MOTIVATIONS FOR CROWDFUNDING: WHAT DRIVES THE CROWD TO INVEST IN START-UPS?

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Research in Progress
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Abstract

Equity-based crowdfunding is an increasingly popular source to fund start-ups. In equity-based crowdfunding, a form of crowdsourcing, many crowdfundees collectively fund a start-up by providing parts of the requested funding in prospect of financial returns. While extant research has provided insights into the crowd’s motives for participating in various forms of crowdsourcing initiatives, we know little about the motivations that drive the crowd to invest in start-ups via crowdfunding. In literature, there are ongoing calls to investigate this phenomenon since it is expected that motives for investing in start-ups via crowdfunding differ from motives for engaging in other forms of crowdsourcing initiatives. Against this background, this research aims at investigating why crowdfundees fund start-ups. In this research-in-progress paper we build on related literature to theoretically develop a research model and plan to validate this model with an empirical survey on an equity-based crowdfunding platform specialised on start-up funding. By giving concrete answers to this research questions, our research will take up on a deeper understanding of the crowd’s motivation for investing in start-ups and therefore theoretically contributes to the understanding of the body of knowledge in motivations in crowdsourcing.

Keywords: crowdfunding, motivation, start-ups, entrepreneurship
1 Introduction

The crowdsourcing market is a highly dynamic field since Howe (2006) coined the term crowdsourcing in his Wired article. One form of crowdsourcing is crowdfunding, which is recently gaining increasing popularity. The very basic principle of crowdfunding is described in the saying “many a little makes a mickle”. In crowdfunding, many crowdfundees collectively fund a venture by providing parts of the requested funding, i.e. the task of funding is outsourced to the crowd. However, the term crowdfunding itself is fuzzy. One can differentiate between four basic forms of crowdfunding depending on the value a crowdfundee receives for his funding. In line with (Griffin 2012), these forms are: (1) Donation-based crowdfunding, i.e. without any reward besides benevolence. (2) Reward-based crowdfunding, i.e. with non-financial rewards like products, services, promotion or others.1 (3) Lending-based crowdfunding, i.e. with financial returns like interest. (4) Equity-based crowdfunding, i.e. with financial returns such as equity, equity-like shares or dividends.

Ventures of any kind were already funded using the crowdfunding principle. In this research, we focus on equity or equity-like crowdfunding for start-ups. In practice, the worldwide equity-based crowdfunding market for start-ups grew 30% to 115.7 mio US$ in 2012 (Massolution 2013). Market growth is expected to dramatically improve even more when regulations leave pending status. Especially the implementation of the Crowdfunding Act in the US as part of the Jobs Act is of special interest as regulations did not allow equity-based crowdfunding so far ((Kappel 2009; Burkett 2011; Cohn 2012; Griffin 2012), besides others).

In view of this new phenomenon, research lacks deeper knowledge about equity-based crowdfunding for start-ups. In particular, knowledge on what motivates the crowd to invest in start-ups is very limited. The motives to participate in other forms of crowdsourcing initiatives are well investigated. However, there are calls to investigate crowd’s motivation for crowdfunding ((Lehner 2012; Moritz and Block 2013)) since it is expected that especially motives for investing in start-ups differ from motives for engaging in other forms of crowdsourcing initiatives. First research results indicate a few possible motivations but still left out the whole picture. For example, Ahlers et al. (2012) examine start-ups signals that may have an influence on investor’s decisions – external certifications do not have an influence whilst financial roadmaps, risk factors and internal governance are important. Burtch et al. (2013) identified crowd’s herding behaviour as a possible influencing factor for participation in crowdfunding. Schwienbacher and Larralde (2012) suggest crowdfunding for small entrepreneurial ventures for reasonably low amounts of money, innovative projects, and web 2.0 skills in order to attract the crowd.

Against this backdrop, this research aims at empirically investigating the motivation of the crowd to engage in equity-based crowdfunding initiatives for start-ups. By giving concrete answers to this research questions, our research takes up on a deeper understanding of the crowd’s motivation for investing in start-ups and therefore theoretically contributes to the body of knowledge. Furthermore, our results make practical contributions: Knowing these motives is a valuable insight for managers of crowdfunding platforms. In future, managers may draw on our insights to systematically design and implement potential design elements into their crowdfunding platforms in order to attract the crowd to invest in start-ups.

