



UNIVERSITETET I AGDER

# Perceptions of Crowdfunding Campaigns and Performance

An Empirical Analysis

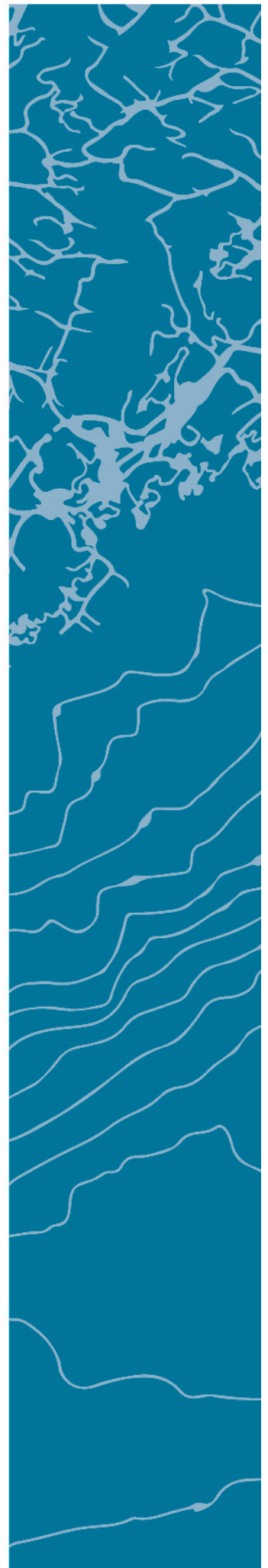
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## Acknowledgements

Several people have contributed to this thesis and been a valuable source of support and advice.

Firstly, I would like to thank my supervisor, Professor Rotem Shneur, for using his time to give me inputs and comments despite having a busy schedule. His feedback has guided me throughout the process. By expressing his interest in the subject, he has also motivated me to do my best in writing an interesting paper.

I also thank my boyfriend who have been both patient and encouraging these last months. Furthermore, I thank my parents for their endless support.

Finally, I thank all the business students who took their time to answer my survey, supplying me with the valuable data needed to address my research question.

Mia Charlotte Harboe

Oslo, May 2017

## Forewords

Crowdfunding is a topic which relatively few studies have examined. Therefore, in my search for a subject that gave me the opportunity to contribute to something new, crowdfunding seemed like a suitable theme for my master thesis. I wanted my thesis to be useful and that it could contribute to more understanding of this relatively new concept.

By studying crowdfunding, I have got the chance to research a topic which relatively few have sufficient knowledge about. This has challenged me to learn others about what crowdfunding is and how to use it. During the process, I have got the opportunity to present crowdfunding at a meeting with representatives for a project group with volunteering organizations, and to be invited as part of a project group to discuss how to best teach women about the prosperity of crowdfunding. Opportunities I probably would not have got if I had chosen differently.

I strongly believe that numerous people have good ideas, but limited means to make them realities. Crowdfunding is one alternative way of launching ideas, and hopefully this concept can be exploited to start up more projects and ventures.

In addition to helping entrepreneurs and ordinary people launch innovative ideas, crowdfunding can be a solution for more suppressing issues in the world. Poverty and gender inequality can possibly be decreased due to this financing method, which is further described in the reflection paper in Appendix 3. However, one challenge with crowdfunding is how to create a campaign that attracts sufficient funders. It is this challenge I will investigate in this thesis.

## Abstract

Crowdfunding gives entrepreneurs and others, opportunities to get financial contributions to their projects as well as acknowledgements and insight to consumers' preferences. This thesis focuses on reward-based crowdfunding and aims to explain why some campaigns perform better than others. The data set only includes campaigns with less than 50% of funding received and relatively small funds raised. By only analyzing campaigns with low performance, this study can be helpful for campaigners that opt for a "keep what you raise" campaign strategy, compared to "all-or-nothing" campaigns that have been studied thus far.

Logistic regression is used to find the relationship between seven independent variables and performance of campaigns - both on the performance rate and the sum raised. Reward quality and environmental orientation were partly found to have a significantly influence on the performance of campaigns. Nevertheless, the most important finding might be that few factors had significant impact on predicting differences in performance between the crowdfunding campaigns studied. Hence, the complexity of making a campaign that performs better than others is emphasized.

In contrast to previous studies, which mostly have used official data from crowdfunding platforms, I have collected people's perceptions of crowdfunding campaigns as the basis for analysis. Moreover, this thesis introduces the concepts of logos and pathos in relation to crowdfunding. Further studies may confirm whether these concepts influence the performance of crowdfunding campaigns.

Generally, this study highlights the effort required by people that want to initiate a crowdfunding campaign. Entrepreneurs and others must be aware that crowdfunding is a complex activity that requires extensive work beyond making a sufficient campaign page on a crowdfunding platform.

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# 1 Introduction

In 2015, the global crowdfunding volume exceeded EUR 90 billion (Zhang et. al., 2016), and there are several examples of crowdfunding success (e.g. Nysveen, 2016, 27.11). However, on one of the best-known crowdfunding platforms, Kickstarter.com, 60% of projects are unsuccessfully funded (Kickstarter, 2017c). This thesis aims to improve entrepreneurs' and others' understanding of what crowdfunding is, and how they can use the opportunity crowdfunding gives to implement new ideas. Specifically, the purpose of this study is to explain why some crowdfunding campaigns perform better than others.

Due to limitations of the data set, only crowdfunding campaigns with performance rates less than 50%, and relatively low sums of money raised, are studied. However, studying why some campaigns perform better among low-performing campaigns can be helpful for campaigners that may opt for a “keep what you raise” campaign strategy, compared to “all-or-nothing” campaigns that have been studied thus far (e.g. Mollick, 2014; Koch and Siering, 2015; Calic and Mosakowski, 2016).

In recent years, crowdfunding has emerged as a valuable source of financing for entrepreneurs, artists, social activists and others seeking capital for their projects or ventures (Belleflamme, Lamber, Schwienbacher, 2014; Mollick, 2014). For entrepreneurs, crowdfunding represents an opportunity to implement their ideas despite not having access to sufficient monetary resources through traditional financial intermediaries like banks and venture capitalists (Mollick, 2014). In addition to monetary resources, entrepreneurs may require external support on how to run their company (Scwienbacher and Larralde, 2010). Normally, external support is provided by business angels or venture capital funds, but Schwienbacher and Larralde (2010) argue that the wisdom of the crowd can at times be more efficient than individuals or teams in solving corporate problems.

Crowdfunding is a relatively new topic in academia. When studying crowdfunding campaigns' performance, previous research has primarily focused on the characteristics of campaigners (Frydrych, Bock, Kinder and Koeck, 2014; Davis, Hmieleski, Webb and Coombs, 2017), features of the crowdfunding platform used (Ward and Ramachandran, 2010; Kuppuswamy and Bayus, 2015) or other factors not necessarily influenced by the campaigners. Consequently, entrepreneurs and others are left with few guidelines to indicate



how to create a campaign that performs well. What remains unanswered is which factors are important in *making* a crowdfunding campaign that performs better than others.

Most of the previous studies are based on crowdfunding campaigns from the United States of America (US), and few studies examine if it is a difference in performance between campaigns from different nations. I will address this gap by collecting both US-based and European-based crowdfunding campaigns, and examine if it is any difference in performance level based on the origin of the campaigns.

