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A framework for Crowdfunding platforms to match services between funders and fundraisers

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Abstract

Purpose - A framework is suggested in this paper which will help crowdfunding platforms to match projects according to expectations of funders, leading to successful campaigns and thus increase the profitability of the crowdfunding platform.
Research design, data, and methodology – The paper is theoretical and conceptual in nature which proposes a model for crowdfunding platforms to match expectations of crowds with project fundraisers.
Results - Crowdfunding platforms are going through incremental innovations in order to match customer (funders and fundraisers) expectations. Leading crowdfunding platforms like Kickstart holds benchmark for other players in the market but the secret of success lies in matching quality projects with the appropriate funders. Crowdfunding platforms have to securitize the projects and allow only quality projects but also provide a wide range of options for funders. Thus, to manage this trade-off between quality and quantity of options, a framework is proposed.
Conclusions - Crowdfunding platforms have to adopt a model which will help them in providing a perfect match between crowds and fundraisers. Each member of the crowd and every project will be assigned a category and rating based on the past records. Securitization of projects will help to entertain only demanded projects which will reduce the number of failing campaigns.

Keywords: Crowdfunding, Fundraisers, Funders, Fintech, Services.

JEL Classifications: G40, P20, P43

1. Introduction

Crowdfunding has been peddled as financial innovation, a FinTech, a booming financial industry, and the next big thing in finance. The idea of matching people and organizations who need money for starting a project or business with the people who want to invest money is not new; what is new is the way this concept of intermediation which is facilitated by technological innovations (Cumming & Zhang, 2018). Intermediaries are typically the crowdfunding platforms, of which the main aim is to connect and match fundraisers to the crowd (Kim & Moor, 2017). The crowdfunding is an economical and easy way to raise funds as it reduces the number of intermediaries and commission agents as funds move directly from funders to fundraisers through an online platform (Terry et al., 2015). The rise of crowdfunding has its roots in “collaborative finance” and the “crowdsourcing” idea. As per the forecast of World Bank that the industry is estimated to be up to USD 90-96 billion per year by 2025. After the crisis of 2008, banks were restrictive in lending which made borrowers look for alternatives and decreasing interest rates made investors seek for other investment options which yield good return (Delivorias, 2017; Senadjki, Mohd, Bahari, & Hamat, 2017).

Crowdfunding defines a system of financing in which a large number of contributors also known as “backers,” provide the financial support to achieve a mutual goal. Crowdfunding portals actually replace traditional bank, it acts as an intermediary (Belleflamme, Lambert, & Schwienbacher, 2014; Le Tan & Su, 2018; Klohn & Hornuf, 2012). Some crowdfunding portals charge a fee of between 5% and 11% of the total amount of funding in the case of a successful campaign.

According to the Statista report 2018, Transaction value in the crowdfunding segment amounts to US$5,250m in 2018. The average funding per campaign in the crowdfunding segment amounts to US$818 in 2018. From a global comparison perspective it is shown that the highest transaction value is reached in China (US$4,105m in 2018). Led by renowned platforms, such as CreditEase, Renrendai, ppdai.com, Yooli.com, and others, China’s peer-to-peer (P2P)

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industry continues to grow (Aveni & Jenik, 2017).

2. Literature review

Crowdfunding is an innovative method of funding a project or idea through a contribution made by the general public known as the crowd (Jenik, Lyman, & Nava, 2017). Alonso (2015) stated crowdfunding a novel approach where investors provide monetary support to business proposals in return of monetary or non-monetary benefits. Heminway and Hoffman (2010) defined crowdfunding as a phenomenon where start-ups raise funds from a group of people through the internet which is supported by social networking and viral marketing.

Kirby and Worner (2014) credited the financial crisis of 2008 for the surge of crowdfunding growth and expansion. A crowdfunding portal does exactly what financial intermediaries used to do in traditional fundraising with more convenience and efficiency (Belleflamme et al., 2014; Klohn & Hornuf, 2012; Dorfleitner, Hornuf, Schmitt, & Weber, 2017; Barasinska, & Schafer, 2014; Amuna, 2019; Baber, 2019a).

