated game, which proves that the participants pay the other participants the function or strategy. The incomplete information about the space has an important influence on the equilibrium result. In order to reduce the risk of opportunism and promote the establishment of a long-term cooperative relationship between the transaction parties, an incentive guarantee mechanism can be designed. The Anonymous Theory means that in repeated games, as long as the players have enough patience, there will be multiple possibilities for the players to reach a cooperative equilibrium. Therefore, to achieve long-term interests, participants are motivated to maintain the reputation of the participants who cooperate with them and combat the speculation of the other party.

4. Analytical Research Process

4.1. Crowdfunding Platform Event Review

EasyChou was established on September 19, 2014. It is a service platform that enables friends to help each other through Moments. It operates in crowdfunding. Easy Fundraising has a simple interface and perfect functions, which can quickly let users know about crowdfunding. It is mainly aimed at all social network users who are looking for financial help. It is currently the largest free fundraising platform in China. It has helped more than 1.6 million families with serious illnesses have successfully raised more than 20 billion yuan. However, with the rapid development of "Easy Fundraising" and "Easy Mutual Aid", more and more problems have appeared, such as fraud, false publicity, fraudulent donations, and misappropriation of member account funds. There are also numerous negative reports on the easy fundraising by the media:

Incident 1: On June 25, in Chongzhou City, Hu Caiyun and his 3-year-old son Xiaoxiao were scalded by boiling water. Xiao Xiao's chest, legs, buttocks, and other parts were seriously injured, and the burn area reached 55%. On July 3, Xiaoxiao's father raised nearly 400,000 yuan in one day. But later, the fundraising encountered many voices of doubt - "there are two houses, two cars", "three million children's insurance". Xiaoxiao's father was also forced to apply for a refund and chose to pay for treatment at his own expense.

Incident 2: On the morning of July 8, a major traffic accident occurred on the Zhongjiang Jiguang section of Sichuan Provincial Highway 106. A private car collided head-on with a motor tricycle, killing four people, three men, and one woman. On the 10th, a dramatic scene appeared on the Internet: the car involved launched "crowdfunding funeral expenses" on the Easy Funding platform, and raised a total of more than 23,900 yuan that day, but the fundraising page was subsequently closed.

Incident 3: In August, Huang Lichen, a second-year student at Sichuan University of Media and Communications, was seriously ill, and her mother, Deng Fangying, raised more than 250,000 yuan through the Easy Fundraising platform. Later, due to the exposure of netizens that her family was wealthy, Huang Lichen, who was recovering from a serious illness, used QQ space to scold the doubters with foul language. As the incident continued to ferment, Huang Lichen deleted the swearing-related news and apologized for it. Deng Fangying also responded to the fundraising news. She has communicated with the platform and decided to sell the property and return the donation within 72 hours. Qing chongchou then replied that it would strengthen the review of sponsor materials.

4.2. The Main Problems of Crowdfunding Platforms

4.2.1. The Problem of Information Asymmetry is Prominent

In the operation of the online public welfare crowdfunding platform, information is the data about the demand and supply of charity, and it is the synthesis of all the data that affects the allocation of charity resources and guides the maximization of resource allocation. Because charity is a public welfare activity, the authenticity and integrity of relevant information are the basic prerequisites for determining whether donors are willing to donate and continue to donate. However, the information problems caused by events such as "easy fundraising" this time are very prominent, and there is a serious asymmetry. This is mainly reflected in: First, there is a serious asymmetry between the information of the seekers themselves and the platform audit information. As far as the seeker and the platform are concerned, the seeker has an information advantage because he has more real information. The seeker can publish the fundraising application by filling in the fundraising amount and the explanation on the platform, but the seeker often fills in the request for help. When explaining, it will hide real financial information or exaggerate the seriousness of the illness for the sake of interest. As a bridge between seekers and donors, the platform must publicize and give feedback on donations, but at present, most online public welfare crowdfunding platforms cannot effectively publicize the use of funds promptly, so that the platform and donors can communicate with each other. There is information asymmetry between donors, which greatly limits the donor's supervision function for the use of donations.