This study contributes to crowdfunding research by being one of the first to collect people's perceptions of crowdfunding campaigns as the basis for analysis. I draw from the theory of online consumer behaviour and collect students' assessments of live crowdfunding campaigns as the basis for analysing which factors influence crowdfunding performance – both the performance rate and the sum raised. The final data set includes 182 assessments of 96 campaigns, where all the campaigns used in the analyses had performance rates less than 50%. By analysing only campaigns with low performance, this study might offer valuable insight to why a majority of crowdfunding campaigns fail as compared to other researchers that have found why some might succeed.

To analyse the relationship between the assessments and the performance of campaigns, I use two logistic regression models. Of the seven hypotheses studied, none of them were fully supported. Environmental orientation was found to significantly influence the performance rate, but no such relationship was found with the sum raised. Reward quality was found to have a significant influence on the sum raised, but not on the performance rate. Creativity, logos, pathos, campaign quality, and social orientation did not show any significant relationship to neither of the dependent variables. The results may indicate that there are other, more important, aspects of crowdfunding that influence the performance of crowdfunding campaigns. Furthermore, as neither of the hypotheses were fully supported, the complexity of making a successful crowdfunding campaign is emphasized.

The remainder of this paper is organized as follows. First, I will explain what crowdfunding is, the industry today and opportunities and challenges for the future. Secondly, a literature review of current research in crowdfunding is presented, including an examination of how the theory of online consumer behaviour can help entrepreneurs in creating successful campaigns.

From there, I present the research model, before I explain the data and methodology used to analyse the variables described. Finally, I discuss the findings and draw some implications for further research and practice.

## 2 Relevance

Crowdfunding is an alternative way of raising money for a project or venture (Belleflamme et. al., 2014; Mollick, 2014; Shneor and Flåten, 2015). The concept can be related to the megatrends of the sharing economy and the emerge of new financial technologies – it is a way of allowing all members of the society to have a say in both the funding and development of future projects and ventures through new financial technology (Mollick, 2014; Shneor and Flåten, 2015). Crowdfunding democratizes finance globally by letting the “ordinary” crowd get more closely involved in projects and ventures, as active consumers, investors or both (Belleflamme et. al., 2014).

Despite significant growth in crowdfunding from its emergence in 2009 (Zhang et. al., 2016), regulation in most countries has struggled to keep up with the new development, its opportunities, and challenges. Today, regulatory barriers present some of the main obstacles in facilitating growth of the crowdfunding market, including in the Nordic countries (Kreutzer, 2016, 03.10; Shneor and Aas, 2016). Nevertheless, experts in the field expects crowdfunding to continue its growth and importance in years to come (Assenova et. al., 2016).

In this chapter, the concept of crowdfunding is presented as follows. First, this thesis examines different definitions of crowdfunding and the alternative types of crowdfunding in today’s environment. Next, the background for why and how the crowdfunding industry has emerged is presented. Lastly, the potential of crowdfunding in the future is assessed, especially the potential for Norwegian crowdfunding initiatives.

## 2.1 Definition of Crowdfunding

The concept of crowdfunding is relatively new in research, and is derived from two existing concepts; crowdsourcing and microfinance (Mollick, 2014). Crowdsourcing has been defined by Poetz and Schreier (2012, p. 246) as the concept of outsourcing the phase of idea generation to a potentially large and unknown population, referred to as the “crowd”, in the form of an open call. Microfinance can be understood as small loans from several people to one cause or individual (Morduch, 1999).

The European Commission (2016) distinguishes crowdfunding as many small sums from a large group of individuals. By that definition, the concept of crowdfunding has been present for several decades and even begging on the street can be seen as a sort of crowdfunding initiative. However, in this context, crowdfunding is a more professional term of raising money. The emerge of the internet has made it possible to reach more people for attracting financial support, and the internet is a crucial part of what is known as crowdfunding today (Mollick, 2014).

Mollick (2014) defines crowdfunding as *the efforts by entrepreneurial individuals and groups – cultural, social, and for-profit – to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the internet, without standard financial intermediaries* (p. 2). I find three parts of this definition problematic. Firstly, Mollick (2014) uses the terms “entrepreneurial” and “ventures” to describe crowdfunding. However, at Kickstarter.com (2017a) it is stated that everything on Kickstarter must be a project. Further, a project is described as something with a clear goal, which eventually will be completed and something will be produced (Kickstarter.com, 2017a). By that definition, crowdfunding does not necessarily include entrepreneurship or ventures.

Secondly, Mollick (2014) defines crowdfunding as something only individuals and groups pursue. However, organizations could also initiate crowdfunding campaigns to draw additional resources to a specific project within their organization, as done by Architects Without Borders on the Norwegian crowdfunding platform Bidra.no (Bidra.no, 2017).

Lastly, Mollick’s (2014) definition uses the term *without standard financial intermediaries*. Based on this definition, banks and other traditional sources of finance are seen as static and standard financial intermediaries are perceived to only use standard financial methods.

However, standard financial intermediaries might operate using alternative financing methods. Several banks have seen the value of crowdfunding (DNB, 2017; SpareBank 1, 2017; Nordea, 2016, 27.04). Nordea has initiated their own crowdfunding platform in Finland (Nordea, 2016, 27.04). However, this initiative is limited to customers of Nordea, hence can be perceived only to partly relate to crowdfunding since most of “the crowd” are not granted access. Another example is “Spleis” by SpareBank 1, where people can use their website as a facilitator to collect money to different projects (SpareBank 1, 2017). Based on these examples, one might argue that what is defined as standard financial intermediaries today will be present in the crowdfunding industry in the future. Therefore, it is recommended that Mollick (2014) change the term “standard financial intermediaries” to “traditional financial methods”, reflecting the true meaning of the concept.

Based on the previous literature on the topic and the discussion of how crowdfunding might be shaped in the future, this thesis defines crowdfunding as the following:

*The initiative by individuals, groups or organizations to attract relatively small financial contributions from a relatively large number of individuals using the internet, with the possibility for all internet users to contribute to the initiative.*

This is a sufficiently broad definition to include the different types of crowdfunding initiatives existing today.

Even though crowdfunding is defined as a way of attracting financial contributions, it is important to understand that crowdfunding provides benefits beyond the money itself. Through crowdfunding, entrepreneurs can get access to customers, press, employees and outside funders (Mollick and Kuppuswamy, 2014), as well as access to feedback which potentially strengthens the entrepreneur’s commitment to the idea (Gerber, Hui and Kuo, 2012).

### 2.1.1 The Different Types of Crowdfunding

Crowdfunding can be divided into four broad categories (Harrison, 2013):

- 1) Donation-based
- 2) Reward-based,
- 3) Peer-to-peer lending
- 4) Equity-based.

The donation-based model is used when the funder is giving money to the project without getting anything in return for their investment (Harrison, 2013). For this type of crowdfunding model, “charity”, “health and social work”, and “community and social enterprises” are the most funded sectors (Zhang et. al., 2016). Because there is no expectation of financial or material returns (Garvey et. al., 2017), this model is most suitable for projects where funders are motivated by contributing to the cause itself (Gerber and Hui, 2013).

