Main drivers of crowdfunding success: a conceptual framework and empirical analysis

Rotterdam School of Management, Erasmus University
MSc in Business Administration

Specializations:
Marketing Management
Management of Innovation

Author:
Mart Evers (302538)

Coach:
Dr. Carlos Lourenço

Co-reader:
Dr. Paul Beije

September 2012
Preface

This master thesis is the results of research that has been done as part of the MSc in Business Administration at the Rotterdam School of Management, Erasmus University. I would like to take the opportunity to thank a couple of people; without them I would not have been able to write this master thesis.

First and foremost my thesis coach Carlos Lourenço. Thank you for recognizing the potential in my idea when I first approached you. Your enthusiasm boosted my motivation again, after I had been struggling for a long time to get my thesis on track. I would also like to thank you for all your effort put in our endless but interesting e-mail and Skype conversations, especially during my time in Copenhagen. I appreciate your quick responses, helpful guidance and thinking along very much. This helped a lot while I was not being able to meet in person and enabled me to make the best of this thesis.

I would also like to thank my co-reader Paul Beije. Thank you for quickly responding to my request and approving my thesis proposal. I would also like to thank you for your to-the-point feedback on my concept thesis. This definitely increased the quality and readability of my thesis.

Special thanks go to Pieter Anemaet. Thank you very much for developing the computer script that enabled me to collect the data for this thesis. Without you I would not have been able to collect this vast amount of data. I appreciate your selfless effort and your response to every small request I made very much! Your help enabled me to execute my idea to its fullest potential; I could have never done this alone and therefore I am very grateful.

Last but not least I would like to thank my parents. They have supported me unconditionally during my time at RSM and abroad for the last 6 years. I am very grateful for their guidance in every decision I have made during this period.

- Mart Evers
Rotterdam, 2012

The author declares that the text and work presented in this Master thesis is original and that no sources other than those mentioned in the text and its references have been used in creating the Master thesis. The copyright of the Master thesis rests with the author. The author is responsible for its contents. Rotterdam School of Management, Erasmus University is only responsible for the educational coaching and beyond that cannot be held liable for the content.
Executive summary

Recently, a new way of funding arose: crowdfunding. Crowdfunding entails soliciting for a large number of small amounts of money to an undefined group of people – the crowd. Despite the popularity of these radically new ways of acquiring funding for virtually any type of corporate and non-corporate project, little is known about people’s donating behavior on crowdfunding platforms. With crowdfunding becoming more popular as a successful alternative to traditional funding methods, it becomes crucial to understand the drivers of crowdfunding success or failure.

Aside from a present as a token of gratitude, donors making donations on crowdfunding platforms usually do not get anything in return for their donation. This means they do not acquire venture’s ownership, voting rights or profit shares in exchange for their contribution. Funds raised on crowdsourcing platforms could therefore be regarded as gifts.

Crowdfunding platforms could be seen as intermediaries between donors and beneficiaries. This intermediary could exploit a plethora of marketing techniques to influence the behavior of the potential donor. Therefore it is important to look at what influencing factors are being used on crowdfunding platforms. Bendapudi et al. (1996) developed a theoretical framework to explain how people’s helping behavior towards charities, which can be regarded as intermediaries as well, can be influenced. Although most crowdfunded projects are not initiated by charities, the motives to donate and therefore behavior of donors may be similar.

In order to empirically analyze to what extent the techniques charities use to influence helping behavior can be applied to crowdfunding, data is used from IndieGoGo (www.indiegogo.com), one of the biggest and oldest crowdfunding platforms worldwide. A customized computer script was developed that automatically and systematically scraped data of every eligible project. This way of data collection has resulted in a usable dataset of 314,724 donations to 8,807 projects in total.

In total 8 success drivers have been identified: image, cause of need, picture appeal, perspective advocated, social comparisons, decisional control, labeling and request sizes. Project success is defined as the total raised dollar amount. It is hypothesized that all success drivers have a positive influence on success, but the effect of the latter 5 success drivers are
moderated by the motives of the donors. Numerous measures are used to analyze the conceptual model using regression analysis. The effects of goal setting and anchoring were measured by means of the project’s funding goal and average donation category amounts. In addition, algorithms were used to determine the sentiment, ease of readability and length of project pitches. The extent to which potential donors were thanked and positively labeled was also estimated. The number of visual cues, like pictures and videos, were incorporated in the model to discover their added value compared to text-only pitches. The effect of social engagement on project success was incorporated in the analysis by looking at the number of comments.

The most important influencers of success are the funding goal and the number of comments. Project success is also directly associated with a short but positive project pitch. When the pitch has a positive sentiment, the reading ease of the text is of less importance. In addition, audiovisual cues definitely support the textual message. Adding a pitch is therefore essential. Also the tactic of labeling can be used: label the potential donor by using positive characteristics in the donation category descriptions. Mention for example that they are generous or kind when they donate. Signaling that small donations are also appreciated is another way to successfully increase the number of donations. This works best however for projects with a relatively small funding goal. Setting up many anchor points is found to be counter effective. Also the moderating effects of people’s motives was very weak and not convincing enough to take into account when setting up a crowdfunding project.

Crowdfunding is a very good alternative to traditional fundraising. People that are considering running a crowdfunding project should nevertheless realize that this is not an easy task. In order to be successful, the campaign has to be carefully designed upfront and executed with a lot of dedication. Still generally only relatively small amounts are raised, which makes crowdfunding less attractive for bigger or more mature organizations, if their goal is solely to seek funding.

Crowdfunding platforms in turn should facilitate and guide project initiators in such a way that they can optimize the success drivers in an easy way. Platforms should provide advice on how to write project pitches, make videos and how to configure donation categories. They could also implement algorithms to automatically analyze pitches in terms of word count, sentiment and readability.
# Table of contents

1 Introduction ........................................................................................................... 7
2 Background theory .................................................................................................. 9
3 Data .......................................................................................................................... 11
   3.1 Data collection .................................................................................................... 11
      3.1.1 Project pitch ......................................................................................... 12
      3.1.2 Funders ................................................................................................. 13
      3.1.3 Gallery ................................................................................................. 13
4 Modeling crowdfunding ............................................................................................ 14
   4.1 Helping behavior .............................................................................................. 14
   4.2 Antecedents of helping behavior ....................................................................... 15
      4.2.1 Source drivers ...................................................................................... 16
      4.2.2 Message drivers ................................................................................... 16
      4.2.3 Request drivers ................................................................................... 22
   4.3 Moderators of helping behavior ......................................................................... 23
      4.3.1 Donor moderator - motives .................................................................... 23
      4.3.2 Non-donor moderators .......................................................................... 25
   4.4 Operationalization of success drivers ............................................................... 27
4.5 Measures .............................................................................................................. 27
   4.5.1 Crowdfunding success ............................................................................... 27
   4.5.2 Image ......................................................................................................... 27
   4.5.3 Cause of need ......................................................................................... 28
   4.5.4 Picture appeal ......................................................................................... 28
   4.5.5 Perspective advocated ............................................................................. 28
   4.5.6 Social comparisons .................................................................................. 28
   4.5.7 Decisional control .................................................................................... 29
   4.5.8 Labeling .................................................................................................... 29
   4.5.9 Request sizes ........................................................................................... 29
   4.5.10 Motives ................................................................................................. 30
5 Results .................................................................................................................. 31
   5.1 Regression model ........................................................................................... 31
5.2 Missing data .......................................................................................................................... 32
5.3 Multicollinearity ...................................................................................................................... 32
5.4 Results base model .................................................................................................................. 33
  5.4.1 Image ................................................................................................................................. 33
  5.4.2 Cause of need .................................................................................................................... 34
  5.4.3 Picture appeal ................................................................................................................... 34
  5.4.4 Perspective advocated ...................................................................................................... 35
  5.4.5 Social comparisons ........................................................................................................... 35
  5.4.6 Decisional control ............................................................................................................ 36
  5.4.7 Labeling ............................................................................................................................ 36
  5.4.8 Request sizes ..................................................................................................................... 37
5.5 Moderators ............................................................................................................................. 37
  5.5.1 Results of moderators ...................................................................................................... 39
6 Conclusion .................................................................................................................................... 41
  6.1 Managerial implications ......................................................................................................... 42
  6.2 Limitations ............................................................................................................................. 44
  6.3 Further research .................................................................................................................... 44
7 Bibliography .................................................................................................................................. 46
8 Appendices .................................................................................................................................... 51
  8.1 Appendix A: List of variables ............................................................................................... 51
  8.2 Appendix B: Example of IndieGoGo project pages ................................................................. 53
Introduction

With the rise of Web 2.0 and the convergence of media (Jenkins 2006) new ventures can be started-up by virtually any person or group, be it as creative startups, entrepreneurial startups, movements for good causes, or other ventures. New ventures face difficulties when it comes to acquiring sufficient funding, especially in the very initial stage of existence. For small ventures without significant assets it is very difficult to get bank loans, and in most cases they seek venture capital – hard to acquire due to high rejection rates. Therefore they are more likely to obtain funds from private individuals (Cosh 2009), which remains a challenge.

Recently, a new way of funding arose: crowdfunding\(^1\). Crowdfunding entails soliciting for a large number of small amounts of money to an undefined group of people – the crowd. In the last years crowdfunding platforms were launched in large numbers across the globe; Kickstarter.com being one of the largest ones. In April 2011, Kickstarter.com reported 7,496 successful projects (i.e. the funding goal was reached), which in total raised approximately $40 million worth of donations (Strickler. 2011).

Despite the popularity of these radically new ways of acquiring funding for virtually any type of corporate and non-corporate project, little is known about people’s donating behavior on crowdfunding platforms. With crowdfunding becoming more popular as a successful alternative to traditional funding methods, it becomes crucial to understand the drivers of crowdfunding success or failure.

This research takes an initial step towards filling in this gap. Specifically, (1) it adapts the helping behavior theory to the case of crowdfunding, and (2) empirically tests this framework using rich data from funding projects of a popular online crowdfunding platform. The framework identifies the project characteristics deemed essential to successfully complete a crowdfunding project. We then test these characteristics with real crowdfunding data. Given the massive data collected, we also offer extensive details on their collection procedure, which may serve as a reference for researchers interested in collecting data freely available online.

Our study will contribute to a better understanding of (gift) giving behavior, especially complex in face of new channels that make use of radically new communication tools to

---

\(^1\) Crowdfunding is part of the overarching concept crowdsourcing: outsourcing tasks that were formerly performed in-house by employees to a large unknown group of people in the form of an open call (Howe. 2006).
attract donors, such as users’ comments or social media sharing (e.g. through Facebook). In addition, this research will contribute to the debate on whether crowdfunding is suitable as an addition to or substitution of more traditional funding channels. Our results may serve to support managers on their decisions about whether and how to set up a crowdfunding project.

