

Backer Empowerment in Reward-Based Crowdfunding: How Participation beyond Funding Influences Support Behavior

Workshop on the Digitization of the Individual Research in Progress

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Abstract: With the number of crowdfunding platforms steadily increasing, it becomes more difficult to attract customers to a particular crowdfunding campaign. This study introduces customer empowerment as a new theoretical concept to study funder participation in crowdfunding. To this end, the paper at hand examines if by systematically empowering funders to participate in crowdfunding product decisions their intention to support a campaign financially and virally increases. Moreover, the paper examines psychological empowerment feelings as a mediating variable that explains intentional support behavior in crowdfunding. The method used is a randomized experiment.

Keywords: Crowdfunding, Backer Empowerment, Experiment

Introduction

Crowdfunding has gained considerable popularity in recent years. According to industry data, the crowdfunding volume rose from 16.2bn dollars in 2014 to 34.4bn dollars in 2015 (Massolution 2015). In line with this development, the number of crowdfunding platforms also increased. In 2015, the number of platforms was reported to be 1,250 (Massolution 2015). Despite this positive outlook, collecting money over a crowdfunding platform still presents a daunting challenge for entrepreneurs. Thus, only a small fraction of projects achieves to attract sufficient funds (usually around 30% of projects on a crowdfunding platform). Against this background, it is important for requestors and intermediaries to find new ways to attract and motivate the crowd.

A possible way of doing this is to empower the crowd by letting them participate in a project's decisions that go beyond the mere provision of funds. Prominent examples of user participation include the coolest cooler, a campaign for a state -of -the -art cooling box, which asked its funders to actively decide on the color of the cooling box. Another example is the website myfootballclub.co.uk, where members in exchange for a fee become co-owners of a football club and can actively participate in decisions concerning the football club. Although these examples show how people can actively take part in decisions that go beyond funding, research so far has not dealt with active participation of funders in more detail.

One form of crowdfunding that might be especially susceptible to examine the effects of funder empowerment is reward-based crowdfunding. This is also supported by research showing that people participate in reward-based crowdfunding campaigns for other reasons than mere financial return. Gerber et al. (2012) found that funders participate because they want to be part of a community and because they want to support others (Gerber et al. 2012). Research on motivations in crowdfunding thereby indicates that certain users turn to reward-based crowdfunding because they want to actively contribute to an idea and because they want to make things happen. In line with this Schwienbacher and Larralde (2010) note that certain types of crowdfunding are characterized by active investments (although not explicitly stated, it can be assumed that they refer to reward-based crowdfunding). Active investments are thereby considered as investments that allow funders to become active in the initiative and may elicit the aforementioned motivations among the crowd.

Although recent literature and practice seem to indicate that active participation may play an important role in crowdfunding (Schwienbacher and Larralde 2010), this phenomenon has so far not been examined in more detail by scholars. This is surprising, since research in the field of open source software development and open innovation suggests that letting customers actively participate in the process of creating a product evokes positive emotions, increases the willingness to pay, and contributes to a more positive image of the company among customers (Fuchs and Schreier 2011; Fuchs et al. 2010; Franke et al. 2010). In addition to that, research from the field of marketing indicates that empowering customers through active participation also offers psychological benefits to users (Fuchs and Schreier 2011).

Against this background, we adopt empowerment as a new theoretical lens to examine backer participation in crowdfunding. Thus, for the purpose of this research, we define empowerment as a strategy that requestors can use to systematically integrate funders in product design decisions that are subject to a crowdfunding campaign. The method used in this paper is a web experiment in order to test if funders who are provided with the possibility to actively participate in in product design decisions, will be more likely to support a campaign virally as well as financially. The underlying assumption behind our proposition is that the crowdfunding process might be psychologically enriched by allowing funder participation. We thereby draw on the theory of psychological ownership, which posits that people who create something develop more positive feelings toward "things" they created (Pierce et al. 2003). These positive feelings, in turn, will predict funders supporting behavior.