The reward-based model is used when the supporters of a project get a reward (e.g. a t-shirt, button or public acknowledgement) in exchange for their funding to the project (Harrison, 2013). Included in the reward-based model is pre-purchasing, where supporters that fund the project get the product or service the crowdfunding project is attracting funding to in return for their contribution (Harrison, 2013). The biggest advantage of the pre-purchasing part of crowdfunding is that it gives the creator of the crowdfunding campaign an indication of how many people are interested in purchasing the product or service after it is launched. This was found to be one of the main motivations reported by creators of reward-based crowdfunding campaigns (Gerber and Hui, 2013). Based on numbers from 2015, the most funded sectors using reward-based models were “art, music and design”, “film and entertainment”, and “media and publishing” (Zhang et. al., 2016).

Peer-to-peer lending relates to loans between individuals and the entrepreneur(s) or between businesses (Harrison, 2013). It can also be referred to as loan-based crowdfunding (Garvey et. al., 2017). In this case, the funder expects some financial return (Garvey et. al., 2017), typically as interest on the amount of loan given.

The last model of crowdfunding is equity-based crowdfunding. By using the equity model, entrepreneurs offer investors or funders a stake in the business or a share of the profit stream in exchange for their monetary contribution to the project or venture (Harrison, 2013). Both

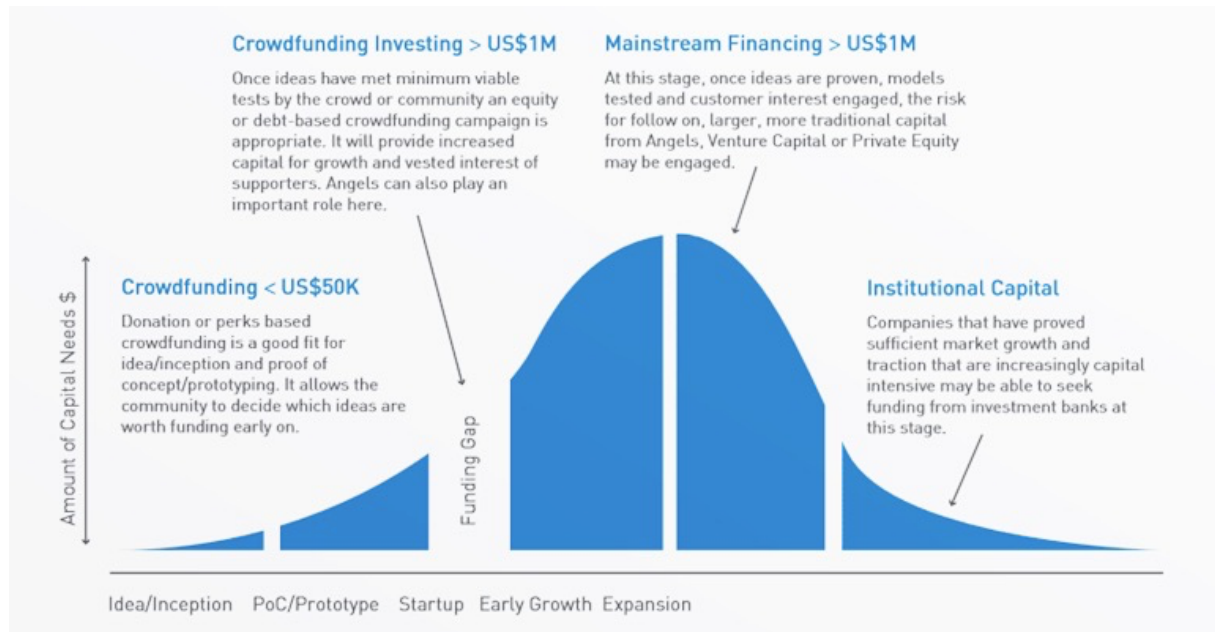
equity-based and lending-based crowdfunding typically require more laws and regulations than the first two models of crowdfunding where funders do not expect any financial return on their investment. Based on the Norwegian law of security trading, the opportunity of equity-based crowdfunding in Norway is limited (Verdipapirhandelloven, 2007). However, based on a written document of a discussion between industry experts (Assenova et. al., 2016), policy makers are expected to open the economy for both lending- and equity-based models in coming years.

This thesis focuses on reward-based crowdfunding as this model of crowdfunding is a more stable construct in the academic literature. In addition, in the Norwegian context, reward-based crowdfunding is the construct that is mostly used by entrepreneurs and funders (Zhang et. al., 2016). Further discussions are presented for why reward-based crowdfunding is found to be appropriate for this study.

## 2.2 Emergence of Crowdfunding

From idea to start-up to growing the business, entrepreneurs need capital to move to the next phase. The financial growth cycle of small businesses was first developed by Berger and Udell (1998) as a framework for capital needs in the development of small business ventures. They found small businesses to have different financial needs in the different phases of business development (Berger and Udell, 1998). This model was established before the concept of crowdfunding existed, hence crowdfunding is not mentioned by Berger and Udell (1998) as a financial alternative between any stages in the model. However, The World Bank (2013) has used the financial growth cycle to generate a more suitable figure in the crowdfunding context. Figure 1 describes the capital requirement for each stage in the financial growth cycle and how crowdfunding alternatives can be used to match the capital need for each phase of development (The World Bank, 2013).

Figure 1: The Financial Growth Cycle



Source: The World Bank, 2013.

In the idea and prototype phases, there are no track records to confirm how the firm performs and little information to assess the future performance of the venture (Berger and Udell, 1998). Consequently, external finance is difficult to obtain. Therefore, entrepreneurs must often use their own capital or ask family and friends to raise starting capital for their business idea (Berger and Udell, 1998; Hui, Greenberg and Gerber, 2014). Alternatively, the initial stages of the financial growth cycle can be financed through crowdfunding initiatives (The World Bank, 2013). By using crowdfunding, the entrepreneur allows the “crowd” (the society) to decide which ideas are worth funding. If the crowdfunding initiative is successful, it legitimizes the idea for both the entrepreneur and external stakeholders (Agrawal, Catalini, and Goldfarb, 2011), hence other external financing alternatives might be attracted to the idea. Effectively, crowdfunding at an initial stage might attract both monetary resources from the crowd and additional funding from more traditional financial sources.

The phase between start-up and early growth is arguably the most challenging for entrepreneurs (The World Bank, 2013; Shneor and Flåten, 2015). It is often a critical amount of capital needed to further develop the idea into a business, and at this stage the entrepreneur often lacks the capital himself and has already asked family and friends to contribute (Hui et al., 2014). Since the business does not have any record to show to it is also difficult to get funding from traditional financing alternatives like venture capitalists or financial institutions

(Berger and Udell, 1998). This critical stage is described by The World Bank (2013) as the funding gap. The new types of crowdfunding, debt- and equity-based, are perceived to be appropriate methods to close this gap for entrepreneurs (The World Bank, 2013).

