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Understanding Reward-based Crowdfunding as an Alternative Source of Entrepreneurial Financing: Towards a Conceptual Framework Using a Signalling Theory Perspective

Abstract

Crowdfunding has gained a great deal of attention from policy makers, researchers and practitioners. Studies have suggested that reward-based crowdfunding (RBC) plays an increasingly important role in the process of business start-up. However, apart from some exploratory studies, there is a lack of understanding on the influence of the signals especially the signals of intention that drive the crowd to invest in RBC projects from a perspective of signalling theory.

In this conceptual paper the authors build on related literature to theoretically develop a research model and plan to validate this model with an empirical analysis on an RBC platform with a longitudinal study to identify the key factors that influence the success (or failure) of RBC in the UK. In-depth comparative analysis could be conducted to investigate the interplay of institutional context (economic, social, political and cultural) and RBC.

The research will take up on a deeper understanding of the influences from different signals for backing an RBC project and therefore theoretically contributes to the understanding of the body of knowledge in signalling theory in RBC.

Keywords: crowdfunding, reward-based crowdfunding, entrepreneurial finance, alternative finance

Word Count: 2000

1 Introduction

Crowdfunding is gaining much attention in theory and practice. Among different types of crowdfunding, reward-based crowdfunding (RBC) as the most common type (Guan, 2016) and one of the oldest models (Zhang et al., 2016), has brought increasingly attention for its remarkable market advantages. Generally, RBC is defined as based on ‘an exchange of a monetary contribution’ for some non-monetary reward, donors or backers would expect that “fund recipients” provide ‘a tangible but non-financial reward or product’ at a later date in exchange for their contributions (Hossain & Oparaocha, 2017, p.54). In an RBC project, various levels of rewards/pledges would be introduced based on different pledge amounts from backers (Burtch et al., 2013; Lin et al., 2016; Thurridl & Kamleitner, 2016; Zhang et al., 2016). the author builds on related literature to theoretically develop a research model and plan to validate this model with an empirical analysis on an RBC platform with a longitudinal study to identify the key factors that influence the success (or failure) of RBC in the UK. This developmental paper is aimed at understanding the dynamic process of RBC projects through assessing the likelihood of a backing behaviour from a signalling theory perspective.

2 Reward-based Crowdfunding

Unlike other equity or debt based crowdfunding models, all RBC campaigners retain their control in the business and intellectual property rights; patents, trademarks, and copyrights (Freedman & Nutting, 2015). In this case, RBC could be a way for start-up companies to get access to investment but without paying ‘the hidden costs of other people’s money’ (Bhide 1992, p.16).

A review of literature indicates that little is known about the field of RBC from an theoretical perspective (Brown et al., 2015; Mollick, 2014). To date, the majority of studies in this domain focus on exploring project and entrepreneur characteristics associated with successful funding outcomes (Hou et al., 2015; Li & Martin, 2016; Thurridl & Kamleitner, 2016). For example, research shows that crowdfunding success is positively related to project quality signals (Mollick, 2014; Hou et al., 2015), the influence of online information (Bi et al., 2017), emotional relationship or friendship identification with the project initiators (Bretschneider et al., 2014), entrepreneur reputation (Li & Martin, 2016) and even the level of rewards (Lin et al., 2016). These studies tend to be exploratory in nature, and throughout the literature there is a lack of conceptual and theoretical development specifically in the area of RBC. In particular, there is a lack of comprehensive framework that can help to understand RBC as a complex process that involves the interplay between the signallers and receivers under specific context.

3 Theoretical background

3.1 Signalling Theory

According to prior literature, researcher identified that funding success are significantly associated with project quality signals such as preparedness, narrative, and others’ backing decisions, as well as signals of fundraisers’ individual quality such as personal characteristics, trustworthiness, and social network (Burtch et al., 2013b; Colombo et al., 2015; Mollick, 2014; 2012). The underlying assumption is rational receivers make decisions based on signals they observed, so that the identifiable signals of project quality can predict project process (Bi et al. 2017). High-quality projects attract funders and receive funding, and the funders may promote

the project to external media and other potential investors, while low-quality projects receive little or no fund (Mollick, 2014; 2012). However, these empirical findings are based on the receivers are perfectly rational and making decisions based on careful and thoughtful consideration of the full information. Signal observability is neglected in this approach.

On an RBC platform, such as Kickstarter, a fundraiser or “creator” creates a webpage for the project on the platform to introduce the project. On the webpage, the introduction aims to explain the purpose of the project, rewards and sometimes the specific use of the contributed funds (Kuppuswamy & Bayus 2015). Receivers will observe and interpret signals to decide whether to back the project and which pledge to choose, they may even share the project to external media or other potential investors.