The remainder of this manuscript is organized as follows. In the next section we offer a summary of the theoretical underpinnings of gift giving and helping behavior, which sets the background for our data collection process (section 3) and the development of our conceptual framework (section 4). The empirical analysis is conducted in section 5, where we present our main findings. Section 6 summarizes the main conclusions and offers a set of managerial implications, while pointing to some limitations of the current study that may serve as a starting point for future research.
2 Background theory

Aside from a present as a token of gratitude, donors making donations on crowdfunding platforms usually do not get anything in return for their donation. This means they do not acquire venture’s ownership, voting rights or profit shares in exchange for their contribution. The act of donating on a crowdfunding platform thus cannot be viewed as a pure form of economic exchange where goods are given in exchange for money or other goods (Bagozzi 1975). Funds raised on crowdsourcing platforms could therefore be regarded as gifts.

Gift giving has been researched for a long time in many scientific domains. The vast majority of this research only investigates gift giving in traditional social systems such as families, neighborhoods or churches (Mauss 2002, Malinowski 1978, Sherry Jr 1983, Lowrey et al. 2004). Postmodern consumer gift systems are more geographically dispersed and technologically networked. Gift giving in these social systems is often limited to intangible goods such as files and ideas. It shows however that people nowadays are also willing to help people outside of their immediate social environment. It argues that people now also help people or projects that are more aligned with one’s own interests and values (Sherry Jr 1983, Giesler 2006, Skågeby 2010).

These theories are based on peer-to-peer helping, without an intermediary being present. However, crowdfunding platforms could be seen as intermediaries between donors and beneficiaries. This intermediary could exploit a plethora of marketing techniques to influence the behavior of the potential donor. This is only possible to a very small extent in a peer-to-peer situation. Therefore it is important to look at what influencing factors are being used on crowdfunding platforms. Bendapudi et al. (1996) developed a theoretical framework to explain how people’s helping behavior towards charities can be influenced. Although most crowd funded projects are not initiated by charities, the motives to donate and therefore behavior of donors may be similar. Charities act as the intermediary between the donor and the beneficiary. The framework focuses on “people helping the needy through intermediary charitable organizations” (Bendapudi et al. 1996).

Bendapudi et al’s (1996) framework identifies multiple categories of drivers that explain helping behavior. These categories are again divided into antecedent drivers and moderating drivers. Antecedent drivers are regarded as the charity controlled factors. That is, the charity organization itself can how they shape these drivers in order to increase the
frequency and volume of helping behavior. Antecedent drivers are categorized in source, message, and request drivers. **Source** drivers comprise the overall image that the charity and the beneficiary convey when they solicit for help. **Message** drivers are elements within the message the potential donor is confronted with, in order to convince him to help. **Request** drivers determine how much help is solicited for. Moderator drivers are characteristics of the potential donor that might alter the effect of the antecedents while soliciting for help (Bendapudi et al. 1996).

Since crowdfunding platforms can be seen as intermediaries comparable to charities, effects explained in Bendapudi et al.‘s (1996) framework could also be applicable to donating to crowdfunding projects. This framework will therefore be adapted to the purposes of this research. Specifically, the framework is used to guide which data and variables are important to measure the drivers identified as determining the success of asking for donations.
3 Data

In order to empirically analyze to what extent the techniques charities use to influence helping behavior can be applied to crowdfunding, data is used from IndieGoGo (www.indiegogo.com), one of the biggest and oldest crowdfunding platforms worldwide. It was founded in 2008 and since its inception it has distributed millions of dollars over tens of thousands of projects (Hockenson. 2012). IndieGoGo offers the possibility to raise funds in a wide variety of project categories. There are three main categories which in turn are subdivided in 24 subcategories in total:

- **Creative projects:** Art, Comic, Dance, Design, Fashion, Film, Gaming, Music, Photography, Theatre, Transmedia, Video / Web and Writing.
- **Good cause projects:** Animals, Community, Education, Environment, Health, Politics and Religion.
- **Entrepreneurial projects:** Food, Small Business, Sports, Technology

Any person anywhere in the world with a cause for funding can run a crowdfunding project. The initiator has to provide a minimum of three basic requirements to the crowdfunding platform: a funding goal (i.e. the amount of money he wishes to raise), the runtime of the project (i.e. the number of days it is possible for the crowd to donate to the project), and a project pitch (i.e. a verbal and/or visual appealing description of the project). In addition, the initiator can set up multiple donation categories and accompanying perks. That is, when someone donates a certain predetermined amount, he will receive a token of gratitude – a perk, short for “perquisite” – from the initiator. Perks may vary from a personal thank you note from the initiator to a customized version of the project’s end product. Perks depend fully on the amount donated and are displayed on the project page.

3.1 Data collection

Data were collected from finished projects still accessible on IndieGoGo at the time of data gathering (May 2012). A customized computer script was developed that automatically and systematically scraped data of every eligible project. Data from projects still running at the time of data collection were discarded, because donations could still be made at that moment. In addition, projects with a lot of donors could not be recorded. When a project had approximately more than 1,300 donors, the script crashed and lost this data. 95% of the
projects in the sample however have 100 donors or less. Therefore it is very unlikely that this shortcoming of the script biases the analysis. This way of data collection has resulted in a usable dataset of 314,724 donations to 8,807 projects in total.

As shown above, IndieGoGo offers a wide variety of project categories and is therefore suitable for practically any type of project. Therefore the sample should be representative for all crowdfunding projects that regard funds as gifts. The sample is also a convenience sample however. On IndieGoGo finished projects, regardless of outcome, stay easily accessible for a long period of time. Also the architecture of the website made that the computer script could easily find all accessible projects and record their data. This resulted in data from projects up to 4 years old.

In the next sections the separate elements of a project are described – project pitch, funders page and gallery page. The specific elements that are used for empirical analysis are elaborated on in detail. A full list of all the exact variables that are used can be found in appendix A. Screenshots of an IndieGoGo project in the way it was shown at the time of data collection can be found in appendix B.

3.1.1 Project pitch
The project pitch page is the first page a potential donor sees when clicking on a project in any category. The page shows the title, description of the project and pitch visual. The pitch visual is either a picture or video (or nothing) of the project. The pitch visual is shown immediately in the center of the screen of the visitor as soon as the page has loaded. Therefore it catches a lot of attention and forms the first impression of the project.

Navigation links are presented to go to the updates page, the comments page, the funders page and the gallery page. These links also show the current number of updates, comments, donors and gallery items. The updates page is a separate page where the project initiators can place updates about the projects during the fund raising period. On the comments page (potential) donors can write short comments to engage with the project initiators and other donors. In addition, social share buttons can be used to share the web address of the project via e-mail or social network sites (e.g. Twitter, Facebook and Google Plus).
The current raised amount, funding goal and time left to donate are prominently displayed. In addition to the financial information about the project, the project donation categories and perks are listed. For each category the required amount, name of the perk and a short description of the perk are shown. Also the number of donors that already have claimed that particular perk is listed. The project initiators can decide how many, if at all, donation categories and perks they wish to offer. The amounts of the donation categories are also decided upon by the project initiators. These are however minimum amounts. Donors can decide to donate more if they wish.

Lastly, a list of hyperlinks to external pages where the project is featured on is shown. This could for example be links to a dedicated project website, Twitter account, Facebook page, YouTube movie and more. Also all the team members that are involved with the project are shown.

3.1.2 Funders
A separate page is dedicated to the donors that already have contributed to the project. On this page all the donors that currently have donated money are listed. Donors can choose among a couple of different ways on how they wish to be listed on this page:

- The full (nick) name of the donor is shown. An avatar and link to their IndieGoGo profile page will be added if they are registered on the website. It is also possible to donate without registering. Next to this the donated amount and the claimed perk is shown.
- The other option is to list the donation fully anonymous. This means that both the name of the donor and the donated amount are listed as ‘Anonymous’.
- In addition to these two extremes, it is possible to only show the name, but list the amount as anonymous.

3.1.3 Gallery
The gallery is a dedicated page where the project initiators have the possibility to showcase additional visual material. Pictures as well as videos can be placed here as an addition to the pitch visual on the project pitch page. It is not possible however to put a textual descriptions next to the gallery items. Only the number of pictures and videos in the gallery are used for analysis in this research.
4 Modeling crowdfunding

In this section the conceptual model of this research will be outlined. The conceptual model is based on Bendapudi et al.’s (1996) framework of helping behavior. It is argued that this framework can be applied – however partially – to crowdfunding (cf. section 2). In this section this framework is therefore adapted. Relevant success drivers for crowdfunding from Bendapudi et al. (1996) are identified and their effects hypothesized. Parallel to this we elaborate on how the adopted success drivers are embedded in existing marketing and social psychology literature. At first, helping behavior and crowdfunding success are defined in subsection 4.1.

Several terms are used frequently in this section, explained here upfront. The solicitor is the person or the group of persons that initiated a project on a crowdfunding platform. The beneficiary is the person or group of persons that receive the raised amount of money after the project has finished. Since the solicitor and beneficiary are always the same people, these terms will be used interchangeably, depending on the context. The potential donor is the person or group of persons that the solicitor reaches out to in order to make him donate to his crowdfunding project. Helping behavior in terms of crowdfunding is the act of donating any amount of money to a project. We refer to the complete conceptual model outlined in Figure 1.

4.1 Helping behavior

Helping behavior is the observable act of donating to the solicitor. This happens after the solicitation is perceived by the potential donor. There are three levels of helping behavior that can be identified. The potential donor might not want to help at all; in that case the solicitation had no effect at this point in time. If the potential donor decides to help, this can either be in the form of token help or serious help. Token help is a modest contribution to either let the solicitation go away or decrease the personal distress of not helping at all. Serious help is a substantial contribution to really help the cause to match its needs and achieve its goal.

The degree to which a potential donor complies with the request for help will depend on a cost-benefit trade off that is made by the potential donor. The benefits may, depending on one’s motive, include achieving self- or social rewards, avoiding self- or social punishments, avoiding personal distress or enhancing the other’s welfare. Costs involved may
be financial, physical, psychological or social. Also opportunity costs may be involved (Bendapudi et al. 1996).