Theoretical Background

Crowdfunding: An Overview

For the purpose of this study we focus our research on reward-based crowdfunding. With a market share of 43%, reward-based crowdfunding constituted the most popular type of crowdfunding in 2012. Reward based crowdfunding has the largest number of online platforms and is the fastest growing form of crowdfunding (Massolution 2012). Apart from that, reward based crowdfunding differs from other types of crowdfunding in important respects. Thus, in this type of crowdfunding funders are not compensated by a monetary return in the form of interest rates or equity. Rather funders are compensated with non-financial, benefits in return for their financial support. These rewards can take on different forms such as for example a pre-purchase option of the product or service that funders support through their financial contributions. Other forms of compensation include copies of the financed product, simple appreciation (in the form of thank-you message, artist's autograph, mentioning the crowdfunder's name in the credits) or the possibility of user-participation (Hemer 2011).

One type of reward that seems to be particularly interesting from a research perspective is that of user participation. Thus, an increasing number of crowdfunding campaigns has started to systematically integrate customers in decisions regarding the design of the products and services that are subject to these campaigns. Types of participation can slightly vary according to the type of product or service that is advertised by a certain campaign. Thus, certain requestors allow backers to participate by voting on the color, the material or features of a certain product (Coolest cooler 2014). Other examples include campaigns that allow backers to participate in decisions that concern strategy as well as the policy of a company (MyFootballClub 2008). Still other campaigns allow backers to be even more creative by asking them to provide their own artwork (NUI-Case 2014) that is going to be used on the product.

Since reward-based crowdfunding usually deals with consumer products user participation constitutes a sensible strategy in order to come up with better fitting products at lower costs (Dahan and Hauser 2002). Additionally, integrating backers in decisions that go beyond the mere provision of funds might serve the purpose to motivate and to attract backers to support a certain campaign. In doing so, these new forms of participation might elicit new motivations among backers such as for example the wish to contribute to something as well as the wish to make things happen.

Research Model and Hypotheses Development

Empowerment: An Overview

With markets becoming more competitive and transparent and with customers being able to easily retrieve information from the web, the power dynamics between companies and customers have changed (Harrison et al. 2006; Schreier and Prügl 2008; Prahalad and Ramaswamy 2000). This holds also true for the financial industry. Crowdfunding is only one example showing how traditional gatekeepers such as banks get replaced by platform models that empower funders by allowing them to actively participate in investment decisions. The main rationale behind this new empowerment strategies is to lower risk by coming up with products that better fit customer needs (Dahan and Hauser 2002; Lilien et al. 2002; Ogawa and Piller 2006; Franke et al. 2010). Moreover, technological advancements have made customer empowerment also feasible from an economic standpoint (Nambisan 2002; Dahan and Hauser 2002; Füller et al. 2006; Sawhney and Prandelli 2000; Von Hippel 2005). Thus new participatory architectures allow for the simple and systematic integration of a large number of people at low costs. That customer empowerment can be a rewarding strategy for companies is also underpinned by research. Various studies show that customer empowerment can result in products that can seriously compete with products developed by traditional means and are characterized by high commercial attractiveness (Fuchs and Schreier 2011; Franke et al. 2010; Schreier and Prügl 2008).

Empowerment vs. Behavior in Crowdfunding

Recent marketing literature suggests that empowering customers leads to strong behavioral intentions of customers. Thus, findings suggest that customer empowerment leads to more favorable attitudes toward companies. A study by Fuchs and Schreier (2011) shows that companies that encourage customer empowerment in NPD are perceived to be significantly more customer oriented compared to companies with a zero-empowerment policy. Further results indicate that customer empowerment in NPD also yields economic benefits, because customers develop significantly stronger behavioral intentions toward companies making use of this particular strategy. Fuchs et al. (2010), for example, found that companies that empowered customers by integrating them into NPD attracted higher purchase intentions and a higher willingness to pay among these groups. These findings are in line with earlier theories proposing that investing oneself into a target elicits feelings of accomplishment that result in a higher valuation of the target (Pierce et al. 2003). Even more, results show that people who are empowered to influence the design of a product exhibit significantly higher word -of -mouth intentions as well as future loyalty toward the company using an empowerment strategy as compared to people who are denied empowerment (Fuchs et al. 2010). The findings support earlier theories according to which strong subjective ownership feelings (which are often the result of creating objects) encourage people to engage in affectionate display of the object that is subject to these feelings (see Pierce et al. 2003). Overall prior findings suggest that empowerment strategies might be used as an effective means to attract and influence customers. We argue that these empowerment principles are easily transferable to the context of crowdfunding. Thus, crowdfunding as opposed to traditional forms of financing offers an environment of rich interaction in which funders are given the possibility to make active investments. Funders are thereby allowed to directly communicate with the project's creator. We hypothesize that providing funders with the possibility to take part in decisions that go beyond mere funding (i.e., by allowing them to participate in the design of the product that is subject to the crowdfunding campaign) empowers funders in a sense that they form feelings of accomplishment. Funders will in turn reward requestors by forming more favorable corporate attitudes, ultimately resulting in funders being prepared to fund campaigns with higher amounts as well as engaging in increased viral dissemination of the campaign (compared to funders who are denied to actively participate in decisions that go beyond funding a crowdfunding campaign). This leads us to propose the following hypotheses:

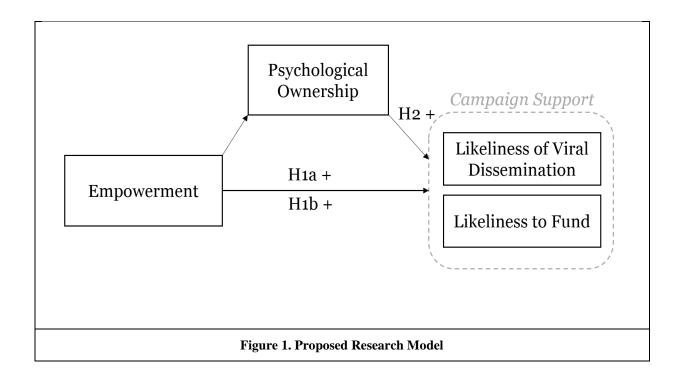
Hypothesis 1a: Empowered funders (i.e. funders that are systematically integrated in product design decisions) exhibit a higher likeliness to financially support a crowdfunding campaign than non-empowered funders.

Hypothesis 1b: Empowered funders (i.e. funders that are systematically integrated in product design decisions) exhibit a higher likeliness to engage in viral dissemination of the campaign than non-empowered funders.

Empowerment vs. Psychological Ownership in Crowdfunding

Literature in the field of marketing, has acknowledged that giving power to customers also results in immaterial benefits (Fuchs and Schreier 2011; Fuchs et al. 2010). Nambisan and Nambisan (2008) note that empowerment strategies generate benefits for customers that go beyond better fitting products that can be produced at lower costs. More specifically, Sawhney et al. (2005) remark that customer empowerment leads to closer customer-product relationships, thereby increasing customer's willingness to buy these products. Recent studies suggest that psychological factors play an important role when allowing customers to participate in the co-creation of products. Thus, by introducing the "I designed it myself effect", Franke et al. (2010) refer to positive psychological feelings that arise when giving customers the possibility to participate in the designing of products. Their study provides evidence that customer participation elicits feelings of accomplishment, thereby increasing the subjective value users attribute to a product (Franke et al. 2010). Even more, their results suggest that a visual representation of digital information suffices for customers in order to develop a strong personal relationship with the product. Despite the fact that most crowdfunding campaigns are designed to allow funders to contribute only financially, we argue that psychological ownership feelings might also play a role in crowdfunding. The relevance of such feelings might be even higher for crowdfunding campaigns that provide funders the possibility to participate beyond the mere provision of capital. Thus, we hypothesize that crowdfunding campaigns that allow funders to invest not only financially but also cognitively and emotionally (i.e., by allowing them to participate in the design of the product that is subject to the crowdfunding campaign) lead to a higher degree of psychological ownership than similar campaigns that deny funders this form of participation. Our contention is consistent with the general literature on empowerment positing that people who actively participate in decision making regard these decisions as part of themselves (Agarwal and Ramaswami 1993; Hunton and Beeler 1997). In other words, people assume psychological ownership of such decisions because they are partly responsible for the outcome, and this tends to elicit positive feelings (Barki and Hartwick 1994; Hui and Bateson 1991). These feelings, in turn, may lead funders to contribute higher funding amounts as well as engage in increased viral dissemination of the campaign via social media. Thus, we also predict that there is a relation between psychological ownership feelings of funders and the degree of support by funders. Based on the above considerations, we propose the following hypothesis:

Hypothesis 2: The relationship between empowerment and the level of support is mediated by psychological ownership feelings.