Therefore, generally in this model, fundraisers and the platforms as the signaller, signals including signals of project quality such as introduction word counts and video and signals of intention such as charitable purposes, receivers observe and interpret signals, then some of receivers will become backers to back the projects, the feedback such as comments and backing behaviour is sent to signaller. Here, backers also become one of the signallers, sending signals such as the backing behaviour, comments and potential sharing information in social network to other receivers. However, the model won't be consummated without considering signal observability (e.g. social network theory) and the signal interpretation mechanism (e.g. motivations).

3.2 Social Network Theory

Some studies on RBC recognised the important role of social ties (Frydrych et al., 2014; Kang et al., 2017; Mollick, 2014; Roma et al., 2017). Kromidha and Robson (2016) examines success factors of the top 5000 most funded projects on Kickstarter and discovered that in the projects which funder and backers “who identify themselves with the projects in their own social networks” or “exchange more signals in a joint forum” are associated with greater pledge/back ratio” (Kromidha & Robson, 2016, p605). This was confirmed by Wu et al.(2015) with a study of 192 projects from a Chinese crowdfunding platform that the frequency of announcements by fundraisers as a positive signal, but with differences between the high-tech and movie/music industries.

However, the very collaborative and unique nature of signals and communications as well as social network between members in RBC has not been fully captured by these studies, there is lack of theoretical explanation in terms of signalling theory.

3.3 Motivation Theory

As discussed above, the receivers will observe and interpret signals to make decisions. The underlying assumption here is that signals are observed and attended by almost every receivers and they correspond to the given signals, which suggesting high rationality (Drover et al., 2018; Kim & Jensen, 2014; Park & Patel, 2015). This met the assumption in traditional economic theory, that is investors are viewed as rational decision makers (Fama 1970), who apply Bayesian decision making criteria (Brown et al. 1988), where new information is weighted equally with information that is already known (as cited in Swallow & Fox, 1996).

However, some studies shows that it may not be true. Through Swallow and Fox's (1996) research in investor psychology, their findings indicate that investors overreact to negative

information more zealously than they overreact to positive information. For instance, Admati and Pfleiderer (1994)'s research even shows that inside investors may realize the advantages of inside financing and mitigate the disadvantage. Therefore, it is worthwhile to investigate the decision-making process and criteria in RBC.

3.3.1 Reward and reward motivation, social comparison motivation

In RBC, backers receive non-monetary reward in exchange for their pledge, ranging from a simply thank-you email to pre-orders, early access to products, and discounts of projects (Ahlers et al. 2015; Bretschneider & Leimeister 2017). It's to be expected that one of the motivation for the backing behaviour is the reward. Hockenbury and Hockenbury (2003) suggested that behaviour is motivated by external goals, such as reward or money. The extrinsic reward motivation also draws on the incentive theory, which is one of the major theories of motivation, asserting that behaviour is motivated by a desire for reinforcement or incentives (Berglin & Strandberg 2013).

In the perspective of signalling theory, the signals related to reward such as levels of pledge and estimated delivery date due to the anticipation of rewards or reward motivation therefore could have impact on projects' outcomes and will be tested.

3.3.2 Comments, pledging and recognition motivation, lobbying motivation

According to Maslow (1987), recognition is derived from individuals' inner desire for fame and esteem. As a humanistic psychologist, he observed that people have the needs of recognition. Recognition can be implicit or explicit. For example, a researcher feels implicit recognition when his work is cited in the paper of another researchers. Also, explicit recognition takes place when one person praises another for an achievement.

In RBC, when backers regard a project as personally relevant and consistent with their values and goals, they will develop a personal need (Ordanini et al., 2011; Schwienbacher & Larralde, 2010). Through participation in the project such as leaving comments and interact with creators, backers feel that they can lobby and influence the features of the product/service that high valuable to them and reflect a personal need (Vasileiadou et al. 2015; Kuti et al. 2018; Dóci & Vasileiadou 2015; Bretschneider & Leimeister 2017).

Moreover, interacting with creators and other backers across projects in return are believed that backers can get some recognition by the social community (Cholakova & Clarysse 2015; Bretschneider & Leimeister 2017). Additionally, in some projects backers are offered involving a meeting with the project initiator, when pledging a large sum, in that way implicit recognition would take place (Steigenberger 2017). This is also confirmed in Bretschneider and Leimeister's (2017, p11) research that backers expect to "receive recognition from other in return for their investment".

In the perspective of signalling theory, the comments and the action of backing can be regarded as the feedback to creators, and in turn it can be seen as signals of project quality to other backers.