Potential donors can to date only donate money to crowdfunding projects. This is inherent to the phenomenon. Donating money directly contributes to reaching the funding goal that is set at the start of the project. To what extent the funding goal is reached will determine to what extent the solicitor is capable of executing his project. After the project has ended, the solicitor can compare the actual money that is raised by the crowd to the goal that he had set up front. The consequences of helping behavior therefore affect the beneficiary, because his need gets relieved. In addition they can identify to what extent their efforts were successful and how they can adapt (Bendapudi et al. 1996).

Different crowdfunding platforms have different procedures however, which affects the determination of success. On some platforms the solicitor only gets the total raised amount when the funding goal is reached or exceeded. When the funding goal is not reached at the end of the fundraising period, all donators get automatically refunded and the solicitor receives nothing. In such a case, the solicitor can only execute his project when he reaches or exceeds the funding goal. To determine whether the crowdfunding campaign was a success is very simple: the raised amount must be the same or higher than the funding goal.

On other platforms the solicitor may keep the raised amount at the end of the campaign period independently of the funding goal that was set at the beginning. This way, success becomes more reliant on other factors. It is very likely that the solicitor can (partly) execute his project when only 80% or 90% of the funding goal is reached. The boundary for success and failure becomes blurry, but also less relevant. It might hypothetically be possible to execute a $1,000 project when only $850 is raised (a success rate of 85%), but it might be impossible to execute a project that has only raised $95,000 where $100,000 is needed (success rate of 95%). Therefore it is always important to perceive the success in relative terms compared to the funding goal and in absolute terms, i.e. the exact amount that is raised.

4.2 Antecedents of helping behavior

The antecedents of helping behavior influence the perception of need, and they influence the potential donor prior to their actual helping behavior. They make the donor aware of the call for help and consequently make an attempt to motivate him to donate. These antecedents are
to a large extent controllable by the solicitor and therefore can be optimized to maximize donations.

4.2.1 Source drivers

The overall image of the solicitor influences the perception of need. If the solicitor is able to show that they possess a high level of managerial effectiveness, fundraising efficiency, appropriate levels of campaign intensity and avoidance of political controversy, the perceived image of the solicitor will improve (Harvey 1990). Next to these managerial aspects, the solicitor needs to be perceived as familiar and credible in the eyes of the potential donor, in order for the potential donor to realize that helping is useful (Kelman 1961). When these perceptions are absent or negative, the first step to perception of need is distorted and may result in ignoring or rejecting the solicitor's message and consequently in no helping behavior.

In the case of soliciting for charitable organizations, the charity organization is the source of the message and therefore needs to be perceived as outlined above. In the case of crowdfunding, the source of the message is the solicitor and beneficiary at the same time. Although it is difficult to exactly measure these dimensions of image, there are some proxies to make an estimation of the amount of effort that the solicitor(s) put(s) into his/their project. One can assess the project members, the project description, updates and external platforms used to promote the project. All these items might be influence the image of the solicitor(s).

Although not the source of the solicitation, the crowdfunding platform itself can be compared with the charitable organization, in the sense that it is the intermediary between the solicitor and the potential donor. The crowdfunding platform exists for a longer period of time and can thus build up a reputation. The potential donor will take into account when considering donating to a project whether the platform the project is featured on is reliable. The potential donor could for example think of previous projects that were funded via this particular platform, to what extent the payment of donations where handled securely and whether the platform provides enough opportunities to put projects into the spotlight and convey their message in an effective way.

4.2.2 Message drivers

The perception of need is also influenced by the message the solicitor sends about the cause of need. When the credibility of the message increases, the perception of need will increase
and hence there is a higher probability that helping behavior is rendered. The drivers influencing the credibility of the message are therefore discussed next.

4.2.2.1 Cause of need
First the potential donor will look at the cause of need. If the reason for soliciting for help is caused by an external uncontrollable factor the need is perceived to be bigger than when the need is caused by someone’s own actions. In such a situation an emphatic response is more likely to occur. Thus people are more inclined to help when the cause of need is external (Griffin et al. 1993).

Most crowdfunding projects however are not ‘caused’ by external factors, but are the results of the ideas of the solicitor. In most cases they need funding for small to medium scale projects such as movies, music, writing, but also entrepreneurial startups, for which traditional funding is difficult to acquire. Next to these ‘ambitious’ or ‘selfish’ projects, funds for charitable causes are also raised on crowdfunding platforms. Usually this is for small charity projects intended for local communities, e.g. to save animals or increase the quality of health care or education. Following theory it could thus be hypothesized that charitable crowdfunding projects are more successful than other non-charitable crowdfunding projects.

4.2.2.2 Picture appeal
Perceived need is not only assessed on characteristics of the sender of the message, also the content of the message itself matters. In most cases the message exists for the largest part of a textual appeal. Adding a picture to the textual message may however increase the perceived need for help. Pictures help people that are less motivated or capable of processing a certain message to comprehend a message more easily (Childers and Houston 1984). Pictures tend to be processed more holistically and integrative in the brain. A more global focus on the features in the picture is the result. This helps people to evaluate objects that are more aesthetic, sensory or symbolic in nature. Such objects are hard to judge by merely adding up utility scores. People are however more inclined to do this with verbal appeals (Holbrook and Moore 1981).

In addition, research has showed that spoken information (e.g. in tv commercials) is processed by a different part in the brain than is written information (Petersen et al. 1989). If both modalities of conveying information – i.e. written and spoken – are used simultaneously, information might interfere as well as integrate with each other. This is caused by the
switching of modality but also matching specific information and creating an organized memory network. Alternating written and spoken information should hence lead to a better processing of item specific information, but less on relating information within the memory (Tavassoli 1998).

On the other hand, providing potential donors with more and more modes of information, may lead to confusion. Due to information overload, i.e. the “finite limits of human beings to assimilate and process information during any given unit of time” (Jacoby 1977), the ability of decision making becomes less accurate and effective (Jacoby 1977). While the potential donor might feel more satisfied with more information, decision making capability will become poorer and perceived risk might increase due to information overload (Jacoby et al. 1974).

Crowdfunding is very well suitable to exploit the benefits of showing visual cues alongside verbal cues. By showing pictures and videos of the project information can be assimilated and processed by the potential donor in multiple ways. Variety in information provision should hence increase the understanding of the need. Despite the fact that research is only being done on cognitively processing written and spoken in cues within a single video, this provides reason to assume that videos might have an additional effect next to written text and static pictures only.

The number of additional cues in terms of pictures and videos need to be focused on as well. Too much information might cause information overload and can potentially turn away a potential donor. Since lots of projects are running at the same time, the potential donor must be able to quickly assess projects. If too many cues are shown within the same project, the potential donor might get confused or unwilling to process and withdraw from donating.

4.2.2.3 Perspective advocated

When it comes to the textual message of the project itself, the perspective advocated influences the perceived need. In order to arouse empathic feelings for the beneficiary and hence greater altruistic motives, most solicitations emphasize how the potential donor would feel if they were in the beneficiary’s current situation. However, this leads to the potential donor to derogate from the subject and feel less empathy for the beneficiary (Aderman et al. 1974). A more positive effect is generated when the solicitor emphasizes how the beneficiary must be feeling (Aderman and Berkowitz 1970). When a message stimulates people to take
another than one self’s perspective, one will show congruent emotional reactions (Davis et al. 1987). Therefore, when someone takes the perspective of a person in need, empathic emotions are aroused and the motivation to help rises (Coke et al. 1978, Dovidio et al. 1990).

Hence the solicitor should not solely focus on a detailed description of his project. The perspective the solicitor chooses in his message should be carefully considered. The project should be more successful when not only an overview of the project itself would be given, but also if this personal perspective of the beneficiary is added. In a broader sense it can be argued that the textual message itself must be drafted carefully. A potential donor must be able to understand it easily and convey a positive sentiment in order to arouse congruent feelings.

4.2.2.4 Social comparisons

Next to informational and emotional appeals to potential donors, other instruments can be used to enhance helping behavior. Social comparisons can be used to emphasize that helping is the norm. In such a case, potential donors will most likely comply with the request for help. The knowledge that others have helped creates pressure on a person to do the same. The expression of these acts of helping, however, does not show the reason behind the action. Nevertheless, when one has limited information available, the information signaled from the observed behavior of all previous donors will outweigh one’s personal information. Therefore most people are inclined to replicate the actions of the majority of the people. They might even imitate the actions of others, even when their personal information contradicts the correctness of these actions. This is referred to as herding behavior (Banerjee 1992, Zhang and Liu 2011).

Through the process of behavioral learning and herding, potential donors are more inclined to donate when lots of other people did the same before. Therefore presenting a (fictitious) list of donors and donations should result in higher compliance rates and higher donations. The opposite is true as well (Chen et al. 2011). Social comparisons work best when they are provided alongside information about the cause and the positive consequences helping behavior will have. If the social tie with the referent group is close, there is a great interaction effect which has a positive impact on the compliance rate of the request for help (LaTour and Manrai 1989).
The mechanisms of social comparisons can very well be applied to crowdfunding. Potential donors can investigate before they make a donation how many people made a donation already. There is no need to show a fictitious list. Because crowdfunding takes place on the internet, an up to date lists of real donations can be showed at all times. The more donations are made, the more the effect of social comparisons on helping behavior of the potential donor should be apparent. In addition to this, other cues of high donor engagement with the project might have an influence on helping behavior (e.g. number of comments).

4.2.2.5 Decisional control

When a potential donor is given the freedom to choose who, when, what, and how to help, greater helping behavior is the result. Perceived choice is an important type of control. Providing choice increases decisional control and ultimately overall perceived control (Hui and Bateson 1991). Most people prefer to choose the course of action by their own, rather than someone else making the choice for them. Dependent on number of choices the person agrees on or can identify, one can experience freedom, but also feelings of conflict or helplessness (Averill 1973).

Wortman (1975) argues that causality and foreknowledge can lead to feelings of choice. The perception that an experience or outcome is caused by one’s own decision will positively affect emotion and result in more positive psychological and behavioral outcomes (Hui and Bateson 1991, Wortman 1975).

With choices provided, the potential donor is able to optimize their resource allocation, which should lead to greater helping. The underlying concept of this is strategic altruism: choosing a beneficiary that does not take the help for granted and therefore sees no incentive to behave responsibly (Bruce and Waldman 1990).

How and when to help are restricted at crowdfunding projects; it is only possible to donate money within the runtime of a project. To who and what to donate can be determined by the potential donator however. In every project category there are lots of projects running at the same time. Therefore the more projects there are within the same category, the higher the likelihood that there is more choice for donation at any given time. Hence, projects in categories with a reasonably large number of projects should be more successful. In addition, solicitors can create multiple donation categories for their project. Projects with a large
variety of donation categories should thus increase the perceived choice of potential donors. These projects should therefore render more helping behavior and be more successful.