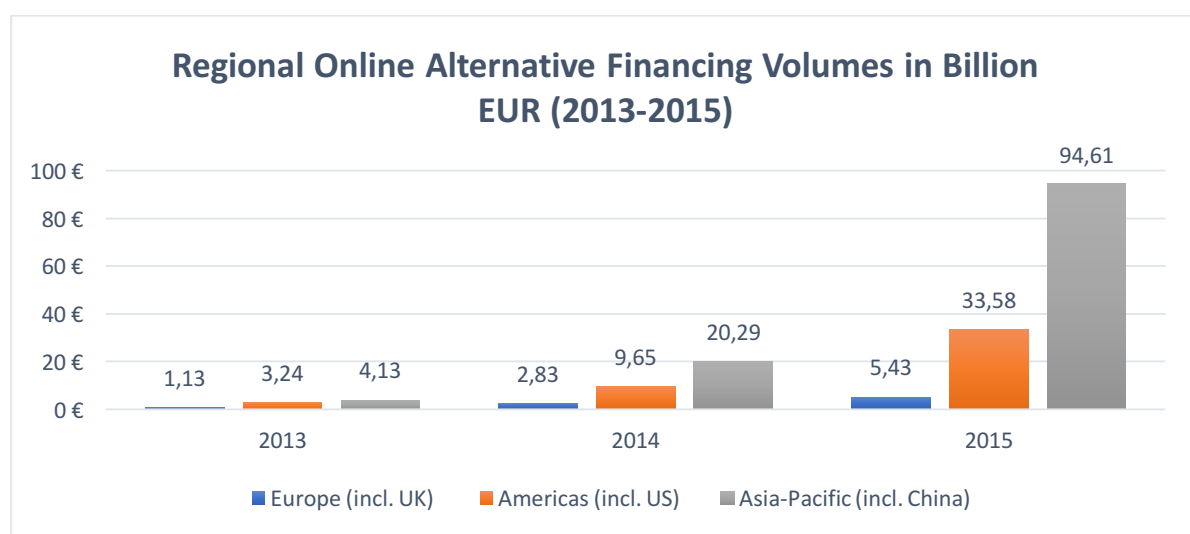
Nevertheless, reward-based crowdfunding can also be used at this stage of the funding process, depending on the goal and perspective of the entrepreneurs. Also, if the entrepreneur has used crowdfunding at earlier stages of the financial growth cycle, a successful crowdfunding campaign might attract standard financial intermediates at this stage of the financial growth cycle, since the firm already have proof of concept (Agrawal et. al., 2011).

As described, this thesis focuses on reward-based crowdfunding, hence has an emphasis on the phases of idea and prototype.

### 2.3 The Crowdfunding Industry Today

In 2015, the global crowdfunding volume exceeded EUR 90 billion, whereas EUR 5.5 billion can be associated with crowdfunding in Europe (Zhang et. al., 2016). Globally, crowdfunding volumes have increased dramatically in recent years; as one can see from Figure 2, the funding volume in the Americas have increased tenfold, while the Asia-Pacific volumes in 2015 are over 20 times as high as in 2013 (Zhang et. al., 2016). For Europe, the crowdfunding volume in 2015 was five times as high as two years before (Zhang et. al., 2016). These volumes are expected to continue to grow in the future (Assenova et. al., 2016).

Figure 2: Regional Financing Volumes (2013-2015)



Source: Zhang et. al., 2016.



In the European market, EUR 536 million was raised by small enterprises already operating, providing capital to 9,442 businesses within Europe in 2015 (Zhang et. al., 2016). According to numbers retrieved from crowdsurfer.com (2017), the Norwegian platform Bidra.no accounted for 74 fully funded campaigns in 2016. Even though these numbers are small compared to other countries and regions, for the companies and entrepreneurs that receive the funding it might be the difference between failure and a chance of launching their idea to the public (Berger and Udell, 1998; The World Bank, 2013).

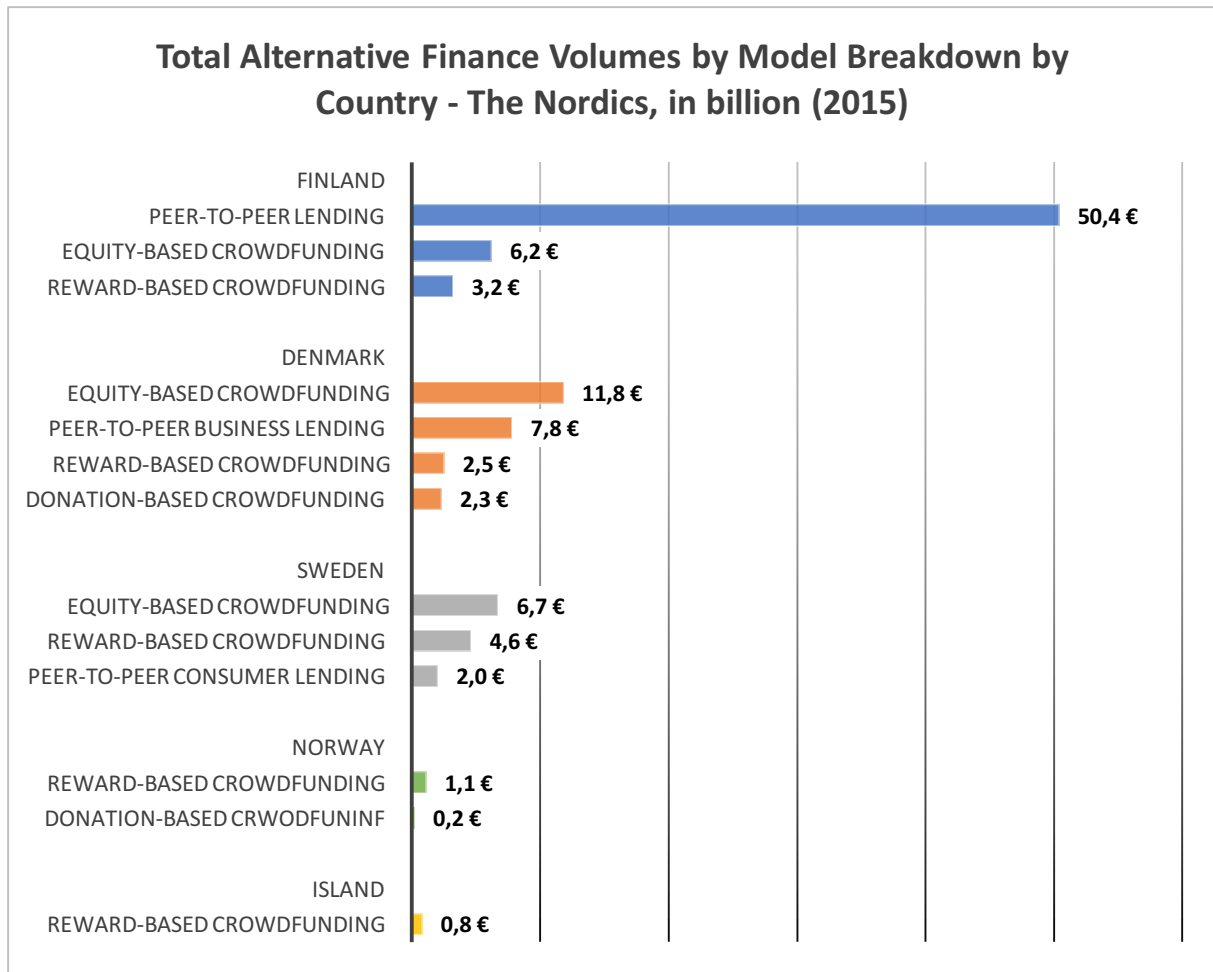
Several entrepreneurs from Europe choose to use platforms based in the US when launching crowdfunding campaigns, as these platforms often have a broader user base (Ingram, Teigland and Vaast, 2014). Consequently, crowdfunding may have larger effects for European entrepreneurs than what is reflected in the numbers above. For example, it is estimated that Nordic entrepreneurs have raised about EUR 15 million using global crowdfunding platforms (Shneor and Aas, 2016). The Norwegian start-up FlowMotion is the most recent example of a successful Norwegian crowdfunding initiative on the US-based platform Kickstarter (Nysveen, 2016, 27.11).