In this research-in-progress paper we present a research model to empirically investigate the crowd’s motivation. We developed this model from theory. Within the following chapters, we will first

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1 Reward-based crowdfunding is also sometimes further differentiated into a “reward” and “pre-purchase” model. However, we find this a rather academic discussion as pre-purchasing products or services are ultimately rewards, too.
2 Theory and Hypotheses

2.1 Theoretical Background

The support of crowdfundees’ is essential for a crowdfunding venture. Therefore, it is critical to understand why crowdfundees make an investment in a start-up. This involves at the same time the question of the motives of human behaviour.

Motivation psychology differentiates between the notion “motive” and “motivation”. A motive is seen as an individually developed and content-specific, psychological disposition (Jost 2000). This disposition describes how important certain goals for an individual are. Some motives are inborn while a relatively stable set of motives is developed during an individual’s socialization process (Rheinberg 2006; von Rosenstiel 2007). Motivation describes the process of how an individual’s motives become activated. This basic principle of motivation as in motivation psychology is illustrated in Figure 1.

An active motive will subsequently cause certain behaviour in a particular situational context. Certain things an individual perceives will serve as incentives that stimulate corresponding motives in such situational contexts. The interaction between motives such as personal factors and incentives such as situational factors results in a current motivation. This motivation in turn causes behaviour.

Several motivation concepts are based on this basic model. The self-determination-theory (SDT) according to (Deci and Ryan 2000) outlines as one of the most popular motivation concept the distinction between intrinsic motivation, i.e. from inside or internal factors, and extrinsic motivation, i.e. from outside or external factors. Extrinsic motivation is activated by external incentives such as direct or indirect monetary compensation, or recognition by others. The aim of extrinsically motivated behaviour is to support certain positive and avoid negative consequences. Intrinsic motivation occurs when an individual engages in a behaviour that is initiated without obvious external incentives or separable consequences (Deci and Ryan 1993). Intrinsic motivation can be motivated by curiosity, fun and joy as well as interest in the thing itself (Deci and Ryan 2000). Both intrinsic and extrinsic motivational factors may play a role in an investor’s decision to fund a start-up.
Alternative components should be considered as well for the choice of a particular action according to certain additional motivation concepts. Thus, the incentive of the result, the expectation that there will be a certain result, and the evaluation of the consequences of an action, i.e. the result, are relevant for the motivational process (Nerdinger 2006). Incentives can be justified by an action activity itself, by an action outcome or action consequences results and encourage a person to strive certain expected aims (Heckhausen and Heckhausen 2010). According to (Rheinberg 2006) the action tendency of a person is stronger, the more likely the action result has an impact with high incentive value terms (R-C-Expectation), the more likely this result depends from their own actions (A-R-Expectation) and not already by its owns yields (S-R-Expectation).

Our research is based on this motivational model as illustrated in figure 1. Adapted to the case of equity-based crowdfunding, we assume that certain components of the ventures, the crowdfunding intermediaries and other investors’ signals are perceived by a crowdfundee. Therefore, these components constitute incentives that again activate a crowdfundee’s individual corresponding motive to finally drive the decision to invest in a start-up.

2.2 Hypotheses Development

We consider crowdsourcing as the umbrella research field for (equity-based) crowdfunding. Therefore, we compare crowdfundees in certain aspects with crowdsourcers and informal venture capitals to check if motives examined in these research fields could be applied to our case. In total, we examined six empirical crowdsourcing studies (Füller 2006; Walcher 2007; Brabham 2008; Brabham 2010; Bretschneider 2012; Janzik 2012), four crowdfunding studies (Harms 2007; Hemer 2011; Ordanini, Miceli et al. 2011; Gerber, Hui et al. 2012) and three empirical business angel research studies (Sullivan and Miller 1996; Brettel, Jaugey et al. 2000; Stedler and Peters 2002). Various motives are examined that make crowdsourcers participate in online communities, crowdfunder fund a project or venture, and business angels invest in young companies. We then analyzed which of these motives are reasonable for our research. We applied ten motives which are described as follows.