4.2.2. Platform Management Has Significant Risks

Judging from the current operation of online charity crowdfunding platforms, there are obvious deficiencies in the governance mechanisms of most platforms, mainly including chaotic internal governance mechanisms, lax auditing of fundraising information, and weak fund supervision. Although the online charity crowdfunding platform represented by "easy fundraising" has strengthened self-discipline and internal risk control through self-discipline conventions and other forms, there are still great hidden dangers in its implementation in practice. For example, "easy fundraising" was exposed not long ago. Its employees use the ground-push method to guide patients to initiate crowdfunding, and employees' wages are commissioned according to the amount and amount of crowdfunding initiated, and there are behaviors such as filling in the number of donations at will and intentionally concealing the property status of the seekers. Secondly, the platform's incentive mechanism for employees and the platform's public welfare value can easily lead to internal conflicts and behavioral deviations. As a platform with a charitable nature, performance management is based on the number of people who release information for help. There is a certain deviation from the value target of the platform. Therefore, it is easy to cause the result that the value guidance cannot play its due effect at all, and the behavior of employees is increasingly commercialized and profitable.

4.2.3. Lack of Existing Legal Regulations

While my country's online charity crowdfunding platform is booming, relevant external regulatory rules have not been deployed effectively and promptly, my country's current regulations on online charitable fundraising behaviors and the regulation of charitable platform companies such as Easy Funding have problems of dislocation and regulatory vacuum. This is because: First of all, platforms like Easy Funding are not charitable organizations, and their activities are not regulated by the civil affairs department. Secondly, since the fundraising information published on the online charity crowdfunding platform belongs to personal relief information, the fundraising information also does not fall within the scope of legal regulation. Since personal relief information is not public

information for charitable fundraising, there is no way to monitor the authenticity of the information. Therefore, there are still a lot of deficiencies in the legal regulation of online public welfare crowdfunding platforms.

5. Game Analysis

As the main means of alleviating information asymmetry in the market economy, the reputation mechanism can reduce the cost of information acquisition to a certain extent. In the process of crowdfunding, the reputation of the public welfare crowdfunding platform has to be repeatedly traded and a trust relationship can be established before the reputation can fully play its role. By building a reputation model, the behavior of public welfare crowdfunding platforms and regulators is analyzed.

5.1. Model Assumptions

The model assumes that in a fully competitive market environment, the two sides of the game are the public welfare crowdfunding platform and the regulatory agency. It is assumed that there are two types of public welfare crowdfunding platforms: low-risk public welfare crowdfunding platforms with a good reputation engaged in compliance projects and public welfare crowdfunding platforms with a poor reputation. A high-risk public welfare crowdfunding platform engaged in non-compliant projects. Due to information asymmetry, regulators do not know the true type of public welfare crowdfunding platforms, but by observing the behavior of public welfare crowdfunding platforms, they can infer the type of public welfare crowdfunding platforms, and constantly revise their judgments to decide subsequent regulatory measures.

Referring to the single-stage utility function, this study constructs:

$$U(R) = -\frac{1}{2}R^2 + \alpha(R - R_e) \tag{1}$$

For the convenience of analysis, α $(0 \leq \alpha \leq 1)$ is used to represent the type of public welfare crowdfunding platform,

Assuming that there are only two types of $\alpha=0$ or $\alpha=1$,

$\alpha=0$ represents a low-risk public welfare crowdfunding platform

$\alpha=1$ represents a high-risk public welfare crowdfunding platform

R represents the profit earned by the type of project undertaken

R=0 means compliance project

R=1 means the non-compliant item

R_e is the profit expectation achieved by the regulatory agency's illegal operation of the public welfare crowdfunding platform

$-\frac{1}{2}R^2$ Indicates the degree of penalties imposed by regulators on public welfare crowdfunding platforms

$\alpha(R - R_e)$ Indicates that the illegal operation of the public welfare crowdfunding platform exceeds the revenue expected by the regulator.