## 2.4 Potential for Crowdfunding in the Future

As an example of the potential for crowdfunding in the future, the potential for crowdfunding in the Norwegian context is examined.

According to the initiator of the Nordic Crowdfunding Alliance, Dr. Rotem Shneor, who presented at a crowdfunding seminar February 8<sup>th</sup>, 2017, Norway has a great potential for crowdfunding. Norwegians are one of the most trusting populations among the European OECD countries (OECD, 2016), have a high average income of NOK 43,400 per month (Statistics Norway, 2016a), and one of the highest internet adoption rates in the world with 96.8% of the population using the internet (The World Bank, 2017), all factors that give a favourable environment for crowdfunding. However, among the Nordic countries, Norway has the second smallest crowdfunding volume with Finland's volume almost fifty times as big (Zhang et. al., 2016). As seen in Figure 3, the main difference between the Nordic countries is the extent to which Finland, Denmark, and Sweden have introduced peer-to-peer lending and equity-based crowdfunding models.

Figure 3: Crowdfunding Volumes by Model Breakdown by Country – The Nordics



Source: Zhang et. al., 2016.

Because of regulatory barriers, Norway has limited opportunities for equity- and lending-based platforms. Investor is the only platform today with a Mifid licence, which is recognized by the Norwegian financial authorities as a legal provider of shares (Verdipapirhandelloven, 2007). However, there are some equity-based alternatives which operate in the grey area of the law (Tobiassen, 2016). Until the beginning of March 2016, EUR 138,000 had been collected through equity-based crowdfunding in Norway (Tobiassen, 2016). Moreover, Dr. Rotem Shneor (at a presentation the 8<sup>th</sup> of February 2017) states that equity volumes in Norway have come close to EUR 1 million in 2016 – an indication of the potential of such crowdfunding model might have if the regulatory barriers are reduced.

Idar Kreutzer, the CEO of Finance Norway, sees missing regulations for crowdfunding as a barrier for further development of the concept in Norway (Kreutzer, 2016, 03.11). The

European Union (EU) is not expected to develop any rules or regulations at this point, and the Norwegian government has been passive when it comes to changing the laws and regulations to better fit a crowdfunding context (Shneor and Aas, 2016). The passiveness shown by the EU and the Norwegian government might partly relate to a worry that crowdfunding might reduce protection of consumers, and partly relate to the limited knowledge of the concept (Shneor and Aas, 2016). As stated, this thesis aims to improve the understanding of both entrepreneurs and others of what crowdfunding is and how to use it.

The regulators in each country should see crowdfunding as an opportunity to deal with challenges of unemployment and inequality. When analysing the long-term effect of successful campaigns on Kickstarter, Mollick (2016) found that between the start of Kickstarter in April 2009 and May 2015, crowdfunding projects resulted in about 5,153 ongoing full-time jobs, besides those that went to creators. It also led to the hiring of 160,425 temporary workers (Mollick, 2014). Promoting crowdfunding can thereby be a good alternative for governments to deal with the challenge of unemployment, and create additional jobs in the future.

Furthermore, crowdfunding may also be a way of reducing the inequality between men and women in the entrepreneurial environment. In a report from 2015, EY found only 9% of the entrepreneurs in the Nordic countries were female (EY, 2015). When studying gender biases between venture capitalists and funders of crowdfunding campaigns, Mollick (2013) found that females received only 1.3% of venture capitalists' investments. In comparison, females were present in at least 21.1% of funded crowdfunding projects (Mollick, 2013). This finding suggests that supporters of crowdfunding campaigns are less biased by gender than more traditional sources of finance (Mollick, 2013).

To summarize, crowdfunding volumes have increased dramatically in recent years (Zhang et al., 2016) and are expected to continue to grow in the years to come (Assenova et al., 2016). Even though some countries have small markets for crowdfunding today, these countries might have a favourable environment for crowdfunding, like what was found to be the case in Norway (OECD, 2016; Statistics Norway, 2016a; The World Bank, 2017). Consequently, these countries might increase their crowdfunding volumes in the future. To enhance this growth, institutions should develop encouraging regulations for crowdfunding (Kreutzer, 2016, 03.10; Shneor and Aas, 2016).

Overall, crowdfunding represents an opportunity for entrepreneurs and others to attract financial resources at critical stages of a project or venture development (The World Bank, 2013). Hence, a clearer understanding of what crowdfunding is and which factors influence the performance of crowdfunding campaigns are highly relevant for entrepreneurs, governments, and the “crowd” wanting to engage in crowdfunding activities.

### 3 Literature Review

For entrepreneurs or others that want to use the opportunity of crowdfunding to fund a project or venture, it is important to know how to make a crowdfunding campaign to perform better than others. About 60% of projects on the US-based platform Kickstarter are unsuccessfully funded (Kickstarter.com, 2017c), hence what and how entrepreneurs present their projects are important for crowdfunding performance (e.g. Frydrych et. al., 2014; Calic and Mosakowski, 2016; Bi, Lie and Usman, 2017).

In this chapter, different methods of measuring crowdfunding success are examined, before previous literature on which factors of crowdfunding campaigns have shown to be relevant for a successful performance are assessed. The literature review table is found in Appendix 1, and a summary of previous research is found in Table 1.

It is important to notice that crowdfunding is a relatively new concept within academia, and this affects the scope and significance of previous literature. As shown in Chapter 2, the crowdfunding industry is changing rapidly (Zhang et. al., 2016), and thereby the studies of previous features might not be significant in this shifting environment.

Based on Rogers’ innovation adoption curve (Rogers, 2010), both campaigners and funders today might have different characteristics than in previous studies. The first ones to create crowdfunding campaigns, and the first ones to fund crowdfunding campaigns, might have characteristics of innovators (Rogers, 2010). Today, an increasing number of people know about crowdfunding and uses it both to create and fund new ideas. Hence, the characteristics of both campaigners and funders might have changed to later stages of the Roger’s adaption curve (Rogers, 2010). In addition, when more people start using crowdfunding, the variety of

ideas is expected to increase. Overall, these factors might change the scope and significance of previous studies on the subject.

Furthermore, the literature discussed in this thesis is mostly related to donation- or reward-based crowdfunding – as the other types of crowdfunding might have different factors related to good performance.

### 3.1 How to Measure Crowdfunding Success

Campaign success can be measured in several ways. Most of the studies examined, measure success as a binary variable of reaching or not reaching the amount of money set as a goal in the crowdfunding campaign (Lehner, 2013; Mollick, 2013; Mollick, 2014; Frydrych et. al., 2014; Colombo, Franzoni and Rossi-Lamastra, 2015; Parhankangas and Renko, 2016; Hobbs, Grigore and Molesworth, 2016; Calic and Mosakowski, 2016; Zheng, Li, Wu and Xu, 2014). In these papers, the campaigns studied are mostly “all-or-nothing” campaigns, hence they are only getting the funded amount if the crowdfunding campaign reaches its goal (Hörisch, 2015). Therefore, in these cases it is logical to use a binary variable as measurement, as these campaigns do not receive any money if they do not reach their pre-set goal. On the other hand, to use this binary measure for a campaign with a “keep what you raise” strategy might limit the power of explanation. By using this strategy, the campaigners get the amount of money raised regardless of whether they reach their pre-set goal or not (Hörisch, 2015).