Crowdfunding is gaining a lot of popularity in recent years. A report from fundly.com, 2017 stated that a new crowdfunding campaign is started every three minutes and there are between 18,000 and 22,000 projects open at any one time. Currently, the number of platforms in the U.S. is 191, which is growing at an exponential 350% rate year over year. The average amount raised by individual projects is $7,000 across platforms. It is a link between funders (investors) and fundraisers (investees). Crowdfunding provides financial support to the individuals and organizations which usually do not have access to banks and capital market (Sauerman, Franzoni, & Shafi, 2019; Baber & Chinar, 2018; Dushnitsky & Fitza, 2018). Contributors are not usually investors as there some types of Crowdfunding which are based on donation or non-financial rewards. Contributors are a group of regular people who contribute a small amount for a cause, idea or projects.

Most of the authors distinguish Crowdfunding into four types: donation based, reward based, loan based and equity-based (Austin, Stevenson, & Wei-Skillern, 2006; Massolution, 2012; Agrawal, Catalini, & Goldfarb, 2011; Kirby & Worner, 2014; Macht & Weatherston, 2015; Wahjono & Marina, 2015; Roig-Tierno, Blasco-Carreras, Mas-Tur, & Ribeiro-Navarrete, 2015; Pichler & Tezza, 2016; Baber, 2019b; Dorfleitner et al., 2017; Kim & Moor, 2017; Ordanini, Miceli, Pizzetti, & Parasuraman, 2011; Jenik et al., 2017).

Donation-based crowdfunding is a charity based contribution where contributor does not expect anything except peace of heart and mind by helping a cause (Dorfleitner et al., 2017; Andreoni, 1989; Wahjono & Marina, 2015; Boitan, 2016; Martínez-Climent, Costa-Climent, & Oghazi, 2019). Reward-based crowdfunding allows individuals contribute in return of some non-financial reward like name in the list of contributors or free products or subscription (Bradford, 2012; Chemla & Tinn, 2018; Ordanini et al., 2011; Liu, Nacher, Ochiai, Martino, & Altshuler, 2014; Roma, Gal-Or, & Chen, 2018; Allison, Davis, Short, & Webb, 2015; Kim & Moor, 2017; Greenberg, Pardo, Hariharan, & Gerber, 2013; Austin et al., 2006; Shahab, Ye, Riaz, & Ntim, 2019). Lending-based crowdfunding is just like a loan to the fundraiser on predetermined interest rates (Bruto, Khavul, Siegel, & Wright, 2015; Duarte, Siegel, & Young, 2012; Ravina, 2012; Berns, Figueroa-Armijos, da Motta Veiga, & Dunne, 2018). Equity-based crowdfunding makes contributors shareholders and receives a share of profit (Block, Hornuf, & Moritz, 2018; Hornuf & Schwienbacher, 2017; De Buysere, Gajda, Kleverlaan, Marom, & Klaes, 2012; Agrawal et al., 2011; De Crescenzo, 2016; Magnuson, 2018).

According to report Crowdfunding monitor, 2018, there are over 2000 crowd-funding platforms operating in the world. The ‘Veronica Mars Movie Project’ holds the record for the fastest Kickstarter campaign to reach both $1 million and $2 million, as well as the highest goal to be met yet, all within 12 hours of going live (McMillan, 2013). Mollick and Kuppuswamy (2014) found that 90% of successfully funded crowdfunding projects turned into ongoing ventures. The highest concentration of entrepreneurs and investors is observable in Europe, Chile, New Zealand and on the coast of Australia and the USA (Agrawal, Catalini, & Goldfarb, 2015).

Thus, crowdfunding has been called the great equalizer, because as Harrison (2013) argues, anyone with a good idea can access global backers or contributors and a global market. As an intermediate of funders and fundraisers, a crowdfunding platform offers the information and matching service between the crowd and projects (Wu, Huang, Li, & Chu, 2018). Kickstarter statistics expose that only 44% of projects meet their funding objective, and of roughly 60,000 projects, nearly 40,000 of them failed to even reach 20% of their goal (Murphy, 2018). Even when funded, an independent fulfillment analysis of 500,000 backers on Kickstarter, revealed that 9% of Kickstarter projects flop to bring rewards (Mollick, 2016). There must a perfect matching mechanism which can reduce the rate of failure for a crowdfunding campaign and let them allow only projects which can reach to their goal.