5.2. Model Analysis

According to the assumptions of the model, the game between regulators and public welfare crowdfunding platforms is a dynamic game with incomplete information, and the extended dynamics of the model are as follows. In the initial stage of the game, because the information of the public welfare crowdfunding platform is private, the regulator can not understand the information in detail. Although the regulator does not know the specific type of public welfare crowdfunding platform, the

prior probability can be calculated based on experience. The platform chooses to engage in actual actions of compliance operations or illegal operations. The regulatory agency observes the actions of the public welfare crowdfunding platform and adjusts its judgment. At this point, the game is over.

First, it is difficult for regulators to distinguish the nature of the public welfare crowdfunding platform. If the probability that the public welfare crowdfunding platform is considered to be a low risk is P1, the reputation of the public welfare crowdfunding platform can be regarded as P1. In the first stage, the public welfare crowdfunding platform weighs the benefits brought by the two options of compliance and violation according to the maximization of utility. If the revenue of the compliance project is large, the platform will choose compliance operation. If the income is large, then the public welfare crowdfunding platform will choose to violate the regulations. The regulatory agency will revise the original judgment based on the behavior of the first stage. If the public welfare crowdfunding platform chooses to violate the regulations, the regulatory agency will determine that the platform is high risk and determine its P2=0. If the public welfare crowdfunding platform is legal, the regulator's trust in the platform will increase to P2, that is, P2/P1>1. Therefore, in the first stage, if the public welfare crowdfunding platform violates the regulations, the reputation will become 0. If the public welfare crowdfunding platform wants to continue to operate, it will have to pay more costs, while the public welfare crowdfunding platform that pretends to be compliant will have a good reputation. Reputation for lower costs and better yields. The above game will be repeated a limited number of times. Before the final stage, the public welfare crowdfunding platform will not choose to violate the regulations, but will use the incentive mechanism of reputation to make the high-risk public welfare crowdfunding platform pretend to operate in compliance to maintain its reputation, thereby reducing market risks. According to the model assumptions and analysis framework, the game analysis is as follows:

In the single-stage game process, (1) is derived $\frac{\partial U}{\partial R}$=-R+α is 0, obviously, R=α=1, U=$\frac{1}{2}$-rR$_e$.

That is, in a single game, the high-risk public welfare crowdfunding platform does not need to maintain a good reputation and will conduct illegal operations.

In the multi-stage repeated game process, to further analyze the cognition of the platform based on its actions when the regulators observe the actions of the public welfare crowdfunding platform, a new reputation level about the platform is formed.

(1) The Posterior Probability of Public Welfare Crowdfunding Platforms

P_t represents the probability that the regulator considers the public welfare crowdfunding platform to be low-risk at stage t;

M_t is the probability that the public welfare crowdfunding platform chooses a compliance strategy to maintain its reputation in stage t;

N_t is the probability that the regulator believes that the public welfare crowdfunding platform chooses compliant operations to maintain its reputation at stage t.

In the equilibrium state, the regulatory agency and the public welfare crowdfunding platform have a mutual cognitive equilibrium, with N_t=M_t. In the equilibrium state in stage t, if the regulatory agency does not observe the illegal operation of the public welfare crowdfunding platform, according to Bayes' rule, the posterior probability that the public welfare crowdfunding platform has a good reputation in the t+1 stage is:

$$P_{t+1}(\alpha=0 , R=0)= \frac{P(\alpha=0)\times P\left(\frac{R=0}{\alpha=0}\right)}{P(\alpha=0)\times P\left(\frac{R=0}{\alpha=0}\right)+P(\alpha=1)\times P\left(\frac{R=0}{\alpha=1}\right)} = \frac{P_t\times 1}{P_t\times 1+(1-P_t)\times N_t} \geq P_t \tag{2}$$