Methodology

Research Design

Since crowdfunding platforms are highly complex systems that are characterized by multiple externalities that influence each other (Belleflamme et al. 2015), we decided the best way to observe a clear effect is through conducting a randomized web experiment. The method of the experiment allows us to examine the actual behavior of funders. In addition to that, an experiment allows a high degree of control. Thus, it is possible to omit other influencing factors that may occur due to differing campaign characteristics (i.e., the campaign content, different seeding —levels, or rewards). Moreover, our research design allows us to clearly examine the link between certain strategies (i.e., empowerment vs. non-empowerment) and a subject's behavior. We therefore developed a one-factor between-subjects design with one treatment- and one control -group. Subjects of the experiment are randomly assigned to either one of the two groups. Participants of the first group will be exposed to the empowerment treatment. Participants of group two will be exposed to a non-empowerment condition (i.e., they lack the option to participate in decisions that go beyond the funding of the respective campaign).

Setting and Sample of the Experiment

We conducted our crowdfunding experiment in its natural web 2.0 environment. Moreover, we chose to model our campaign upon a real crowdfunding campaign that advertised a messenger bag for students and young professionals. We chose this setting for two reasons: First, we wanted our crowdfunding campaign to mimic reality as closely as possible. Second, we figured that a messenger bag constitutes a product that students can relate to and that can be easily used as a design object, therefore providing us the possibility to systematically integrate students in product design decisions.

The recruitment of participants took place at a German university. Participants were therefore invited to participate in a market test for a new crowdfunding campaign in exchange for two additional course credits. The study attracted a gross sample of 155 participants, of whom 83% completed the experiment. Average completion time was 23,3 minutes (SD=11,34). This number corresponds to the typical completion rates of online experiments (Davis and Metcalf 2014, McGinty et al. 2014, Sayama and Sayama 2011).

Research Procedure

The experiment followed a strict sequence. In order to participate in the study students had to activate a link which they received through an invitation mail. When entering the experiment participants received a short introductory note that informed them about the procedure of the experiment. Thus, they were informed that the whole procedure would take approximately 25 minutes and would consist of two parts namely a clickable crowdfunding campaign (part 1) and a questionnaire (part 2). More specifically, they were informed that they would participate in a test of a new crowdfunding campaign that was planned to go online in the near future. Therefore, they were told to put themselves in the position of a potential funder and to read the campaign content carefully and conscientiously. Participants were then asked to self asses their mood. We measured this variable before the participants engaged in the experimental procedure in order to avoid a confounding halo-effect. After measuring participant's mood, a short definition on reward-based crowdfunding was displayed. This was to ensure that students understood the context of the study and to familiarize them with the topic. Next students were randomly assigned to one of the two crowdfunding mock-up campaigns. Directly following the campaigns subjects were asked to indicate their likeliness to support the respective campaign. Finally, people were forwarded to the questionnaire that was used to collect the mediating and the control variables.

Materials and Manipulation

The campaign was modeled upon a reward-based crowdfunding campaign that was advertised on startnext (a german crowdfunding platform) not too long ago. The campaign featured a unique messenger bag. We decided to make use of this particular campaign for several reasons. Thus, as mentioned before we were looking for a campaign advertising a product that students are possibly interested in and can resonate with. Moreover, we were looking for a real life campaign that already employed certain features of empowerment. The used campaign fulfilled this requirement since it prominently advertised that, in case of successful funding, a configurator would be set up, that would allow participants to partake in decisions considering the design of the bag such as for example the choice of color and size