3. Discussion

3.1. Matching of funders and fundraisers by Crowdfunding platform

There are three parties actively involved in crowdfunding process i.e. funders, fundraisers and crowdfunding platform. The fourth one is a bank where money is deposited, acts as a passive member. The number of funders and fundraisers has an impact on the overall success of crowdfunding.

Most crowdfunding platforms generate revenue by charging a percentage commission on funds paid out to fundraisers. This commission is typically calculated from the total funds raised, and/or based on achieving a "fully-funded" goal. In addition, crowdfunding platforms can adopt two funding options – "all or nothing" or "keep it all" (Cumming, Leboeuf, & Schwienbacher, 2015). Most widely used crowdfunding model is "All-or-nothing" model (AON). This model is based on the idea that a project can only be successful when the target investment is reached. If the target is not achieved that means funders do not support this cause or don't have trust in the success of this project. In that case, funds are returned to the contributors who have already contributed. This model is more prone to success as projects will either start or don't take off at all. World largest crowdfunding platform Kickstart and Startnext uses the same model. The percentage of projects successfully funded by crowdfunding is 36% on Kickstarter and 54% on Startnext covering the years 2011 till mid-2017. This means that only half of the projects succeed on Startnext and more than one in three projects on Kickstarter. Therefore, it is good to know about aspects that define the success of a funding campaign in order to increase the probability to get funded. Project quality is associated to crowdfunding success, and projects with a higher quality level are more likely to be funded successfully. Success factors for crowdfunding have already been discussed by several authors. The most important for a crowdfunding project to become fruitful is the project itself. This means that funders assess the quality of the product, the team and the likelihood of success. However, entrepreneurs should also avoid spelling mistakes on websites and in documents, as they signal a low project quality for funders (Mollick, 2014).

On the other hand, "Keep-it-all" (KIA) model transfers all funds in the account of fundraisers weather target is achieved or not. Such projects may face a shortage of funds in the future and may turn failure.

Crowdfunding platform's profit depends solely on the success of the project that means fundraisers must achieve their target and funders must find the project of their choice. There should be a perfect match between the funders quantum of contribution and return expectations and fundraisers target. There should be a proper securitization of projects so that fewer projects should miss the investment target set up by fundraisers and at the same time provide wide-range of options to the funders to select the project on the basis of the ability to contribute being platform sustainable and profitable. In general, projects with outstanding ideas and a broad follower base are more likely to achieve a high funding amount.

3.1.1. Crowdfunding platform

The profit of the crowdfunding platform is positively correlated with the success of projects. Crowdfunding platform charge high fees after the increase in the number of successful campaigns. Successful projects will increase market from both side's funders and fundraisers. In order to maintain the high quality of projects and good success rate of successful projects, crowdfunding platform has to ensure a strict securitization of projects. Koch and Siering (2015) found that the gravity of the project description and the number of projects previously backed has a positive influence on the success of a crowdfunding campaign. Crowdfunding platform has to make sure that only quality projects are entertained in the system while providing a range of options to the funders. This situation is a trade-off between quality and options. The figure below shows the spectrum of securitization over the different categories of projects.

High securitization will be required by the projects where investment is high and the number of funders involved is high. The success of such projects will impact the success of the crowdfunding platform. A new crowdfunding platform cannot afford to handle such projects initially but gradually such projects should be taken. Low securitization is required in projects where investment is low and funders are less in number. This spectrum will help to match the funders and fundraisers better which eventually will lead to the success of the project. A high-level matching service makes the arrangement of funders and fundraisers more efficient, but it also raises the cost. A matching service is an important competency for crowdfunding platform markets.

When a contributor is more focused on the quality of projects, platform managers will be also evaluate every project and its quality because high average quality is directly related to the whole success rate of a crowdfunding. Also success rate is one of the significant measures for the contributors to estimate the status of a crowdfunding platform. On the other hand, if there are many fundraisers and few contributors, it is likely to be a big challenge for fundraisers to touch their mark because of few potential contributors. This state has impact on the profitability of the crowdfunding platform, means if project fails crowdfunding platforms have to transfer back all money to contributors and will not charge any commission as transaction fee to fundraisers. Furthermore, if the large number of fundraisers, it would cause website or application slow down, and therefore reduce the online experience and satisfaction of everyone which in turn, increases the costs of crowdfunding platform. So it is wise to constrain the participating fundraisers so that most of the projects will reach their target.