That is, if the public welfare crowdfunding platform chooses to operate in compliance with the regulations in period t, the probability that the regulatory agency considers the public welfare crowdfunding platform to be low-risk in period t+1 increases. Conversely, if the regulatory agency

observes the illegal operation of the public welfare crowdfunding platform at stage t, the posterior probability that the public welfare crowdfunding platform is considered to be in good standing is:

$$P_{t+1}(\alpha=0, R=1)= \frac{P(\alpha=0)\times P\left(\frac{R=1}{\alpha=0}\right)}{P(\alpha=0)\times P\left(\frac{R=1}{\alpha=0}\right)+P(\alpha=1)\times P\left(\frac{R=1}{\alpha=1}\right)} = \frac{P_t\times 0}{P_t\times 0+(1-P_t)\times N_t}=0 \qquad (3)$$

That is, if the public welfare crowdfunding platform chooses to operate illegally, the regulator can speculate that the public welfare crowdfunding platform is a high risk, and the reputation becomes 0 in the t+1 stage. Based on the above analysis, **it can be seen that a rational high-risk** public welfare crowdfunding platform will not choose not to maintain its reputation.

(2) Final two-stage game analysis

In the T stage, for the high-risk public welfare crowdfunding platform ($\alpha=1$), it is no longer necessary to choose to maintain a good reputation. Therefore, the optimal choice is illegal operation (R=1). The expected judgment of the regulatory agency on the public welfare crowdfunding platform $R_e=R\times(1-P_T)=1-P_T$. At this time, the utility level of the public welfare crowdfunding platform is:

$$U=-\frac{1}{2}R^2+\alpha(R-R_e)=-\frac{1}{2}+P_T \qquad (4)$$

After the derivation, we can see that the utility of the high-risk public welfare crowdfunding platform in the T stage is an increasing function of reputation, which means that it has the motivation to establish a good reputation. In the T-1 stage, it is assumed that the high-risk public welfare crowdfunding platform will choose to pretend to actively maintain a good reputation. For the convenience of analysis, only two pure strategic situations, $M_{T-1}=0$ and $M_{T-1}=1$, are analyzed. Comparing the effectiveness of the two strategies of the public welfare crowdfunding platform in the T-1 stage, if the public welfare crowdfunding platform chooses illegal operations, that is, $M_{T-1}=0$, $R_{T-1}=1$, according to (3), $P_T=0$, That is to say, in the T-1 stage, after the regulatory agency knows the illegal operation of the public welfare crowdfunding platform, it determines that it is a high-risk public welfare crowdfunding platform in the T stage. If δ is the discount factor of the public welfare crowdfunding platform, then the public welfare crowdfunding platform at this time. The total utility is:

$$U_{T-1}(1)+\delta\times U_T(1)=-\frac{1}{2}R_{T-1}^2+(R_{T-1}-R_{T-1}^e)+\delta\times(-\frac{1}{2}R_T^2+R_T-R_T^e) \qquad (5)$$

From (4) and the conditions, it can be seen that the above formula,

$$=\frac{1}{2}-R_{T-1}^e-\frac{1}{2}\delta \qquad (6)$$

If the high-risk public welfare crowdfunding platform chooses compliance operations in the T-1 stage, that is, $M_{T-1}=1$, $R_{T-1}=0$, then the total utility of the public welfare crowdfunding platform is:

$$=U_{T-1}(0)+\delta\times U_T(1)=-R_{T-1}^e+\delta\times(-P_T\frac{1}{2}) \qquad (7)$$

If (5) ≤ (6),

$$\frac{1}{2}-R_{T-1}^e-\frac{1}{2}\delta\le -R_{T-1}^e+\delta\times(P_T-\frac{1}{2}) \qquad (8)$$

Simplified to get: $P_T\ge\frac{1}{2\delta}$, from the above-known conditions, in equilibrium,

$$M_{T-1}=N_{T-1}=1, \text{ then there are } P_{T-1}=P_T\ge\frac{1}{2\delta} \qquad (9)$$