In addition to reaching the goal for funding, Calic and Mosakowski (2016) measure the pledge amount, the amount each backer is contributing, as a variable of success. They believe that the more each backer contributes, the more likely it is that the goal is reached (Calic and Mosakowski, 2016). In contrast, both Ward and Ramachandran (2010) and Wu, Wang and Li (2015) suggest the number of people invested in the project is more related to success rather than the money each contribute with, as this is a measure of the popularity of the project. Supporting this, Kuppuswamy and Bayus (2015) use the number of backers added each day as the dependent variable. Also, Wu and his colleagues (2015) measure the number of likes the campaign got – which is a feature on the Chinese crowdfunding platform demohour.com.

By measuring popularity as a variable of success, one might also capture the marketing effect of crowdfunding. To test the market and promote ideas were mentioned to be major

motivational factors by entrepreneurs using crowdfunding (Gerber and Hui, 2013; Schwienbacher and Larralde, 2010). Nevertheless, the number of backers might be viewed as the road to success rather than the success factor itself. Kraus, Richter, Brem, Cheng, and Chang (2016) used number of backers as an independent variable and found a strong relationship between this and their variable of success; the percentage of money raised for the project compared with the goal of funding.

Instead of backers added or the binary variable of reaching the funding goal or not, other researchers measure the funding ratio as a continuous variable for measuring performance level (Hörisch, 2015; Kraus et. al., 2016). The funding ratio varies with both the amount of funding received and the goal for funding. For campaigns without the “all-or-nothing” approach, the funding ratio can be understood as a measurement of the proportion of money the project gets compared with their funding goal – hence the ratio of the project’s success or the campaign’s performance. A problem with this measurement, is that campaigns with a lower goal will be viewed as more successful than a campaign with a higher goal for funding, even though they have attracted the same amount of money.

When studying the relationship between the decided goal and the success of the campaign, some suggest the relationship to be negative (Zheng et. al., 2014; Calic and Mosakowski, 2016; Hörisch, 2015), but others indicate it is a positive relation (Ward and Ramachandran, 2010; Davis et. al., 2017). A lower goal might be easier to reach as it required less money to be contributed by the crowd, but a higher goal might reflect the value and ambition of the crowdfunding project hence be a more attractive funding target. Nevertheless, when deciding the funding goal of a crowdfunding campaign the entrepreneur should make it reflect the minimum amount of money needed for the project to launch and send out all promised rewards (Kickstarter, 2017b). Therefore, the funding ratio should be a good measurement of how close (or far away) the campaign is from a successful launch of the project – hence a good measurement of the performance of campaigns.

### 3.2 Crowdfunding Campaigns Success: External Factors

The success of crowdfunding campaigns is believed to be influenced by several different variables concerning the entrepreneur, campaign, funders, or other external variables.

Both Kraus and his colleagues (2016) and Hobbs and his colleagues (2016) state that the number of backers for a campaign is the most important factor for the amount of money raised in the campaign. This finding appears to be cyclical logic, where the two variables represent outcomes of the campaign rather than cause and effect. The number of backers might be a characteristic of successful campaigns, as it is logical that campaigns which have collected a lot of money have more backers than campaigns which have not raised a significant sum of financing. However, the number of backers are not believed to be the cause of successful campaigns.

Furthermore, Ward and Ramachandran (2010) found a positive relationship between the number of people on the crowdfunding platform and the number of people supporting campaigns on the platform. This indicates that by using a popular crowdfunding platform the project is more likely to succeed. However, an increasing number of active projects on the platform had a negative effect on the likelihood of a project on the platform to be funded (Kuppuswamy and Bayus, 2015). Consequently, a popular platform among other entrepreneurs might not be as favourable for crowdfunding success. Meer (2014) also found that competition between projects in similar category reduces the likelihood of a project to be funded. These findings are contradictory, as a popular platform among entrepreneurs often attract more potential funders.

Other external variables include positive comments about the crowdfunding campaign (Ward and Ramachandran, 2010), number of reviews on the project's campaign site (Bi et. al., 2017), number of shares on Facebook (Hobbs et. al., 2016), and featuring by the crowdfunding platform on their home page (Ward and Ramachandran, 2010; Mollick, 2013). All these factors are found to have a positive relationship with crowdfunding success as they are increasing the traffic to the campaign site (Ward and Ramachandran, 2010; Mollick, 2013; Bi et. al., 2017). However, these factors are outside the entrepreneurs' direct control, and hence are not useful in the assessment of variables that the entrepreneur can change in order to create better performing crowdfunding campaigns.

The linguistics and grammar of crowdfunding campaigns have also been examined by researchers as factors towards crowdfunding success (Parhankangas and Renko, 2016; Mollick, 2014). According to previous studies, neither linguistics (Parhankangas and Renko, 2016) or spelling errors (Mollick, 2014) has significant effect on commercial crowdfunding

success. However, Parhankangas and Renko (2014) found that for social campaigns, concrete and precise language as well as an interactive style were favourable factors in order to attract funds. This is logical, as creators of social projects need people to engage in the cause itself and convince people to back the project based on different communication methods (Parhankangas and Renko, 2016). On the other hand, since Parhankangas and Renko (2016) found no relationship between linguistics and success of commercial projects, one might expect that for commercial projects the quality of the product is more important than communication about it. Derived from this, if using donation-based crowdfunding models, which is defined by having no financial or material incentives for funding (Garvey et. al., 2017), the creator should be more concerned about the linguistics than when using other models of crowdfunding.

### 3.3 Crowdfunding Campaign Success: Entrepreneur's Characteristics

Previous research has often focused on characteristics of the entrepreneurs that launch crowdfunding campaigns, and their influence on success. Female entrepreneurs are in general found to be more successful on crowdfunding platforms (Frydrych et. al., 2014; Colombo et. al., 2015; Davis et. al., 2017), as well as entrepreneurs with Caucasian ethnicity (Davis et. al., 2017). Even though these studies examine characteristics of successful entrepreneurs, thus not providing insight for why they were successful, it is interesting to see if these differences also are present in this study.

Moreover, teams or pairs of entrepreneurs are found to be more successful compared to individual creators of crowdfunding campaigns (Frydrych et. al., 2014). Arguably, the more campaigners in the team the more people are involved in the inputs that is placed, and more people have committed to the performance of the crowdfunding campaign. Hence, the risk of human errors is reduced, which in turn might reduce the risk perceived by potential contributors. In other words, more people involved in the creation of the campaign may lead to more trust towards the campaign being of good quality. Both gender and number of campaigners will be used as control variables in this study, while ethnicity might be used to describe any differences between my results and results from research in other settings.

Experience, measured by the entrepreneur's previous successful projects on crowdfunding platforms, is found by Mollick (2013) to have a positive effect on the success of



crowdfunding campaigns. However, Davis and his colleagues (2017) found that the entrepreneur's experience had no effect on crowdfunding success when including variables such as product creativity, entrepreneur's passion, and funders' positive affection towards the campaign. In their study, experience was assessed as either functional experience in the same or a similar context as the crowdfunded project, or as whether the entrepreneur had prior experience that could be leveraged in the project of the crowdfunding campaign (Davis et. al., 2017).