The first motive is fun. Fun and the joy of programming has proven to be one of the main motives of programmers in open source projects (Hars and Ou 2002; Lakhani and Wolf 2005). The fun to develop ideas and publish them was also found in crowdsourcing (Bretschneider 2012; Janzik 2012). The motive fun was named as well as the main reason for the activities of business angels (Brettel, Jaugey et al. 2000). Therefore, we assume that crowdfundees have fun when investing through equity-based crowdfunding.

H1: “Fun to make investments” has a significant positive influence on the investment in a start-up in the context of equity-based crowdfunding.

Fun and enjoyment of an activity as well as interest and curiosity are mentioned in the self-determination-theory as possible causes of intrinsic motivation (Deci and Ryan 1993). A distinction can be made between specific and diverse curiosity motivated behaviour (Edelmann 2000). The former refers to the exploration of a single stimulus while the latter represents a tendency to seek stimulation from a variety of sources. Crowdfundees may invest in a start-up because they are curious about crowdfunding as new investment alternative or because they want to escape boredom. The general effect of curiosity motivation on the willingness to act has already been demonstrated as essential in the study of (Füller 2006). (Ordanini, Miceli et al. 2011) have developed a hypotheses as well that a fundamental interest in how crowdfunding works represents a reason for participation in crowdfunding. We therefore hypothesize that:

H2: “Curiosity about crowdfunding” has a significant positive influence on the investment in a start-up in the context of equity-based crowdfunding.
Altruism is another motive that has been studied in the contexts of open source communities and business angel research. Altruism can be defined “as doing something for another at some cost to oneself” and can be interpreted as the direct opposite to selfishness (Ozinga 1999). The idea of altruism is comparable to donation-based crowdfunding, where crowdfundees want to help with their funds but do not expect returns on their funds. Thus, in the first instance, crowdfundees motivated by altruism seek to increase the welfare without expecting any rewards. Therefore, we assume that altruism can also be a driver that motivates the crowd to invest. We hypothesize that:

**H3: “Altruism” has a significant positive influence on the investment in a start-up in the context of equity-based crowdfunding.**

The fourth motive out of the class of intrinsic motivation is reciprocity. Reciprocity describes that people tend to be or feel obliged to create a balance and reciprocate because they have received something themselves (Cialdini 2010). Reciprocity can be explained by project initiators who successfully funded their projects through crowdfunding support and thus will more likely provide capital for other projects in returns (Hemer, Schneider et al. 2011). Considering that crowdfundees can at the same time also be entrepreneurs, it is quite conceivable that they feel obliged to help other entrepreneurs or start-ups. We hypothesize that:

**H4: “Reciprocity” has a significant positive influence on the investment in a start-up in the context of equity-based crowdfunding.**

(Agrawal, Catalini et al. 2011) found that family and friends are an important group for funding reward-based crowdfunding projects. Crowdfundees tend to support projects to which they have an emotional relationship and familiar or friendship identification with the project initiators. This type of relationship between investors and entrepreneurs will be referred to as "direct identification". We hypothesize that:

**H5: “Direct identification” with the team has a significant positive influence on the investment in a start-up in the context of equity-based crowdfunding.**

The first impression and a certain personal chemistry to the entrepreneurs is the first step to a potential investment of business angels (Feehey, Haines et al. 1999; Brettel 2003; Mason and Stark 2004). Therefore, crowdfundees may invest in a start-up because a certain emotional relation exists based on sympathy or emotional affection for the start-up team. We call this indirect identification. We hypothesize that:

**H6: “Indirect identification” with the team has a significant positive influence on the investment in a start-up in the context of equity-based crowdfunding.**