4.2.2.6 Labeling

Appealing to characteristics of the potential donor may also lead to greater helping behavior. The solicitor could use *labeling*, i.e. giving labels to potential donors purportedly based on their behavior to motivate them to behave according to the label. If the labeler is considered as not manipulative and the potential donor has no immediate counterevidence, the label will be considered as true. The potential donor will believe that he possesses the characteristics described by the label. Also the favorability of the solicitor and his message tends to increase. Overall the inclination to help will be bigger (Moore et al. 1985, Swinyard and Ray 1977). Thus labeling donors with positive characteristics, e.g. kind, generous or helpful, will result in greater helping behavior.

In addition, acknowledging and thanking a donor can reinforce desired behavior. Positive reinforcement is much more effective than negative reinforcement. Thanking is a form of positive reinforcement which will positively influence the relationship with the solicitor. Therefore thanking donors is supposed to lead to increased helping behavior (Carey et al. 1976).

Donation categories of crowdfunding projects can be *labeled* with a name and a description. This description is often used to describe the perk – the gift in return for the donation – which the donator can claim when a donation in this particular category is made. However, when these category names and description contain positive characteristics of people, such as generosity and kindness, people should be more inclined to help.

Also when these category names and description express that the solicitors are thankful or grateful, this might positively influence helping behavior. The theory focuses mainly on repeated donations and the effect of thanking. In terms of crowdfunding, donors usually only donate once to a specific project. Nevertheless, labeling provides the opportunity to already express gratitude before the donation is made. Therefore the positive effects of thanking could also be applicable to potential donors and first time donations.
4.2.3 Request drivers

Request drivers form cues to the potential donor of what possibilities there are to help. The solicitor can suggest some of these possibilities, i.e. providing anchor points. Therefore the solicitor needs to take the request size – the amount of money that is asked for – into consideration. The potential donor has to have the impression that he can actually help, he must believe in his self-efficacy. The solicitor can influence this belief by making the request size reasonably high, so the potential donor believes he is not effortless in reducing the need for help. In addition, if potential donors believe they do not have the means to help, the solicitor can adjust the size of the request to emphasize that even a small donation is effective and appreciated. This is referred to as token help.

When reasonably large request sizes are chosen, the average donation size should increase. Large request sizes provide anchors against which potential donors can compare their potential donation to. Assimilation and contrast theory suggest that moderate contributions seem less generous when they are compared to large anchor points (Sherif et al. 1958). This should consequently result in higher contributions, compared to a situation where no anchor points are provided (Fraser et al. 1988).

On the other hand, legitimatization of minimal assistance should increase the number of donations made. If only a small amount is requested, the potential donor is less likely to argue that he cannot afford to donate. Also the internally rendered contribution size of the potential donor seems more generous when compared with the low anchor point (Cialdini and Schroeder 1976). Compared to a situation where no anchor points are provided, allowing token helping should therefore increase the number of donations without affecting the average donation amount (Fraser et al. 1988).

Assimilation and contrast theory suggest that when both low and high anchor points are combined, their impacts are likely to be neutralizing. Compared to the high anchor point, a small contribution seems insignificant and therefore not helping. Compared to the lower anchor point a moderate contribution seems generous. In addition, suggesting a low donation may be perceived as suspect (a potential donor might for instance think: “$1 would help, but $100 is asked for. I can’t afford $100 and the solicitor can’t be serious about accepting $1” (Fraser et al. 1988)). Fraser et al. (1988) find that using only reasonably high anchor points in
a solicitation increases the total amount raised significantly compared to a solicitation without any anchor points (Fraser et al. 1988).

This would suggest that it is wise to include only reasonable high donation categories in a crowdfunding project. Offering the possibility to also make a token contribution is supposed to not increase the total amount raised. The theory discusses only stating one anchor point however. Crowdfunding platforms offer the possibility to list multiple anchor points and multiple perks. Also the total funding goal of a project is listed. If this is unreasonably high, people might believe that they are not able to help. These factors might therefore minimize the hypothesized effect of anchor points on helping behavior.

4.3 Moderators of helping behavior

Moderator variables change the impact of the antecedent variables on the helping behavior of donors. These moderators are uncontrollable factors for the solicitor. They are divided into donor and non-donor variables. Donor variables are characteristics of the donor. Non-donor variables are characteristics of the environment the donor lives in.

4.3.1 Donor moderator - motives

The reason why a potential donor is willing to make a donation can be identified by his motives. Motives can be put on a continuum ranging from entirely egoistic to entirely altruistic. A potential donor can thus have a combination of both egoistic and altruistic motives for their helping behavior (Batson 1987, Baumann et al. 1981). Usually one of the two motives is more prevalent though (Clary and Orenstein 1991). People who are dominantly egoistic have the goal to increase their own welfare in the broadest sense. On the other side, dominantly altruistic people want to increase the other’s welfare or relief the other’s need by helping (Batson et al. 1981).

4.3.1.1 Egoistic motives

Egoism can be distinguished by two categories. The first one is gaining rewards for helping or avoiding punishment for not helping. These rewards and punishments can have intangible psychological and cognitive outcomes, as well as tangible rewards and punishments. They may be noticed by one self (pride versus guilt) or by society (praise versus censure) (Batson 1987, Baumann et al. 1981). People behaving in accordance with this category are motivated
to help by getting recognition, belonging, career promotions, tax advantages, peer pressure or political gains.

The second category of egoism deals with the concern of one’s personal distress. When someone encounters a person or situation in need, distress (e.g. sadness) may be experienced. This distress can either be reduced by relieving or ignoring the need. The ultimate goal is to reduce the personal distress, so the motive is still considered as egoistic although it looks altruistic (Griffin et al. 1993, Batson et al. 1981, Batson et al. 1983, Cialdini et al. 1987).

4.3.1.2 Altruistic motives
The goal of dominantly altruistic motivated people is, opposed to egoistic motives, to enhance the welfare of the ones in need, due to feelings of empathy. At the extreme end, even the own welfare may be jeopardized (Dovidio et al. 1990, Krebs 1975). It is possible however to experience multiple motivational states at the same time. If these states are compatible with the situation at hand, probability for helping behavior to occur is very high. If not, there is a tendency to act according to the stronger motive (Batson et al. 1981).

4.3.1.3 Moderating effects of motives
There are some differences in how and why dominantly egoistic and dominantly altruistic people are committing to helping behavior. Egoistically motivated people see helping as a means to an end whereas altruistically motivated people are driven by the actual need of the other. Consequently, altruistically motivated people will either choose to provide serious help or no help at all, dependent on their capabilities to help (Clary and Orenstein 1991). They believe token help does not alleviate the need of the other in a sufficient way. On the other hand egoistically motivated people will opt for token helping more. They will try to reap the benefits of helping (e.g. gaining personal recognition, being perceived as a generous person, etc.) at the lowest possible costs. Hence, in order to attract helping for altruistically motivated people solicitors should emphasize the need, whereas for egoistically motivated people solicitors should allow token helping and provide clear benefits for the donor.

Each motivational state thus moderates different antecedent variables. If someone with a dominant egoistic motive is solicited for helping behavior, he is mostly affected by labeling, social comparisons, decisional control (to gain rewards or avoid punishments) and size of request (to reduce personal distress). Someone’s helping behavior caused by dominantly
Altruistic motives is influenced by the *perspective advocated*. Altruistically motivated people are less sensitive to the other aforementioned factors, but more focused on the need of the beneficiary.

Egoistically motivated people will hence evaluate multiple cues but only make a contribution within the lower donation categories (token help), because this is the best cost/benefits tradeoff for them. They will claim their perk and they will choose to put their name on the public donors list for recognition. Altruistically motivated people will disregard most of the cues and make a serious contribution when the focus of the solicitation is on the need and the feelings of the solicitor. They don’t want necessarily something in return, so they won’t claim their perk and also only appear anonymously on the public list of donors.

Projects of solicitors that paid attention to *labeling, social comparisons, decisional control* and *size of request* should attract relatively more egoistically motivated people. Projects of solicitors that mainly paid attention to the *perspective advocated* should attract mainly altruistically motivated people. Consequently, solicitors that carefully configured all antecedent variables should receive donations from donors everywhere on the continuum from totally egoistic motives to totally altruistic motives. Hence, the latter projects should be the most successful since they appeal to the most people.

### 4.3.2 Non-donor moderators

The extent of helping behavior that is provided also depends on variables that are not related to the potential donor’s characteristics. The non-donor variables included in Bendapudi et al.’s (1996) model are *government policies, state of the economy, social norms, technological possibilities* and *competing charities*. Given the newness of the phenomenon crowdfunding, no hypotheses can be derived yet about non-donor variables. It can be argued that these variables haven’t changed significantly since the rise of crowdfunding. In addition this research focuses on how the solicitor itself can influence helping behavior of individual potential donors. Therefore these variables will not be taken into consideration in the final conceptual model.

All success drivers used in the empirical analysis are placed in the graphical overview outlining the conceptual model, in Figure 1. They are adopted from Bendapudi et al.’s (1996) framework and are assumed to be relevant for crowdfunding projects. The independent variables are antecedent variables: image, cause of need, picture appeal, perspective
advocated, social comparisons, decisional control, labeling and request sizes. The moderating variable influences the effect of the independent variables on the dependent variables, i.e. the motives. The dependent variable measures actual donating behavior, indirectly in the form of a project’s success.

Figure 1: Conceptual model: drivers of crowdfunding success
4.4 **Operationalization of success drivers**

The nature of this research is exploratory. The challenges in crowdfunding have not yet been clearly defined. Therefore a large variety of possible success drivers are included in the conceptual model. This should lead to an indication of what the most important influencers of success are. To analyze the drivers of crowdfunding success, multiple measures were constructed to proxy the drivers outlined in the conceptual model. The measures will be estimated using statistical regression analysis. This provides the opportunity to analyze both the significance of the conceptual model as a whole and the significance of individual variables on crowdfunding success (see section 5).

4.5 **Measures**

To measure the effect of a large part of all success drivers, data directly extracted from the project pages is used. Other drivers have measures that were calculated after the data collection process was completed, using the raw data as input. In addition, part of the drivers can be measured directly whereas other drivers can only be measures by using proxies. Finally, some drivers are measured using multiple measures. The construction of the measure(s) for each driver is discussed next.