The logic behind Mollick's (2013) finding is that the more experience the entrepreneur has with creating successful crowdfunding campaigns, the more will he or she know about how to make a successful campaign. Gerber and Hui (2013) found uncertainty and lack of trust were barriers for potential funders when deciding to invest in a project or not. Derived from this, previous success might work towards legitimizing the entrepreneur and hence might reduce barriers of uncertainty that potential funders might experience when making the investment decision. In the context of Davis and his colleagues' (2017) study, their measurement of experience was not concerned with previous experience with crowdfunding – hence the negative result might reflect the importance of information about factors that influence crowdfunding performance before launching a campaign. Arguably, information about factors that influence performance might substitute for previous experience with successful crowdfunding campaigns – making this study highly relevant for new entrepreneurs and others that want to take advantage of the opportunity crowdfunding gives.

Furthermore, several researchers have found a positive relationship between the entrepreneurs' social ties (measured by the number of friends on social media sites such as Facebook or Weibo) and crowdfunding success (Mollick, 2013; Mollick, 2014; Colombo et. al., 2015; Calic and Mosakowski, 2016). This can be related to the theory of social capital, which can be defined as *the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network* (Nahapiet and Ghoshal 1998, p. 243). Based on social capital theory, it is logical to believe that the more entrepreneurs that are related to the crowdfunding campaign, like teams or pairs of entrepreneurs, the bigger social network can be utilized to create engagement for the campaign. This might be one explanation for why Frydrych and his colleagues (2014) found teams and pairs to be more successful than individual entrepreneurs.

Reciprocity is also a part of social capital theory. Zheng and his colleagues (2014) found that creators of crowdfunding campaigns are more likely to succeed if they back other crowdfunding campaigns. By backing other projects, the creators of those projects will act favourably towards your campaign as a sign of reciprocity (Zheng et. al., 2014). Their study examined the difference between China and the US, and the relationship between what they called “obligations to fund other entrepreneurs” and crowdfunding success was more reflected within Chinese crowdfunding culture (Zheng et. al., 2014). This indicates that culture might impact the potential funders’ decision to support a crowdfunding campaign.

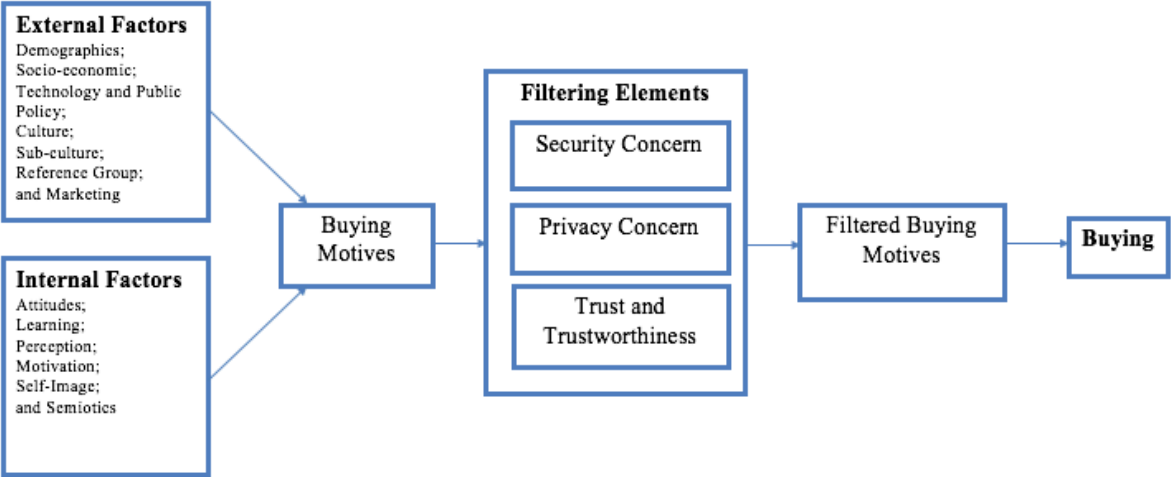
Nevertheless, the use of social capital is more important than having social capital (Hui et. al., 2014). When talking to both successful and unsuccessful creators of crowdfunding campaigns, Hui and his colleagues (2014) found that creators did not have a sufficient understanding of their social network and how to leverage their connections. One participant complained that even though he was reaching out to everyone in this social network very few had looked at his campaign or spread the word to others (Hui et. al., 2014). This indicates that the use of social ties is more important than the number of social ties for entrepreneurs that want to succeed with their crowdfunding campaigns. Furthermore, to attract backers and capital early in the campaign period seem to be crucial, as Colombo and his colleagues (2015) found number of early backers and amount of early capital to predict successful campaigns.

### 3.4 Crowdfunding Campaign Success: Online Consumer Behaviour

Ultimately, it is the behaviour of potential funders that determines if a campaign is successful or not. Gerber and Hui (2013) argue that crowdfunding can be understood as a type of market, where creators produce and market their ideas or projects and supporters consume them. This is especially true for donation-based, reward-based and pre-purchasing models for crowdfunding, as these models require consumers to validate the product or service the campaigners want to launch, not the prosperity of the firm’s value (Hörisch, 2015). Thus, funders might have similar traits as consumers when deciding to, in this case, support a crowdfunding campaign. Theories of online consumer behaviour might therefore be used to understand the reasons behind potential funders’ behaviour towards different crowdfunding campaigns.

When reviewing existing literature on the topic of online consumer behaviour, Dange and Kumar (2012) developed a framework as a basis to empirically explore behaviour of customers online, see Figure 4. According to their framework, the decision to buy a product is affected by external factors, internal factors, and filtering elements (Dange and Kumar, 2012).

Figure 4: Theory of Online Consumer Behaviour



Source: Dange and Kumar, 2012.

This thesis focuses on developing guidelines for entrepreneurs in their pursuit of better performing crowdfunding campaigns, and therefore only factors and elements that the entrepreneur can affect are assessed. Based on the framework presented by Dange and Kumar (2012), entrepreneurs can impact the perception and attitudes of potential funders, the marketing of the crowdfunding campaign, and some aspects of the trustworthiness of the funding situation. These factors are believed to impact a funder’s decision to support a campaign, hence will have a positive impact on crowdfunding campaigns’ performance. Further, these four aspects are assessed in relation to previous literature on the subject.

3.4.1 External Factors: Marketing

Several researchers have examined the effect of different marketing methods and crowdfunding success (e.g. Ward and Ramachandran, 2010; Mollick, 2014; Kraus et. al., 2016). Mollick (2014) showed a quick update, three days within launch of the campaign, had a positive effect on success. Furthermore, several researchers suggest a positive relationship between number of updates and campaign success (Kraus et. al., 2016; Ward and

Ramachandran, 2010; Kuppuswamy and Bayus, 2015; Wu, Wang and Li, 2015; Hobbs et. al., 2016). Kuppuswamy and Bayus (2015) specifically studied the effect on how many backers were added in a particular day, and updates were directly linked to people investing in the project, hence linked to the success of the campaign. Number of blog entries, as a specific update, was also found to positively relate to success (Kraus et. al., 2016).

In addition to updates and blog entries, the number of links provided (Bi et. al., 2017) and web presence (Kraus et. al., 2016; Hobbs et. al., 2016) are found to have positive relationships with crowdfunding success. More specifically, Hobbs and his colleagues (2016) found the amount of search results on Google to have a positive impact on the success of crowdfunding campaigns. This indicates that promoting the campaign on several media platforms might increase the likelihood of people finding the campaign and thereby enhancing the potential of them wanting to contribute to the project.