Regional identification is another intrinsic motive based on the proximity between the start-up and a crowdfundee. We assume that crowdfundees also establish a connection to start-ups when they are in a regional range. As a result, crowdfundees invest in that start-up. However, crowdfunding research so far found different results for regional identification. (Agrawal, Catalini et al. 2011) and (Mollick 2013) found that the geographical distance as well as the location of a venture have none or little relevance for an investment. In contrast, (Lin and Viswanathan 2013) have found a home bias in the award of a loan. Current results indicate that geographic effects in different ways can play an important role in the success of crowdfunding projects (Mollick 2013). We therefore hypothesize:

**H7: “Regional identification” with the venture has a significant positive influence on the investment in a start-up in the context of equity-based crowdfunding.**

One motive of external motives is recognition. Recognition is found to be a basic human need as it gives people a sense of self-esteem (Nerdinger 2006). Crowdfundees may invest in a start-up to increase visibility and receive recognition for their investment from other people, the community as well as the society. This is important when the start-up is very successful afterwards. We hypothesize:
H8: “Recognition” has a significant positive influence on the investment in a start-up in the context of equity-based crowdfunding.

Open source software and crowdsourcing research identified need as a further motive (Hars and Ou 2002; Füller 2006). Accordingly, software developers participate in open source projects or crowdsourcing on the development of ideas because they can use and profit from the developed software solution or the idea itself. In the context of equity-based crowdfunding, a crowdfundee might support the start-up so that the product or service of this start-up will be adapted or developed according to the crowdfundees’ needs. This is an attractive opportunity as the start-up typically presents their main product or services to the crowd. In contrast to open source and crowdsourcing, crowdfunding is not about the adaptation or new development of a solution but the financial support of a problem solution or a business idea. However, the basic goal remains the same – a crowdfundee desires the product or service under development. Therefore, we assume that crowdfundees may also invest because they desire the product or service that is under development by the start-ups. We hypothesize that:

H9: “Personal need” has a significant positive influence on the investment in a start-up in the context of equity-based crowdfunding.

A plausible explanation of why crowdfundees invest in a start-up is the obvious goal to obtain a profit and/or capital gains on the invested capital. So another motive out of the class of extrinsic motivation is return. We hypothesize that:

H10: “Return” has a significant positive influence on the investment in a start-up in the context of equity-based crowdfunding.

Behavior is not only determined by motives but also by providing incentives and expectations of a person. Therefore, we derived three certain situational factors. The assumption is that certain situational factors influence the formation of expectations and accordingly they can affect certain investment motives and finally the investment behavior.

Yet, little is known about the selection process of crowdfundees. It remains unclear whereupon investors select start-up investments. Drawing on insights of business angel research, the team and the idea are identified as investment criteria and situational factors. Also, (Ahlers, Cumming et al. 2012; Mollick 2013) found that the idea and the team are crucial positive signals for the investment decision and a successful funding of start-ups in crowdfunding. Thus, we assume that "income-related team characteristics", e.g. skills and qualifications of the entrepreneurs, as well as "income-related idea characteristics", e.g. market potential and competitiveness of the idea, have an influential effect on the investment motive "return". We hypothesize:

H11: “Team characteristics” mediate the effect of the motive “return” on the investment in a start-up in the context of equity-based crowdfunding.

H12: “Idea characteristics” mediate the effect of the motive “return” on the investment in a start-up in the context of equity-based crowdfunding.

The rational herding behavior has been suggested as another contextual factor. (Banerjee 1992) describes herding behavior as "everyone doing what everyone else is doing". Applied to our research we assume that investors are aware of and observe the decisions of other investors who have already invested in a specific start-up and are thus influenced by the behavior of others (Herzenstein, Dholakia et al. 2011; Burtch, Ghose et al. 2013).

First, we assume that previous decisions are indicators for quality or profitability of the start-up. Thus, herding increase the expectation to generate a return by investing in that start-up in which others already invested before. We therefore hypothesize:
H13: Herding behaviour strengthens the association between the motive “return” and the investment in a start-up in the context of equity-based crowdfunding.

Furthermore, it is assumed that other investors which already used equity-based crowdfunding can reinforce the curiosity of an investor about crowdfunding as a new investment alternative. We hypothesize:

H14: Herding behaviour strengthens the association between the motive “curiosity about crowdfunding” and the investment in a start-up in the context of equity-based crowdfunding.