4.5.1 **Crowdfunding success**

In order not to create a bias towards projects with a small funding goal, the absolute raised amount is used as dependent variable in the final model. This makes the regression model more stable as well (see section 5). When the success ratio – i.e. raised amount divided by funding goal – would be used, projects with a small funding goal would be marked as successful more easily. In addition, the analyzed crowdfunding platform in most cases pays out the raised amount independent of whether or not the funding goal is reached. Hence, success ratio is less relevant (cf. section 4.1).

4.5.2 **Image**

The aspects that form the image of the solicitor are difficult to quantify. As a proxy for the overall credibility of a project the following proxies are used: the number of team members, number of updates the team has written during the fundraising, number of external platforms/websites the project is promoted on, the length of the project pitch text and the funding goal.
4.5.3 Cause of need
It is hypothesized that projects for good causes are more successful. Therefore the project’s main category (creative, good cause, entrepreneurial) is included as independent variable.

4.5.4 Picture appeal
To measure the effect of picture appeal the type of pitch visual, either nothing, a picture or a video, is used. Also the number of pictures and videos on the gallery page are included.

4.5.5 Perspective advocated
It was impossible to determine for every project pitch what perspective was chosen. It would be a very subjective measure and hard to quantify. Instead a sentiment analysis is conducted. Sentiment analysis searches a text for words with positive and negative emotions on document, paragraph and sentence level. These words are scored within a range from -1 to +1. The value is derived from a dictionary of phrases and their according scores. The scores are combined to come to an overall sentiment score for the whole text.\(^2\)

In addition to sentiment analysis it is possible to estimate the easiness of readability and comprehensibility of a text. The Flesch Reading Ease Score calculates the readability of a text based on the number of words per sentence and the number of syllables per word. The higher the score, the easier it is to read the text. A score between 100 and 90 indicates that the text is easily understood by an 11-year-old student. Texts with scores between 0 and 30 are best understood by university students. The formula for the Flesch Reading Ease Score is as follows (Flesch 1948, Flesch 1972):

\[
206.835 - 1.015 \frac{\text{total words}}{\text{total sentences}} - 84.6 \frac{\text{total syllables}}{\text{total words}}
\]

4.5.6 Social comparisons
Social comparisons can be made by looking at the number of donations made and by the number of comments written. These two measures are both indicators of engagement of donors with the project.

---

\(^2\) For more information on the used algorithm see: http://www.semantria.com/technology/sentiment-analysis
4.5.7 Decisional control
The category the project falls under is used as a measure of decisional control. The analysis will cover whether projects in a category with significant more projects than other categories are indeed more successful. In addition, to measure the donation aspect of decisional control, the number of donation categories of the project is used.

4.5.8 Labeling
In order to measure the effects of labeling all donation category descriptions need to be qualitatively assessed. Given the labor intensive nature of this task for this number of projects, the descriptions are only searched for the presence of certain keywords. These keywords can never cover all instances of labeling. However, given the exploratory nature of this research and extensive data set, using this approach might still provide useful insights. Not all cases of labeling might got indexed, but nevertheless results can be significant for abovementioned reasons.

To measure the effects of labeling donors with positive characteristics, all donation category descriptions are searched for these characteristics. A dichotomous variable was created in order to indicate whether at least one of the keywords was present in at least one of the donation category descriptions. The keywords that were searched for are: ‘generous’, ‘helpful’, ‘fan’, ‘contributor’, ‘donor’, ‘donator’, ‘supporter’, ‘friend’, ‘champion’ and ‘you are’ (in case people are labeled with uncommon words).

To measure the effect of thanking people the same approach was followed. Another dichotomous variable was created that indicates whether at least one of donation category descriptions contains keywords referring to thanking or gratitude. The keywords that were searched for are: ‘thank’, ‘thanks’, ‘thank you’, ‘grateful’ and ‘gratitude’.

4.5.9 Request sizes
To measure the effects of request sizes the average amount of a project’s donation category amounts are used.

Two dichotomous variables were constructed to indicate whether token helping is signaled. The amount of the lowest donation category was used to determine whether token helping is signaled. Two variables were constructed, because it is debatable what amount can still be considered as token helping. One variable uses an absolute cut off of $10, all
donations under $10 can be regarded as token helping. The other variable uses a relative cut off of 1% of the funding goal, so all amounts lower than 1% of the funding goal can be regarded as token helping. This way the cut off is more aligned with the funding goal and hence more realistic.

4.5.10 Motives

To create different indicators for motive, information of each donation to a project is used to calculate average indicators on project level. The measures are created in such a way that they reflect the average level of ‘altruisticness’ of donations. This is done because it is hypothesized that altruism changes the effect of the majority of the drivers.

The fraction of donors that list their contribution as ‘Anonymous’ and the fraction of people that list their contributed amount as ‘Anonymous’ are used. It signals that the donor is not looking for any recognition and therefore acts altruistically. Additionally the fraction of donors that chose to provide serious help, which is regarded as altruistic, is included as moderator. Because this measure is derived from the fraction of donors that only provided token help (1-fraction of token helpers), two measures for fraction of serious help are used: one with a relative and absolute cut off for the token amount (cf. request sizes).
5 Results
The analyzed dataset contains information about 8,807 projects. On average a project raised a sum of $2,851.83 ($\sigma = 4,228.83$), within a range of $25 to $84,420. The funding goal however was on average $10,436.32 ($\sigma = 61,905.73$) within a range of $500 to $5,000,000. This yielded a success ratio of 67% on average ($\sigma = 57\%$). 32% of all analyzed projects reached or exceeded their funding goal. The highest success ratio was 1,300%. This project had a goal of $1,000 but raised $13,001. On average a project had 36 donors, 5 updates, 21 comments, 3 images, 1 video and 6 donation categories.

Of all projects 29.9% has an image and 67.5% has a video as pitch visual (2.6% has no pitch visual). 67% of all projects expressed gratitude in their donation category descriptions, whereas only 44.8% used labeling of positive personality characteristics in their donation category descriptions. In addition, considered an absolute cut off of $10, 40.9% of all projects included a donation category with an amount signaling token helping. When a relative cut off of 1% of the funding goal is taken, 93% of all projects signaled token helping.

5.1 Regression model
The theoretical model is of a multiplicative form. In order to perform a linear regression analysis, the model needs to be linearized. The results can be interpreted as elasticities, i.e. the coefficients of the independent variables indicate the percentage that raised amount increases when that specific variable increases with 1%. In order to arrive at this model, continuous variables were ln-transformed by taking the natural logarithm of the original value. It has to be noted that the variable ‘number of funders’ was not found to be independent from the error term. Therefore it had to be excluded, leaving only ‘number of comments’ as measure for the success driver ‘social comparisons’. The regression equation of the base model is as follows:

\[
\frac{\text{raised}_\text{amount}}{\text{funding}_\text{goal}^\theta} = \exp(\beta_0) \cdot \exp(\beta_1 \text{funding}_\text{goal}) \cdot \exp(\beta_2 \text{Category}_\text{Creative}) \cdot \\
\exp(\beta_3 \text{Category}_\text{Entrepreneurial}) \cdot \text{sentiment}^{\beta_4} \cdot \exp(\beta_5 \text{flesch}_\text{reading}_\text{ease}) \cdot \\
\text{description}_\text{word}_\text{count}^{\beta_6} \cdot \exp(\beta_7 \text{team}_\text{members}) \cdot \text{comments}^{\beta_8} \cdot \exp(\beta_9 \text{gallery}_\text{image}) \cdot \\
\exp(\beta_{10} \text{gallery}_\text{video}) \cdot \exp(\beta_{11} \text{updates}) \cdot \exp(\beta_{12} \text{external}) \cdot \exp(\beta_{13} \text{dPitch}_\text{type}_\text{nothing}) \cdot \\
\exp(\beta_{14} \text{dPitch}_\text{type}_\text{video}) \cdot \exp(\beta_{15} \text{avg}_\text{perk}_\text{amount}) \cdot \exp(\beta_{16} \text{number}_\text{of}_\text{perks}) \cdot \\
\exp(\beta_{17} \text{token}_\text{help}_\text{signalled}_\text{relative}) \cdot \exp(\beta_{18} \text{thank}_\text{you}_\text{expressed}) \cdot \exp(\beta_{19} \text{labeling}) \cdot \\
\exp(\epsilon_i)
\]
The regression equation for the linear model is as follows:

\[
\ln(\text{raised\_amount}) = \beta_0 + (\beta_1-1)\ln(\text{funding\_goal}_i) + \beta_2\text{dCategory\_Creative} + \\
\beta_3\text{dCategory\_Entrepreneurial} + \beta_4\ln(\text{sentiment}_i) + \beta_5\ln(\text{flesch\_reading\_ease}_i) + \\
\beta_6\ln(\text{description\_word\_count}_i) + \beta_7\ln(\text{team\_members}_i) + \beta_8\ln(\text{comments}_i) + \\
\beta_9\ln(\text{gallery\_image}_i) + \beta_{10}\ln(\text{gallery\_video}_i) + \beta_{11}\ln(\text{updates}_i) + \beta_{12}\ln(\text{external}_i) + \\
\beta_{13}\ln(\text{number\_of\_perks}_i) + \beta_{14}\ln(\text{avg\_perk\_amount}) + \\
\beta_{15}\ln(\text{avg\_perk\_amount}) + \beta_{16}\ln(\text{token\_help\_signalled\_relative}) + \beta_{17}\ln(\text{thank\_you\_expressed}) + \\
\beta_{18}\ln(\text{labeling}) + \varepsilon_i
\]

5.2 Missing data

Not all data was available for all variables. The sentiment score could not be calculated for all projects. The used algorithm was not capable of calculating the score for project text with more than 65,536 characters. The score could only be calculated for 6,210 projects. For the other projects the mean score was imputed in order to not exclude these projects entirely from the dataset. In addition, for projects that don’t offer perks the average perk amount could not be calculated. In these cases an extreme low value (0.00000001) was imputed.

The natural logarithm of the value zero cannot be calculated. All zero values were replaced by a very low value: 0.00000001. This should not bias the interpretation, and make it possible to keep all projects in the dataset. Also negative values could not be ln-transformed. This concerns the variables ‘sentiment’ and ‘flesch\_reading\_ease’. The constant 1 is added up to every sentiment score. The constant 150 is added up to all Flesch Reading Ease scores. No values are now negative and all observations can be used in the analysis. The interpretation of the coefficients does not change because the same value is added to every observation.