Investment Volume	Number of funders required
High	Many
High	Few
Average	Average
Low	Many
Low	Few

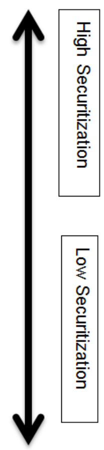

Figure 1: The spectrum of securitization in Crowdfunding

3.1.2. Fundraisers

Crowdfunding platform evaluates the project on the basis of quantum of investment. It depends on the life cycle and reputation of crowdfunding platform to determine the range of different classifications of projects. Projects can be differentiated into three types: (a) Giant project (b) affordable projects and (c) micro projects. Giant projects require heavy investment and can only be invested by the higher contributor group. Affordable projects are economical in their investment as well in return. Microprojects allow new members to try crowdfunding for the first time as an investment is low. It is also good to invest in various micro-projects to mitigate risk. A study by Forbes (2017) suggests that project creators should set the lowest possible funding goal for their project, as participants are drawn to campaigns with a higher percentage funded compared to higher amounts funded.

Projects in each category will get a rating from the crowdfunding platform based on the quality of the idea and expected returns. This rating will help contributors to know the best project in each class and these good projects will achieve their target investment easily, hence the success of the crowdfunding campaign increases. In this process, the crowdfunding platform will not entertain the bad quality project and hence save their reputation. In “All-or-nothing” (AON) model, these ratings will be helpful to reduce the number of nothing and increase the number of projects which will achieve all targets. It is always good for a contributor to invest in the highly rated affordable project rather than low rated giant projects and the same applies between affordable and micro projects. The time to market is negatively correlated with a campaign’s success, which means that funders also prefer projects that guarantee a short time of delivery (Brüntje & Gajda, 2016).

3.1.3. Funders

Funders or contributors are the groups of people who contribute to an idea or a project. All contributors are not the same, some are experienced, while some are naïve and some invest huge amount while some contribute a small portion. Crowdfunding platform needs to classify the investors or contributors on the basis of the amount of investment they want to contribute. There will be three types of funders: (a) Star (b) armor (c) mouse. Star will be the contributor who is ready to invest a huge amount in different good projects. This funder is best suited for giant projects for high returns but can play safely in the other two types of projects. As funder is most experienced contributor among all types, giant projects will their first priority. Armor is the one who is in mid-level when it comes to the amount of investment, the expectation of returns, experience, and knowledge of projects. Affordable projects will be the target of this segment to earn a reasonable return. The mouse is the new player in the game and crowdfunding platforms will entertain every contributor at this level. Contributors will get the first experience of crowdfunding and then crowdfunding platform will allow them to invest higher amounts eventually.

Crowdfunding platform will also rate funders based on their past record of investment in successful campaigns. A study of Zvilichovsky, Inbar, and Barzilay (2013) also shows that a positive correlation exists between being a backer of other projects and the crowdfunding campaign’s success. Every funder will enter in the platform as a low rated mouse and then can reach to the highest rated mouse. Upon the agreement between contributors and crowdfunding platform, it will move to armor but start from the lowest rank they're and eventually will reach highest-rated star. Ratings of funders will help crowdfunding platform and projects. More high-rated funders will increase the reputation of crowdfunding platform and attracting these funders is the first sign of success for a project in any category. In order to maintain good ratings, a funder will also be cautious to contribute to quality projects and hence will enhance the value of crowdfunding platform.