Summarized, we assume that crowdfundees in equity-based crowdfunding can be motivated to make an investment by seven intrinsic and three extrinsic motives. The relationship between certain motives can be influenced by three situational factors. All hypotheses are illustrated in figure 2.

![Research model](image)

**Figure 2. Research model**

### 3 Data Collection and Analysis

In a next step, we will partner for our research with the equity-based crowdfunding platform Innovestment (www.innovestment.de). Innovestment is a crowdfunding platform based in Germany that funded 25 start-ups so far with more than 2 Mio € in total. Innovestment’s start-up focus is on high-tech companies. Despite other platforms, Innovestment does not use the first-come, first-serve mechanism. Instead, equity-like shares can be bought through a dutch-auction mechanism. Every investor sets his/her offer, i.e. how many shares for a chosen price should be bought. Innovestment then informs all users during the funding period about their current status so that each investor can update their offerings. Finally, the highest bids win. The minimum investment amount is typically 1.000 €.
Our research seeks to explore the motives that encourage the crowd to invest in start-ups via equity-based crowdfunding. Since perceived motivation-related issues can best be expressed by investors participating in the community themselves, we will conduct a standardized questionnaire survey. For our survey, each of the motives will be included that we theoretically derived in section 2.

So far, there were 45 items formulated in order to measure the 10 motives, 2 moderators, 2 mediators and the investment action. Based on the rationale presented above, both the endogens and the exogenous latent variables were operationalized reflectively. Investors will be asked to rate the degree to which extent each motive motivated him or her to invest in a start-up using a rating scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was already structured, tested and consequently adapted to the needs of the target audience. The questionnaire was also pre-tested by 10 experts pursuing doctoral and master’s degrees in information technology and business administration. The objectives of the pre-test were to ensure that none of the items was ambiguous and to confirm that the items adequately captured the domain of interest. Expert opinions indicated that the content of the items was valid. We plan to run the online survey in early 2014 jointly with Innovestment. The questionnaire will be implemented using an online-survey service.

In a next step, we will apply the variance-based Partial Least-Square (PLS) approach to analyze the gathered data. To estimate structural equation models, one can revert to covariance-based methods (Jöreskog 1977; Bollen 1989) or the variance-based PLS approach (Lohmüller 1989; Henseler and Ringle 2009). We will apply the PLS approach to model estimation because its formal premises embody a greater range of flexible applications for reflective constructs ((Lohmüller 1989), besides others). As the objective of our analysis is to determine the impact of motives that can be best measured by reflective measurement models, the PLS approach thus emerged as being suitable in this regard. The statistical software application SmartPLS 2.0 (Ringle and Wende 2005) will be used to compute the PLS path model.

4 Conclusion: Expected Contributions to Theory and Practice

Based on our results, we expect to make contributions to both theory and practice. As it concerns theoretical contributions, motives for participating in different kind of crowdsourcing have already been researched. For example, Muhdi and Boutellier (Muhdi and Boutellier 2011) found empirical support for motives that lead to participation in firm initiated online innovation communities that are a form of crowdsourcing. But so far, it was unclear which motives lead to investments from the crowd in crowdfunding ventures. We expect to find empirical evidence for the above discussed motives. Thus, our results will contribute to theory by offering new specific insights concerning motivation for participation in crowdsourcing initiatives and thereby extending the body of knowledge in this field.

As it concerns practical contribution, we expect to find evidence for motives that sufficiently explain why the crowd invests in start-ups on crowdfunding platforms. Knowing these motives is a valuable insight for managers of such crowdfunding platforms. In view of the above explained motivation model, operators may draw on these insights to systematically design and implement further design features into their crowdfunding platforms in order to attract the crowd to invest in start-ups.

For example, crowdfunding platforms could implement a profile site - as for example known from social network communities like LinkedIn - for investors that display his/her personal collection of already carried out investments. Such a collection would intensify for example the altruism- or recognition-effect as the collection as a whole can better represent the investor’s willingness to support young entrepreneurs. In this way, investors may be more readily identified as altruistic persons. This is only one example for future design elements. Certainly, there are a lot more to explore.
References