5.3 Multicollinearity

The dataset suffers from severe multicollinearity problems. This distorts the results significantly and conclusions drawn from these results are therefore unreliable. To alleviate multicollinearity, the variables ‘sentiment’ and ‘flesch\_reading\_ease’ are mean-centered (substract the mean value of a variable of each individual value) in the base model. Mean-centered variables are indicated with the prefix ‘MC’ in table 1. In addition, to alleviate multicollinearity between the variables ‘number of perks’ and ‘average perk amount’, the variable ‘average perk amount’ was standardized – i.e. every value was divided by its
corresponding standard deviation. This was sufficient to arrive at a stable model. All variance inflation factor scores are below 2.6 for all variables in the base model.

5.4 Results base model

The base model includes all variables measuring the drivers for crowdfunding success as outlined in the conceptual model, except for moderators. The base model is kept relatively small in order to identify the most important effects. Later on the model will be expanded with moderators (see section 5.5). The details of the base model and coefficients can be found in table 1.

All the variables combined have a significant influence on the success of crowdfunding projects ($F = 142.649; p = 0.000$). The explanation power of the total model is rather low ($R^2 = 0.236$; Adjusted $R^2 = 0.234$). The goal of this research is however to get an understanding of which variables related to crowdfunding platforms can explain crowdfunding success, not so much creating a model that can accurately predict success. Most likely endogenous factors that cannot directly be measured on crowdfunding platforms play an important role as well (see suggestions for further research in section 6.3).

5.4.1 Image

In order to judge the credibility of a project the funding goal, three out of four variables are of importance: funding goal, updates and external platforms. Funding goal is the most influential variable in the model ($t = -90.506; p = 0.000$). It indicates that projects with lower goals have generally raised more money in absolute terms. People are most likely inclined to

<table>
<thead>
<tr>
<th>Table 1: Coefficients of base model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B</strong></td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>dCategory_Creative</td>
</tr>
<tr>
<td>dCategory_Entrepreneurial</td>
</tr>
<tr>
<td>LN_MC_sentiment</td>
</tr>
<tr>
<td>LN_MC_flesch_reading_ease</td>
</tr>
<tr>
<td>LN_description_word_count</td>
</tr>
<tr>
<td>LN_funding_goal</td>
</tr>
<tr>
<td>LN_team_members</td>
</tr>
<tr>
<td>LN_gallery_image</td>
</tr>
<tr>
<td>LN_gallery_video</td>
</tr>
<tr>
<td>LN_updates</td>
</tr>
<tr>
<td>LN_comments</td>
</tr>
<tr>
<td>LN_external</td>
</tr>
<tr>
<td>dPitch_type_nothing</td>
</tr>
<tr>
<td>dPitch_type_video</td>
</tr>
<tr>
<td>LN_number_of_perks</td>
</tr>
<tr>
<td>LN_avg_perk_amount_standardized</td>
</tr>
<tr>
<td>token_helping_signalled_relative</td>
</tr>
<tr>
<td>thank_you_expressed</td>
</tr>
<tr>
<td>labeling</td>
</tr>
</tbody>
</table>

$F = 142.649 (a)$

$df = 8,806$

$R^2 = .236$

Adjusted $R^2 = .234$

Dependent variable: LN_raised_amount

(a): significant at 1% level
(b): significant at 5% level
(c): significant at 10% level
donate to projects with realistic funding goals. The number of updates ($t = 5.542; p = 0.000$) and the number of team members ($t = 8.067; p = 0.000$) have a positive significant effect on project success as well. The number of external platforms the project is featured on has no significant impact ($t = 1.443; p = 0.126$).

Next to the importance of funding goal, it becomes apparent that the image of the project is mainly formed by the team composition and their activity. Multiple team members seem to convey more credibility and trust. The same can be concluded for numbers of updates. It indicates that the project initiators are serious about their project and are doing everything in their power to succeed. The insignificant effect of external platforms indicate that potential donor mainly judge the project on the crowdfunding platform itself and don’t heavily seek additional information on other websites to form their image of the project.

5.4.2 Cause of need

Analysis shows that creative projects are significantly more successful than projects for good causes ($t = 2.414; p = 0.016$). Entrepreneurial projects are however significantly less successful than projects for good causes ($t = -2.100; p = 0.036$). Hence, it cannot be said that projects for good causes are always more successful. It might be the case that, unlike for charity, there are different drivers that make people care about a project, for example innovativeness or creativeness of the project. It indicates that people that ‘caused’ their own need – i.e. came up with a good idea – actually get more funds. This is an important difference with charity projects to keep in mind when raising funds via crowdfunding.

5.4.3 Picture appeal

Showing either no pitch visual or an image as pitch visual does not significantly matter in terms of success ($t = -1.529; p = 0.126$). Showing a pitch video instead of an image is however significantly associated with higher project success ($t = 2.134; p = 0.033$). This indicates that it is better to include a pitch video instead of an image. Different information may indeed be conveyed via videos which is processed differently in the brain.

The number of pictures in the gallery has a positive significant influence on success ($t = 2.816; p = 0.005$). More pictures of the project might thus give additional information that can convince the potential donor to donate. The number of videos also has a positive significant influence on success ($t = 2.287; p = 0.022$). The effects are marginal, but it supports the findings of the pitch visuals that information conveyed via multiple modalities
indeed appeals to more people, since everyone processes information differently. A good balance between textual and audiovisual information is therefore of importance. Since the effects are not very big, too many additional pictures and videos might still cause information overload.

5.4.4 Perspective advocated

All measures that are the proxy for easiness of comprehending the textual project description have a (moderate) significant influence on the success of a project. The effect of sentiment is significant and positive ($t = 2.845; p = 0.004$). Successful projects thus have a project description with a high positive sentiment level. The Flesch Reading Ease score also has a significant effect on success. However, it seems to be that harder to read project descriptions are associated with higher success ($t = -3.159; t = 0.002$). The word count has a negative moderately significant effect on success ($t = -1.644; p = 0.100$), i.e. projects with a short description are generally more successful. This is a clear indication that the textual project description plays an important role in crowdfunding success. It is more intuitive to assume that an easier to read text yields more donations, but apparently this is not the case. A harder to read text might indicate that the project initiators are knowledgeable about their subject.

The model was tested with five alternative operationalizations of reading ease: Flesch Kincaid Grade Level, Gunning Fog Score, Coleman Liau Index, SMOG Index and Automated Readability Index. All measures showed the same effect as the Flesch Reading Ease score, but two measures failed to reach statistical significance at the standard levels (with p-values of 0.374 and 0.180). Overall it can be concluded that the reported effect of reading ease is robust.

5.4.5 Social comparisons

The number of comments has a significant effect on the success of projects ($t = 25.797; p = 0.000$). Since only one proxy is used, it is still questionable whether social comparisons indeed are of great influence. The number of comments could for example also be high because people naturally tend to engage more when projects become more successful. Therefore this finding is not necessarily a proof of the effect of social comparisons. More precise measures would be needed to further research this success driver. It does nevertheless show that high engagement of funders is associated with successful projects. Next to funding goal, this is one of the most influential variables.
5.4.6 Decisional control

The majority of projects are placed in the ‘Creative’ category (Creative: 76.2%; Good causes: 18.3%; Entrepreneurial: 5.5%). These projects are significantly more successful than projects in the category ‘Good causes’ ($t = 2.414; p = 0.016$). Projects in the category ‘Entrepreneurial’ are significantly less successful than projects in the category ‘Good causes’ ($t = -2.100; p = 0.016$). Hence, creative projects are also more successful than entrepreneurial projects. This is an indication that projects in popular categories are indeed more successful.

Drawing conclusions from these result needs to be done reservedly. Other factors than only the number of projects in a certain category might be of more influence on the amount of money raised. More research into specific subcategories would be needed in order to determine to what extent decisional control plays an important role.

Looking at the project level, it becomes clear that the number of perks has negative significant influence on success ($t = -2.050; p = 0.040$). Projects that raise the most money only have a couple of anchor points and perks. Providing decisional control on project level might thus benefit only to a certain extent. Providing too much guidance and choice might confuse a potential donor and make him indecisive. This could scare him away from making a donation.

5.4.7 Labeling

The effect of labeling is significant and has a positive influence on project success ($t = 2.487; p = 0.013$). Despite the operationalization of this measure being very rough, this finding gives a first indication that positively labeling potential donors also works for crowdfunding projects. It also gives an indication that the perk description is a justified place to put these labels. Potential donors seem to pay attention to these and are more inclined to donate when they are positively labeled.

The effect of thanking of donors is however insignificant ($t = 0.675; p = 0.500$). This is an indication that thanking potential donors or expressing gratitude before they actually donate does not raise more money. It could also be the case that using the perk descriptions for thanking is not the right method. Another place, e.g. the project description, might yield better results.
5.4.8 Request sizes

The average amount of a project’s donation categories does not have a significant effect on success ($t = -1.203; \ p = 0.229$). This indicates that the amounts of the perks do not serve as anchor points. This means that they can better reflect the monetary value of the actual perk.

Signaling token helping does have a positive effect on success however ($t = 2.266; \ p = 0.023$). Because the relative measure was used in the base model (i.e. showing a donation category with an amount lower than 1% of the funding goal is considered as signaling token help) this conclusion is only valid when the actual anchor point of the token amount is set in relation to the funding goal.

Looking at the alternative measure with absolute cut off (an amount lower than $10 is considered as token help), there is a no significant effect ($t = 1.466; \ p = 0.143$). Signaling token helping should thus always be done with the funding goal in mind. The funding goal should not be disproportionately high to the signaled amount of token help (e.g. showing a lowest anchor point of $5 at a project with a $500 goal is considered to have greater influence on success than showing a lowest anchor point of $5 at a project with a $50,000 goal).

Contrary to theory it can hence be concluded that anchor points in itself do not contribute to project success. Signaling that small donations are appreciated is however good when the lowest amount is set in relation to the funding goal. Signaling token helping thus only benefits projects with relatively small funding goals.