Manipulation was varied according to the experimental group that the subjects were assigned to (i.e. the control group or to the treatment group). In both groups, participants were presented with a clickable prototype advertising the above mentioned crowdfunding campaign. Subjects in the control group were presented a crowdfunding campaign with its basic functionalities. Thus, the campaign displayed all important information such as details on the founders, how the money is going to be used and why people should support the projects as well as the planned reward levels. In addition to that, subjects could watch a campaign video that summarized the most important campaign information. Subjects in the treatment condition were displayed a mock up with the very same campaign. However, in addition to that we provided participants in the treatment group with the option to actively participate in decisions on the product design. Therefore, we employed two empowerment strategies that were used before (see Fuchs and Schreier 2011), namely empowerment to vote and empowerment to create. The empowerment to vote strategy was incorporated by providing subjects the option to vote on their preferred color of leather, the color of the varn as well as the type of buckle that the bag should contain. The empowerment to create strategy was employed by giving subjects the option to come up with features that the bag should contain, such as an integrated mp3 player, a tracking sensor etc. Moreover, they were provided the option to come up with slogans, of which the most popular, they were told, would appear on the bag. Therefore, subjects where provided with a free form that allowed them to write down their preferred slogan.

Dependent Variables

As regards the dependent variables, they were measured as part of a questionnaire integrated in the mockup of the crowdfunding campaign. Likeliness to fund was thereby measured twofold, once via a 7 point Likert scale and twice by asking subjects how much they would be willing to pay for the advertised messenger bag (i.e. to collect relative funding amounts). To measure likeliness of viral dissemination we used a scale developed by Carrol and Ahuvia (2006) and adapted it to our context.

Mediating-, Moderating-, and Control Variables

The questionnaire following the mock-up of the crowdfunding campaign contained the most important mediating as well as control variables. As regards the mediators the questionnaire was designed to measure

psychological empowerment(Van Dyne and Pierce 2004, Spreitzer 1995), involvement (Zaichkowsky 1985) and product interest (Fuchs and Schreier 2011). Both constructs were measured using 7 point Likert scales (1 = "strongly disagree," and 5 = "strongly agree"). Moreover, in order to account for other influences on supporting behavior in crowdfunding and in order to rule out alternative explanations, we decided to capture additional variables (i.e. control variables) such as age, sex, gender and income and the mood of participants.

Preliminary Findings

To examine the differences of campaign support across the two experimental conditions conducted a t-test. Our results indicate that subjects in the treatment group (i.e. the empowerment condition) exhibit significantly more positive attitudes towards the respective campaign (p = 0.029). Similarly, participants in the treatment group report a significantly higher likeliness to support the respective campaign financially (p = 0.005) (as measured by the relative funding amounts). Furthermore, our results show that people who were able to actively participate in product design decisions are more likely to promote a campaign virally (p = 0.002). An additional t-test was conducted to examine differences in participant's feelings of psychological ownership across both conditions. A first analysis of our results indicates, that people who are allowed to actively participate in product design decisions report significantly higher feelings of ownership (p = 0.008 - 0.032).

Conclusion

Our study contributes to research on crowdfunding in two ways. First, we introduce a new research perspective, namely the concept of empowerment in the field of crowdfunding. This new perspective is important insofar as most research to date is rather of descriptive nature and leaves out the behavior of the individual funder. However, with the rising number of crowdfunding platforms and projects, funders are becoming a scarce resource. Against this background, it becomes more and more important to develop new concepts that attract funders and help to transform their motivations into actual funding behavior. Thus, the paper at hand discusses customer empowerment as a promising strategy that requestors can pursue in order to gain a competitive advantage in the crowdfunding marketplace. Second, our study follows the tradition of a design-oriented research approach. Thus, it is our aim to find out how certain design choices affect funding behavior and ultimately the efficiency of crowdfunding processes. Based on this, it is our goal to derive definite implications regarding the design of participation architectures for crowdfunding campaigns. Crowdfunding is thereby considered not only as a mere method of financing but as a design environment that holds potential for further improvement.

Limitations and Future Research

The scope of this research is limited. Therefore, our research does not provide any guidelines on how to most effectively design participation architectures in crowdfunding. The focus of this study rather lies on showing that new design elements have an effect on supporting behavior in crowdfunding. Thus, our study represents a first step in a series of research that aims to investigate backer participation in crowdfunding in more detail. As regards future research, we aim to examine different designs of funder participation with the aim to derive more concrete design implications for crowdfunding intermediaries.

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