4. Conclusion

Crowdfunding platforms are on the rise which results in competition and providing better services. These platforms provide a matching service between funders and fundraisers while taking its commission for a successful campaign. A crowdfunding platform has a large number of campaigns, and good matching technology not only helps funders to find campaigns that better meet their needs but also promotes campaigns to support them reach their targeted funds. Crowdfunding platforms need to adopt a framework which will help to match the needs of both parties while being profitable. There is need to securitize the projects and allow only quality projects which can be successful in the future. It will help to build the reputation of the platform and trust of funders. As more projects will be successful, crowdfunding platform can earn more commission in new projects. This paper provides some understandings into how to maximize the crowdfunding platform profits. When crowdfunding platforms take methods to describe the quality benchmark of crowdfunding projects, the ideal quality projects are funded and increase reputation of crowdfunding. However, high quality projects are linked with the success rate of crowdfunding projects, but it may not necessarily increase profits as many efforts are required to exercise this practice. Although it is hard to hold the project quality of fundraisers, there are proposed methods to assess it. Contributors past records, prior experience, and the characteristics of the start-up team are helpful for contributors to differentiate unsuccessful projects from successful projects. The paper explained a model, shown in figure 2. which will help crowdfunding platforms to match the expectation of funders with the relevant project and hence all parties will be in win-win situation.

5. Practical implications

The research will help Crowdfunding platforms to design their model to reduce the number of potential failing campaigns thus increasing their profitability and reputation. Crowdfunding platforms always want to start a campaign which can successfully reach its investment or contribution target. More successful campaigns will add on reputation of platform and thus increase the share of customers and profit. The proposed model will help crowdfunding platforms to match the best project to every crowd according its volume of contribution and experience of dealing with such projects.

6. Limitations

This paper is theoretical in nature and cannot propose the technical side of this framework. Further research can be done to check the technical compatibility of this model. Also, this model doesn't guarantee the cent percent success of crowdfunding platform.

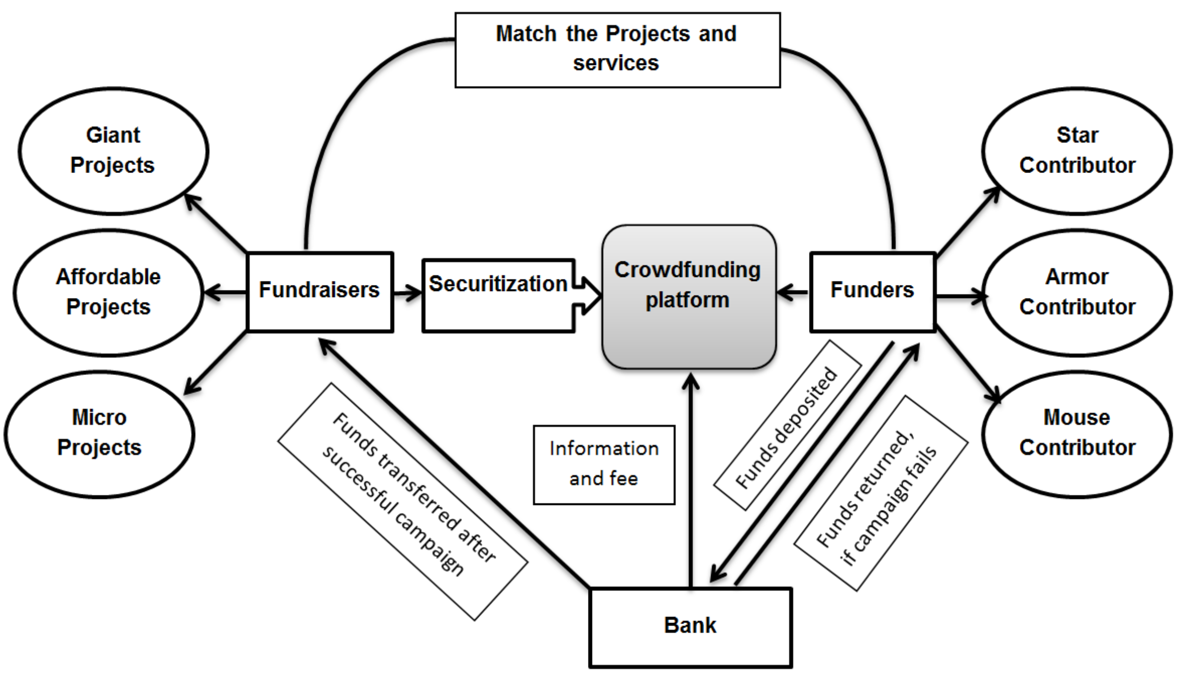

Figure 2: Conceptual Framework of crowdfunding platform

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