5.5 Moderators

To analyze whether motives of donors alter the effects of the variables in the base model, the model is extended with moderators. The measures for motive as outlined in section 4.5.10 need to be combined in order to avoid multicollinearity. The average score of all three measures for motive was therefore calculated and resulted in the new variable ‘fraction motive altruistic’. This variable was also mean centered to avoid multicollinearity. It shows the fraction of a project’s donors of a certain project that supposedly had dominantly altruistic motives to donate. This variable has a significant influence on success ($t = 4.701; \ p = 0.000$). This variable as a moderator is hence justified. To keep the model stable, only variables were analyzed that were deemed most influential and still had a significant effect on success when the moderator was entered into the model: sentiment, Flesch Reading Ease score (Perspective
advocated), number of comments (Social comparisons) and labeling (Labeling) (see table 2). The base regression model is extended as follows:

\[
\frac{\text{raised_amount}}{\text{funding_goal}} = \exp(\beta_0) \cdot \text{funding_goal}_{i}^{\beta_1} \cdot \exp(\beta_2 \text{dCategory_Creative}) \cdot \exp(\beta_3 \text{dCategory_Entrepreneurial}) \cdot \text{sentiment}_{i}^{\beta_4} \cdot \text{flesch_reading_ease}_{i}^{\beta_5} \cdot \text{description_word_count}_{i}^{\beta_6} \cdot \text{team_members}_{i}^{\beta_7} \cdot \text{comments}_{i}^{\beta_8} \cdot \text{gallery_image}_{i}^{\beta_9} \cdot \text{gallery_video}_{i}^{\beta_{10}} \cdot \text{updates}_{i}^{\beta_{11}} \cdot \text{external}_{i}^{\beta_{12}} \cdot \exp(\beta_{13} \text{dPitch_type_nothing}) \cdot \exp(\beta_{14} \text{dPitch_type_video}) \cdot \text{avg_perk_amount}_{i}^{\beta_{15}} \cdot \text{number_of_perks}_{i}^{\beta_{16}} \cdot \exp(\beta_{17} \text{token_help_signalled_relative}) \cdot \exp(\beta_{18} \text{thank_you_expressed}) \cdot \exp(\beta_{19} \text{labeling}) \cdot \frac{\text{fraction_motive_altruistic}_{i}^{\beta_{20}}} {\text{exp}(\beta_{21} \text{sentiment}_{i} \text{fraction_donation_altruistic}_{i})} \cdot \text{exp}(\beta_{22} \text{flesch_reading_ease}_{i} \text{fraction_motive_altruistic}_{i}) \cdot \text{exp}(\beta_{23} \text{comments}_{i} \text{fraction_motive_altruistic}_{i}) \cdot \text{exp}(\beta_{24} \text{average_perk_amount}_{i} \text{fraction_motive_altruistic}_{i}) \cdot \text{exp}(\beta_{25} \text{token_helping_signalled_relative}_{i} \text{fraction_motive_altruistic}_{i}) \cdot \text{exp}(\beta_{26} \text{sentiment}_{i} \text{fraction_motive_altruistic}_{i}) \cdot \text{exp}(\beta_{27} \text{flesch_reading_ease}_{i} \text{fraction_motive_altruistic}_{i}) \cdot \text{exp}(\epsilon)
\]

When this model is ln-transformed the linear regression equation becomes:

\[
\ln(\text{raised_amount}) = \beta_0 + (\beta_1 - 1)\ln(\text{funding_goal}_{i}) + \beta_2 \text{dCategory_Creative} + \beta_3 \text{dCategory_Entrepreneurial} + \beta_4 \ln(\text{sentiment}_{i}) + \beta_5 \ln(\text{flesch_reading_ease}_{i}) + \beta_6 \ln(\text{description_word_count}_{i}) + \beta_7 \ln(\text{team_members}_{i}) + \beta_8 \ln(\text{comments}_{i}) + \beta_9 \ln(\text{gallery_image}_{i}) + \beta_{10} \ln(\text{gallery_video}_{i}) + \beta_{11} \ln(\text{updates}_{i}) + \beta_{12} \ln(\text{external}_{i}) + \beta_{13} \text{dPitch_type_nothing} + \beta_{14} \text{dPitch_type_video} + \beta_{15} \ln(\text{avg_perk_amount}_{i}) + \beta_{16} \ln(\text{number_of_perks}_{i}) + \beta_{17} \text{token_help_signalled_relative} + \beta_{18} \text{thank_you_expressed} + \beta_{19} \text{labeling} + \beta_{20} \ln(\text{fraction_motive_altruistic}_{i}) + \beta_{21} \ln(\text{sentiment}_{i}) \ln(\text{fraction_donation_altruistic}_{i}) + \beta_{22} \ln(\text{flesch_reading_ease}_{i}) \ln(\text{fraction_motive_altruistic}_{i}) + \beta_{23} \ln(\text{comments}_{i}) \ln(\text{fraction_motive_altruistic}_{i}) + \beta_{24} \ln(\text{labeling}_{i}) \ln(\text{fraction_motive_altruistic}_{i}) + \epsilon
\]

Overall this model has a significant influence on crowdfunding success ($F = 116.799$; $p = 0.000$). The explanation power of the model increases as well, but not significantly.
compared to the base model ($R^2 = 0.242$; Adjusted $R^2 = 0.240$). All coefficients of this model can be found in table 2.

It has to be noted that the variable ‘number of perks’ no longer has a significant influence on success in this model ($t = -1.088; p = 0.276$). Therefore it is not analyzed whether this variable is moderated by motive. The implications of the effect of this variable drawn earlier also have to be interpreted cautiously. This is yet another indication that anchor points don’t play an important role in crowdfunding success.

**5.5.1 Results of moderators**

Only the effect of comments is significantly moderated by donor’s motive to donate ($t = -6.837; p = 0.000$). Projects with more altruistic donors have significantly fewer comments. This is an indication that altruistic people indeed purely focus on alleviating the need of the solicitor. He might be less interested in voicing his opinion or read those of others. Thus, when a potential donor has a dominantly altruistic motive for donating, he will be significantly less influenced by the number of comments that are made. This is an indication that dominantly altruistically motivated people are less prone to social comparisons effects, compared to dominantly egoistic motivated people.

Sentiment ($t = -0.528; p = 0.597$) and reading ease ($t = -0.883; p = 0.377$) are not significantly moderated by motive. Their impact should however increase when people are more altruistic. In general dominantly egoistic or altruistic people are not influenced differently by the project pitch text. The same is true for labeling. Dominantly egoistically people should be more influenced by the effects of labeling compared to dominantly altruistically motivated people, but this is not the case ($t = -0.716; p = 0.474$).

Overall it can be concluded that there is only a very small indication that people’s altruistic or egoistic motives change the effects of crowdfunding success drivers on their helping behavior. Compared to donating to charities people might have very different motives to donate, which might be difficult to plot on a scale ranging from completely altruistic to completely egoistic. People might also have other reasons to claim a perk and put their name on the funders page. More research into this behavior would be needed in order to refine the meaning of these expressions.
Table 2: Coefficients of model with moderators

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>t</th>
<th>B</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>5.064</td>
<td>53.565</td>
<td>5.079</td>
<td>53.814</td>
</tr>
<tr>
<td>dCategory_Creative</td>
<td>.073</td>
<td>3.068</td>
<td>.067</td>
<td>2.837</td>
</tr>
<tr>
<td>dCategory_Entrepreneurial</td>
<td>-.070</td>
<td>-1.685</td>
<td>-.080</td>
<td>-1.944</td>
</tr>
<tr>
<td>LN_MC_sentiment</td>
<td>.159</td>
<td>2.856</td>
<td>.151</td>
<td>2.707</td>
</tr>
<tr>
<td>LN_MC_flesch_reading_ease</td>
<td>-.383</td>
<td>-3.006</td>
<td>-.387</td>
<td>-3.013</td>
</tr>
<tr>
<td>LN_description_word_count</td>
<td>-.016</td>
<td>-1.736</td>
<td>-.017</td>
<td>-1.797</td>
</tr>
<tr>
<td>LN_funding_goal</td>
<td>.263</td>
<td>30.094</td>
<td>.259</td>
<td>29.631</td>
</tr>
<tr>
<td>LN_team_members</td>
<td>.101</td>
<td>8.138</td>
<td>.102</td>
<td>8.225</td>
</tr>
<tr>
<td>LN_galley_image</td>
<td>.003</td>
<td>2.790</td>
<td>.003</td>
<td>2.755</td>
</tr>
<tr>
<td>LN_galley_video</td>
<td>.003</td>
<td>2.485</td>
<td>.002</td>
<td>2.211</td>
</tr>
<tr>
<td>LN_updates</td>
<td>.006</td>
<td>5.723</td>
<td>.006</td>
<td>5.649</td>
</tr>
<tr>
<td>LN_comments</td>
<td>.065</td>
<td>26.122</td>
<td>.069</td>
<td>27.052</td>
</tr>
<tr>
<td>LN_external</td>
<td>.001</td>
<td>1.517</td>
<td>.002</td>
<td>1.616</td>
</tr>
<tr>
<td>dPitch_type_nothing</td>
<td>-.083</td>
<td>-1.530</td>
<td>-.077</td>
<td>-1.429</td>
</tr>
<tr>
<td>dPitch_type_video</td>
<td>.046</td>
<td>2.316</td>
<td>.046</td>
<td>2.300</td>
</tr>
<tr>
<td>LN_number_of_perks</td>
<td>-.003</td>
<td>-1.142</td>
<td>-.003</td>
<td>-1.088</td>
</tr>
<tr>
<td>LN_avg_perk_amount_standardized</td>
<td>-.005</td>
<td>-1.473</td>
<td>-.005</td>
<td>-1.470</td>
</tr>
<tr>
<td>token_helping_signalled_relative</td>
<td>.098</td>
<td>2.693</td>
<td>.104</td>
<td>2.859</td>
</tr>
<tr>
<td>thank_you_expressed</td>
<td>.018</td>
<td>.873</td>
<td>.021</td>
<td>1.013</td>
</tr>
<tr>
<td>labeling</td>
<td>.048</td>
<td>2.702</td>
<td>.046</td>
<td>2.606</td>
</tr>
<tr>
<td>LN_MC_fraction_motive_altruistic</td>
<td>.134</td>
<td>4.701</td>
<td>.239</td>
<td>5.933</td>
</tr>
<tr>
<td>LN_MC_sentiment.LN_MC_fraction_motive_altruistic</td>
<td>-.074</td>
<td>-528</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LN_MC_flesch_reading_ease.LN_MC_fraction_motive_altruistic</td>
<td>-.332</td>
<td>-883</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LN_comments.LN_MC_fraction_motive_altruistic</td>
<td>-.044</td>
<td>-6.837</td>
<td></td>
<td></td>
</tr>
<tr>
<td>labeling.LN_MC_fraction_motive_altruistic</td>
<td>-.036</td>
<td>-716</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>136.946</td>
<td></td>
<td>116.799</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>8,806</td>
<td></td>
<td>8,806</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.238</td>
<td></td>
<td>.242</td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.236</td>
<td></td>
<td>.240</td>
<td></td>
</tr>
</tbody>
</table>

*Dependent variable: LN_raised_amount

(a): significant at 1% level
(b): significant at 5% level
(c): significant at 10% level
6 Conclusion

While acquiring traditional funding, such as bank loans or venture capital, for innovative new ventures becomes increasingly harder, crowdfunding is gaining in popularity. This alternative method of fundraising solicits to an unknown large group of people – the crowd – for many relative small donations that together form a budget high enough to execute one’s project. Crowdfunding is becoming a popular method for particularly projects in the creative industries, for good causes and entrepreneurial startups. For these kinds of projects donors do usually not receive ownership or profit shares in return for their donation. Therefore donations to these crowdfunding projects can be regarded as gifts.