3.3.3 Charitable purposes of the project and prosocial motivation

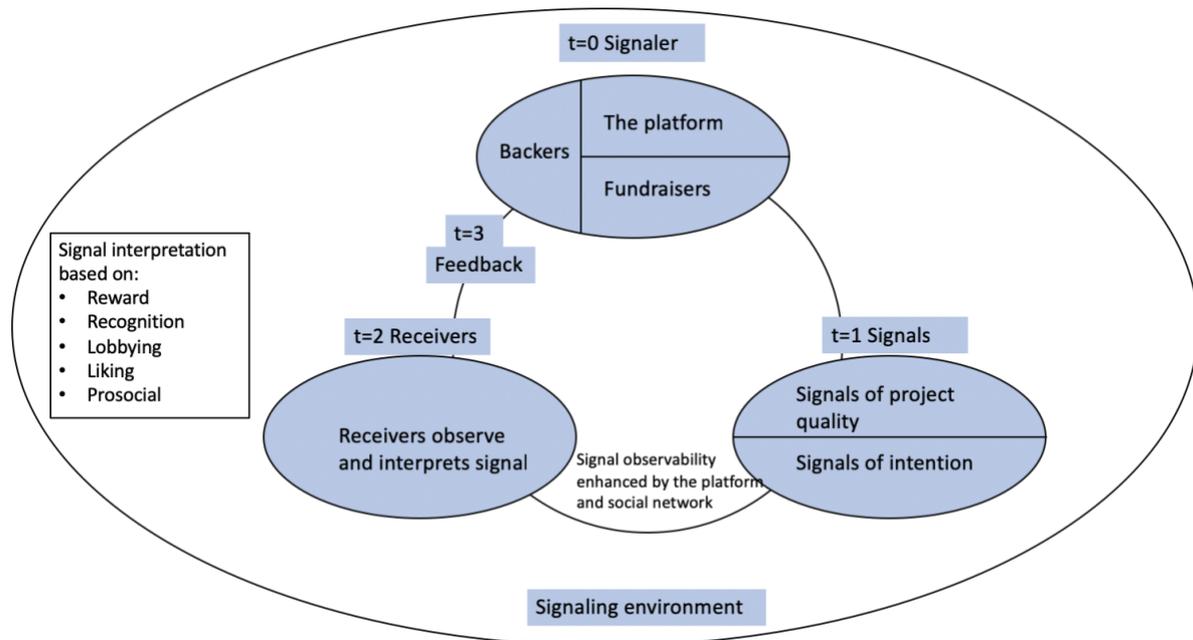
Although most studies about backers' motivation focused on their egoistically motives (Ordanini et al. 2011; Kuti et al. 2018; Dóci & Vasileiadou 2015), a few studies recognised and proved the importance of prosocial motivation by interviews and surveys – one of the motivation for funders of Kickstarter projects is to help others bring their dreams to life (Steinberg 2012; Gerber & Hui 2013).

Kuppuswamy and Bayus (2017) discussed the influence of prosocial motivation on the likelihood of a backing behaviour based on the goal gradient effect, that is, when projects approach their goal, they receive more backer support, but backers' support drop significantly after the target goal is reached. However, this research based on random selected Kickstarter projects only considered the prosocial motivation out of helping creators to achieve their goal, but neglected the influence from contents of projects introduction to backers' prosocial motivation, especially projects' charitable purposes and how they influence the likelihood of a backing behaviour.

Therefore, the influence of charitable purposes of the projects towards prosocial motivation as a signal of intention on the feedback of receivers, that is, the likelihood of a backing behaviour is unsure and worth to investigate.

To conclude, the dynamic process of RBC projects can be understood as in the following.

Figure 1



Note: $t = \text{time}$

In this model, fundraisers and the platforms are the signallers. The fundraisers decide signals of project they share on the platform, that are signals including signals of project quality (e.g. introduction word counts and video counts) as well as signals of intention (e.g.) charitable purposes. Through both fundraisers' and first backers' social network and the platforms, receivers observe and interprets signals through signal interpretation mechanisms based on different motivations. After that, some of receivers will become backers to back the projects, the feedback such as comments and backing behaviour is sent to signaller. Here, backers also

become one of the signallers, sending signals such as the backing behaviour, comments and potential sharing information in social network to other receivers.

Conclusion: Expected Contributions to Theory and Practice

Based on results, the author expects to make contribution to both theory and practice.

The findings of this study will have major implications for different parties, especially for nascent entrepreneurs, financiers, researchers and policy makers. One major implication is it could provide an insight for practitioners considering the approach of crowdfunding, the knowledge and recommendations in running a successful RBC campaign. Another implication is by gaining a deeper understanding of various actors involved with RBC, it may help financiers reconstruct their investment strategy through better understanding of the newer industry changes. Moreover, the results of this study can help policy makers to better understand the RBC industry, which is essential in developing relevant policies in this under-governed area. Finally, this research contributes to growing knowledge and interest in the entrepreneurial finance, especially in crowdfunding industry. Clearly, there are a lot more to explore.

Comments:

Prior to the conference, the authors will plan to run the data analysis and to get preliminary findings.

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