It can be seen from (8) that in the T-1 stage if the regulatory agency considers that the high-risk public welfare crowdfunding platform is low-risk, the probability is not less than $\frac{1}{2\delta}$, a high-risk public

welfare crowdfunding platform will choose a low-risk public welfare crowdfunding platform disguised as a compliant operation to maintain its reputation. Therefore, the Nash equilibrium strategy of this game is that when δ is large enough, high-risk public welfare The crowdfunding platform will not choose illegal operations in the T-1 stage; this result can be similarly deduced to the T-2, T-3...2, 1, and other stages, that is, the high-risk public welfare crowdfunding platform takes advantage of its reputation in the T stage. The offending action was not previously selected as its balancing strategy.

It can be seen from the above game analysis that in the single-stage game, the high-risk public welfare crowdfunding platform has no motivation to maintain its reputation. In the multi-stage repeated game, because the reputation of the previous stage has an impact on the reputation of the next stage and after, reputation has a certain incentive effect on the behavior of high-risk public welfare crowdfunding platforms. To gain more utility, it will disguise itself as a low-risk public welfare crowdfunding platform to engage in compliance operations and build a good reputation.

As a signal, the reputation of public welfare crowdfunding platforms can reduce the risk of high-risk public welfare crowdfunding platforms engaging in illegal operations, and is an effective measure to improve supervision efficiency under the condition of information asymmetry. The public welfare crowdfunding platform relies on the traffic of many users and realizes the income, and a good reputation is conducive to attracting more investors and fundraisers, thus creating a virtuous circle; if the reputation is damaged, it will increase the publicity cost of the public welfare crowdfunding platform and reduce it. Platform traffic, therefore, there is an incentive for public welfare crowdfunding platforms to increase customers and strengthen management to improve reputation.

6. Conclusions

Based on the above model analysis, the following conclusions can be drawn: Under the condition of information asymmetry, the discount factor and reputation of public welfare crowdfunding platforms are the constraints for engaging in illegal operations. Therefore, in the initial stage, self-discipline is achieved by enhancing the reputation of the public welfare crowdfunding platform, and the public welfare crowdfunding platform with a higher reputation is less likely to operate illegally. Regulators of high-risk public welfare crowdfunding platforms with low reputations should strengthen management and increase the cost of their illegal operations. A good reputation of a public welfare crowdfunding platform needs to be supported by corresponding institutional arrangements. These systems mainly include a sound public welfare crowdfunding platform construction, an efficient internal management mechanism, an open crowdfunding industry information evaluation mechanism, etc. In China, there are still certain obstacles in the play of the reputation mechanism of public welfare crowdfunding platforms. In order to give full play to the incentive mechanism and restraint role of reputation, we should start from the conditions of improving the reputation mechanism and explore the appropriate path.

6.1. Open Up Information Channels for Public Welfare Crowdfunding Platforms

According to the existing norms, the establishment of the supervisory body of the online charity crowdfunding platform is conducive to regulating the qualifications of the platform, clarifying the responsibilities and obligations that the platform should perform in the process of releasing personal help information, carrying out fundraising activities and providing services; on the other hand, in order to further guide and create a good online charity environment, consider establishing and improving the information communication and sharing mechanism between the civil affairs department and the Internet information content management department, the Ministry of Industry and Information Technology and other management departments, the credit information disclosure mechanism and the illegal behavior coordination mechanism, and improve the public welfare.

Crowdfunding platform entry threshold and exit mechanism to promote the standardization and consistent development of public welfare crowdfunding platform.