As crowdfunding is used more and more, it becomes valuable to know what important drivers of success are. By adapting Bendapudi et al.’s (1996) framework for enhancing helping behavior towards charitable organizations, the most important marketing techniques to maximize donations to crowdfunding projects are identified in this research. Three different aspects of a crowdfunding project are analyzed: the overall image of the source (the project itself and its initiators), the message (the project pitch) and the request for help (the solicitation for funds). Also the motive of donors for donating is taken into account.

8,807 projects on crowdfunding platform IndieGoGo have been analyzed. 8 different success drivers are measured by data of multiple variables extracted from finished crowdfunding projects. Also the sentiment and readability ease of each project pitch text is calculated and used in this analysis.

The funding goal is the heaviest influencer of crowdfunding success. It can be intuitively understood that funding goal highly correlates with the actual amount raised. It therefore shows that the model is in fact robust. The number of comments, which is an indication of social influence and engagement, is the second largest influencer of success. It should come as no surprise that creating engagement with donors is essential in bringing a crowdfunding project to a successful end.

What is more interesting to see is that project success is directly associated with a short but positive project pitch. When the pitch has a positive sentiment, the reading ease of the text is of less importance. In addition, audiovisual cues definitely support the textual message. Adding a pitch video next to the pitch text conveys the pitch in a different modality.
This seems to be the optimal way of communicating the project pitch on the crowdfunding platform. Projects with a picture as pitch visual or no pitch visual all were significantly less successful.

Credibility of projects generally increases when there is a team of multiple project initiators. It is important that they publish updates during the fundraising period in order to sustain this credibility. To persuade potential donors, the tactic of labeling can be used: label the potential donor by using positive characteristics in the perk descriptions. Mention for example that they are generous or kind when they donate. Signaling token help is another way to increase the number of donations. It shows that small donations also are appreciated. This works best for projects with a relatively small funding goal. Setting up many anchor points however is found to be counter effective.

Motives of potential donors, on a continuum of dominantly egoistic to dominantly altruistic, only very moderately moderates the effects of significant success drivers. Results show not enough evidence to be able to conclude that people’s altruistic or egoistic motive play a very important part in crowdfunding success.

From a theoretical perspective it can be concluded that indeed a majority of the effects of antecedent success drivers as outlined in Bendapudi et al’s (1996) framework also hold for crowdfunding projects. The most important success drivers are ‘Perspective advocated’, ‘Picture appeal’ and ‘Image’.

### 6.1 Managerial implications

Crowdfunding is a very good alternative to traditional fundraising. People that are considering running a crowdfunding campaign should nevertheless realize that this is not an easy task. In order to be successful, the campaign has to be carefully designed upfront and executed with a lot of dedication. Still generally only relatively small amounts are raised, which makes crowdfunding less attractive for bigger or more mature organizations, if their goal is solely to seek funding. In addition, traditional funding methods often provide access to other benefits next to funds, such as advice from experts or access to a business network. This is less likely to happen when crowdfunding is used and could be a disadvantage.

Crowdfunding is particularly suited for entrepreneurial projects that are in the very first phase of their existence. Crowdfunded projects on average manage to raise $2,500 to
$3,500, which can provide a starting point to prove their viability. If ventures are getting more successful over time, more traditional funding, such as venture capital, would nevertheless still be needed to transform a small scale project into a mature business.

If crowdfunding is chosen as fundraising method, marketing techniques that can be exploited on crowdfunding platforms can very well help to influence the willingness to donate. This should consequently increase a project’s raised amount above average, even if the project does not especially stand out. Most attention needs to be paid to the project pitch. The textual description should be short and convey a positive message. On average a project description has 577 words. Next to this, creating a pitch video and several additional images and videos for the gallery are important to convey a credible message. Lastly, the funding goal and donation categories have to be chosen carefully. It is seen that the funding goal in most cases lies slightly higher than the amount that is actually raised. Therefore, in order to reach the average amount between $2,500-$3,500, setting a funding goal of e.g. $4,000-$4,500 would be optimal. Signaling token helping is also advised if the funding goal is within this range. Labeling potential donors with positive characteristics in the perk description is an easy way of psychologically influence potential donors and should not be forgotten.

Of course there is no ideal or average crowdfunding project. The drivers for crowdfunding success should always be configured in such a way that they support the actual content of the project. Nevertheless, this research points out what project initiators can expect when they start a crowdfunding project that does not particularly stand out. There are projects that were very successful in raising funds and exceeded their funding goal up to 10 times. There are however lots of projects started every day. To stand out, one’s project needs to be really innovative, unique or amiable. Other marketing techniques, e.g. viral marketing, can only flourish when projects have such characteristics. Only in those cases crowdfunding has the potential to raise an enormous amount. The optimization of the analyzed success drivers in this research is therefore not sufficient to lead to huge success. The results nevertheless show that potential donors indeed pay attention to various characteristics present at every project. If a project is not sincere, people will directly discover this. Cheating becomes therefore very hard.

Crowdfunding platforms in turn should facilitate and guide project initiators in such a way that they can easily optimize the success drivers. Platforms should provide advice on how
to write project pitches, make videos and how to configure donation categories. They could also implement algorithms to automatically analyze pitches in terms of word count, sentiment and readability.

6.2 Limitations
This research is an explorative study of drivers of crowdfunding success. Due to the large sample size results can be regarded as reliable. Nevertheless the data is sampled from one platform only. Generalizing the conclusions over multiple platforms therefore needs to be done with caution. Crowdfunding platforms very much look alike, but there are also subtle differences among them, e.g. in payout policy or awarding of perks. Some crowdfunding platforms only pay out the raised amount to the project initiators once the funding goal is met or exceeded. In addition, some crowdfunding platforms, especially those based out of the US, provide ownership or profit shares to project funders. These differences in setup may alter the effects of the drivers for success.

Because of the newness of crowdfunding, this research has attempted to examine a broad range of possible drivers for success. This has resulted in an extensive conceptual model where drivers could only be analyzed in a quantified form. This has resulted in different proxies that only can provide a rough measure for the drivers. If in depth research would be done on specific part of a crowdfunding project, further development of measures would definitely be necessary.

6.3 Further research
One of the reasons for the limited generalizability of this study is the chosen perspective. Comparing donations to crowdfunding projects with donations to charities may narrow the range of aspects getting analyzed. In further research it would be advisable to take other motives for contributing into account. An alternative driver for donating could for example be the possibility of pre-ordering the end result or product of an innovative project (Kappel 2008). In such cases, attention should be paid to the monetary value of the chosen perk compared to the donor's donated amount. If this is in line, it is questionable whether donations can still be regarded as gifts.

The options of extending this research while keeping the perspective of charitable donations are nevertheless plentiful. Given the influence of the project and donation category...
descriptions, a more in depth text analysis could be done in order to get a better understanding of textual elements that lead to success. Next to this, the level of analysis could be shifted from project to donor in order to analyze (actual) donor behavior more in depth. In order to understand motives more in depth, actual donors could be questioned.

To get a better understanding of donating behavior, donations could also be analyzed over time. Analyzing projects from start to end would provide insight into when most donations are made. This could unveil a tipping point from where on it is almost certain that a project will reach its funding goal. This could show until what point only people within the ‘inner circle’ (e.g. friends and family) of the project initiators donate and from where on ‘the crowd’ (i.e. really unknown people) starts donating. Only if projects make it to the latter stage, the full potential of the crowd is unleashed and projects can become really successful. Also the runtime of a project could be of influence on success, a variable that is not used in this research. Complementary to this, platform endogenous drivers could be examined more closely, such as the effect of featuring and promoting projects on external (social media) platforms and the effects of viral marketing.
7 Bibliography


Zhang, J. and P. Liu (2011) 'Rational Herding in Microloan Markets'.


8 Appendices

8.1 Appendix A: List of variables

IMAGE

- team_members - number of project initiators
- updates - number of updates
- external - number of external websites project is featured on
- funding_goal - funding goal set at start of project

CAUSE OF NEED

- dCategory_Creative - dummy category Creative
- dCategory_GoodCause - dummy category Good Cause
- dCategory_Entrepreneurial - dummy category Entrepreneurial

PICTURE APPEAL

- dPitch_type_nothing - dummy pitch visual nothing
- dPitch_type_image - dummy pitch visual image
- dPitch_type_video - dummy pitch visual video
- gallery_image - number of images in gallery
- gallery_video - number of videos in gallery

PERSPECTIVE ADVOCATED (moderated by motive)

- sentiment - sentiment score of project description
- flesch_reading_ease - Flesch Reading Ease score of project description (readability measure)
- description_word_count - number of words in project description

SOCIAL COMPARISONS (moderated by motive)

- comments - number of comments
DECISIONAL CONTROL (moderated by motive)

- dCategory_Creative - dummy category Creative
- dCategory_GoodCause - dummy category Good Cause
- dCategory_Entrepreneurial - dummy category Entrepreneurial
- number_of_perks - number of donation categories

LABELING (moderated by motive)

- thank_you_expressed - in donation category descriptions donor is thanked
- labeling - in donation category descriptions donor is positively labeled

REQUEST SIZES (moderated by motive)

- avg_perk_amount - average amount of donation categories
- token_help_signalled_relative - lowest donation category has a token amount using relative cut off (1% of funding goal)
- token_help_signalled_absolute - lowest donation category has a token amount using absolute cut off (<$10)

MOTIVE

- fraction_name_anonymous - fraction of donors listed as anonymous
- fraction_donation_anonymous - fraction of donated amount listed as anonymous
- fraction_serious_help_relative - fraction of donors provided serious help (using relative cut off)
- fraction_motive_altruistic - the average of fraction_name_anonymous, fraction_donation_anonymous and fraction_serious_help_relative

DEPENDENT VARIABLES

- raised_amount - total amount donated by donors
Appendix B: Example of IndieGoGo project pages

Figure 2: Project pitch page
Figure 3: Funders page
Figure 4: Gallery page