6.2. Standardize the Compliance Management of Public Welfare Crowdfunding Platforms

Public welfare crowdfunding platforms should pay more attention to their reputation mechanism and standardize the internal governance structure of the platform, which is mainly reflected in the personnel management, risk control, performance evaluation, and information disclosure of public welfare crowdfunding platforms. First, the public welfare crowdfunding platform managers should improve the management methods and management concepts of the staff, and strengthen the emphasis on the reputation of the platform and the long-term development of the platform. Second, the internal risk control of the public welfare crowdfunding platform should be improved, including the strategic planning, procedures, and operational procedures of risk management. Third, public welfare crowdfunding platforms should disclose relevant information in a timely and effective manner, so that the public can participate in supervision and management, and promptly crack down on fraudulent donations and misappropriation, to promote the standardized development of public welfare crowdfunding platforms. Finally, the disciplinary mechanism of the donation-based crowdfunding industry should be improved, and the punishment should be increased. Increase the penalties for public welfare crowdfunding platforms that carry out illegal operations, implement stricter supervision mechanisms, increase the cost of illegal operations, and make them dare not carry out illegal operations.

6.3. Improve the Legislative Provisions Related to Public Welfare Crowdfunding

Public welfare crowdfunding platforms lack relevant laws and regulations, and the authenticity of information is questioned to some extent. It is necessary to regulate the boundaries of donation-based crowdfunding in the form of clear legislation, clarify the specific responsibilities of regulatory authorities, and build a sound regulatory system. My country's legislation on online donation-based crowdfunding is not perfect. Only some provisions in the Charity Law and the Contract Law can be used for reference, but the legal issues of online public welfare are not clear. The process of donation-based crowdfunding, regulatory mechanisms, illegal acts, etc. also lack legal rules. Therefore, legal norms for donation-based crowdfunding should also be issued as soon as possible, clarifying the nature, legal status, and organizational form of donation-based crowdfunding, and regulating the market access, business scope, operation model, and capital flow of public welfare crowdfunding platforms. Make donation crowdfunding sunshine and legalization.

Acknowledgment

References

[1 Peng Xiaolan, Gao Lingyun. Realistic Dilemma and Governance Countermeasures of Internet Philanthropy. Economic and Social Development, 2018 (5): 78-82.

[2] Yang Ruiyu, Ma Xiao. Research on the current situation and risk prevention of online public welfare crowdfunding. Learning and Practice, 2017 (2): 81-88.

[3] Feng Chun, Huang Jingwen. Internet charity anomie and its governance [J]. Journal of Guizhou University of Finance and Economics,2019(5):102-110.

[4] Wang Danyang. The regulatory path of online crowdfunding platforms from the perspective of charity law: Taking "easy fundraising" as a research sample. Tianjin Law, 2017 (3): 45-50.

[5] Zhang Qiwei, Xu Jialiang. A Preliminary Study on the Pattern of Double Dependence in Online Charity Fundraising——Taking Tencent's "99 Charity Day" as an Example. Jiangxi Social Sciences, 2019 (4): 210-220.

[6] Shao Xiangdong. Fundraising mechanism and governance orientation of major disease relief public welfare charity network. Social Security Research, 2017 (6): 67-79.

[7] Jin Jinping. Legal regulation of online fundraising after the implementation of the Charity Law. Fudan Journal (Social Science Edition), 2017 (4): 162-172.

[8] Shen Guoqin. Analysis of the Necessary trend of charity online fundraising Relationship based on the Social and legal attributes of charity Law [J]. Academic Exchange,2019(3):75-82.

[9] Yang Weiwei. "Seven-dimensional" Collaborative governance: Promoting the standardization construction of Chinese Internet Public Fundraising Information Platform -- Based on the analysis of the first 11 public fundraising information platforms [J]. Theoretical Monthly,2019(6):145-154.

[10] Li Jian. Research on the Standardized Management of Internet Public Fundraising Platforms. Journal of Social Sciences, 2018 (3): 79-84.

[11] Xing Huiqiang. Legal regulation of information asymmetry: the perspective of civil and commercial law and economic law. Legal System and Social Development, 2013 (2): 112-119.

[12] Ying Feihu, Tu Yongqian. Information tools in public regulation [J]. Social Sciences in China,2010(4):116-131.

[13] Li An'an. Information Regulation of Internet Financial Platforms: Tool Mode and Legal Reform. Social Sciences, 2018 (10): 99-107.