All independent variables mentioned in relation to marketing consider the quantity of marketing initiatives (Ward and Ramachandran, 2010; Mollick, 2014; Kuppuswamy and Bayus, 2015; Kraus et. al., 2016; Bi et. al., 2017). Neither of the researchers studied marketing in the context of funder's perception or attitude towards the campaign, and therefore one cannot be certain if the variables found to be significant are just coincidental characteristics of previous successful campaigns or important aspects of why the campaigns were successful. It is logical to believe that quality of marketing (how), not quantity, is more important to engage potential funders.

### 3.4.2 Filtering Elements: Trustworthiness

Distrust of creators' use of money was found to be one of the main barriers for potential funders when deciding to support a campaign or not (Gerber and Hui, 2013). Enhancing trust and trustworthiness between funder and creator might therefore be important when attracting potential funders to a crowdfunding campaign.

Schwienbacher and Larralde (2010) and Agrawal and his colleagues (2013) indicate trust to be one of the main factors enhancing the likelihood of crowdfunding success. The same is suggested by Zheng and his colleagues (2014), especially for funders and creators within the Chinese market of crowdfunding. However, neither of the studies mentioned use quantitative methods to assess whether this factor is significant or not.

Several studies have tried to measure trust and trustworthiness between individuals in an economic context (Glaeser, Laibson, Scheinkman and Soutter, 2000; Berg, Dickhaut and McCabe, 1995; Bailey et. al., 2015). Studies have found the degree of social connection between sender and recipient (Glaeser et. al., 2000; Berg et. al., 1005), nationality (Glaeser et. al., 2000), age (Glaeser et. al., 2000; Bailey et. al., 2015) and several other demographic factors affect the level of trust between two participants. There are also different categories of trust (Williamson, 1993), which make the theory of trust even more complicated. Effectively, the perception of trust is bound by several aspects of individual traits – hence might not be useful when trying to develop similarities across a large group of people. The measurement of trust requires an extensive data set and a lot of work separating the different demographic impacts to get a significant result. Based on this, measuring trust is outside the scope of this thesis.

With that being said, trust can affect and be affected by several features closely related to crowdfunding and success. Social ties with the creator(s) of a crowdfunding campaign might make the potential funder more trusting towards that group or individual, third-party recognition might legitimize the project and the entrepreneur(s), and as mentioned, previous experience might increase trust. Consequently, trust might be used to explain certain indicators later in this thesis.

### 3.4.3 Internal Factors: Attitude and Perception

Previous researchers indicate creativity (Calic and Mosakowski, 2016; Davis et. al., 2017), product and reward quality (Hörisch, 2015; Hobbs et. al., 2016), quality of campaign material (Mollick, 2014; Frydrych et. al., 2014; Hörisch, 2015; Hobbs et. al., 2016; Bi et. al., 2017), and scope of campaign (Gerber and Hui, 2013; Hörisch, 2015; Calic and Mosakowski, 2016) to have significant impact on crowdfunding success. These factors can be related to the attitude and perception of potential funders, and are described in detail below.

First, both Calic and Mosakowski (2016) and Davis and his colleagues (2017) found perceived creativity of the project to have a positive impact on the success of crowdfunding campaigns. In the study by Davis and his colleagues (2017) creativity was defined as *the extent to which a product represented a meaningful, value-creating advancement as compared to existing market offerings in the product category* (p. 94). While Calic and Mosakowski (2016) used expert judges to code the creativity of the projects studied, Davis

and his colleagues (2017) studied the responses from students when assessing the perceived creativity of the projects.

In contrast with the measurement of trustworthiness, creativity is something that is widely understood across cultures and similar throughout different demographic features (Park, Peterson and Seligman, 2004). Creativity, if found significant, is consequently a factor that is expected to work similarly across different countries and crowdfunding platforms.

Secondly, quality of offering is believed to impact potential funder's behaviour towards the crowdfunding campaign (Hörisch, 2015; Hobbs et. al., 2016). For a reward-based crowdfunding campaign, the reward is what is offered to potential funders (Harrison, 2013). Gerber and Hui (2013) found collecting rewards to be one of the main sources of motivation among funders in their study of reward-based crowdfunding campaigns. This is an indication that rewards impact potential funders' decision to support a crowdfunding campaign.

In several studies of reward-based crowdfunding models, the number of rewards offered is found to be positively related to potential funder's willingness to contribute to the project (Mollick, 2013; Calic and Mosakowski, 2016; Hobbs et. al., 2016; Kraus et. al., 2016). However, another study found number of rewards not to be significant for crowdfunding success (Hörisch, 2015). Instead, Hörisch (2015) was more concerned about the quality of the reward offered. Reward quality was studied by Hobbs and his colleagues (2016), who indicated the quality of rewards offered had positive impact on crowdfunding success. Logically, it is favourable to have several alternative rewards to choose from so that all potential funders find an alternative they like and can afford. However, one should not just add alternatives without considering the added value, hence quality, for potential funders. Consequently, the quality of rewards might affect potential funders' decision to support a project in a larger extent than the quantity of rewards.

Next, the campaign creators' preparedness is found to be a crucial part of a successful crowdfunding campaign (Mollick, 2013; Mollick, 2014; Frydrych et. al., 2014; Hörisch, 2015; Davis et. al., 2017, Bi et. al., 2017). Mollick (2013) measured preparedness as the inclusion of a prototype and a video on the campaign site, and found a positive and direct impact between these features and success. Other researchers also found video to be a good way of showing preparation for entrepreneurs (Mollick, 2014; Hörisch, 2015; Koch and

Siering, 2015; Colombo et. al., 2015; Bi et. al., 2017). Moreover, Colombo and his colleagues (2015) found a positive relationship between number of visuals (both videos and images) and crowdfunding success. Yet, Davis and his colleagues (2017) found the length of the video was negatively related to crowdfunding success.

Frydrych and his colleagues (2014) argue that video demonstrations should be a minimum requirement for crowdfunding campaigns. They found no effect between the inclusion of a video and funding success, and argue video communication has become standard for crowdfunding campaigns and not a way to differentiate a project from others (Frydrych et. al., 2014). Similar to the assumption based on quality of rewards, creators of crowdfunding campaigns should be more concerned about the quality of the video presented. Pitch quality, including the visual part of the campaign, is found to impact campaign success (Hobbs et. al., 2016). Furthermore, not having a video, as indicated by all researchers above (Mollick, 2013; Mollick, 2014; Frydrych et. al., 2014; Koch and Siering, 2015; Hörisch, 2015; Davis et. al., 2017; Bi et. al., 2017), is related to failure.

The word count of the introduction on the crowdfunding site, as a measure of preparedness, has a positive impact on success (Bi et. al., 2017). Nevertheless, as argued previously, what is written (quality) might be more important than the length of the text (quantity). Thus, word count will not be included as a determinant for crowdfunding success in this thesis.

Lastly, the scope of the project is found to be important for crowdfunding success (Calic and Mosakowski, 2016; Hörisch, 2015). Lehner (2013) found that monetary gain was less important among funders or investors of all types of crowdfunding campaigns than for traditional investors. Furthermore, when studying funder's motivation to support crowdfunding campaigns, Gerber and Hui (2013) found helping others and supporting a cause to be two of the main factors motivating potential funders to support a project.

Calic and Mosakowski (2016) found campaigns that are created to help others, social and environmental oriented projects, to be positively related to crowdfunding success. This is partly supported by Hörisch (2015) as he found non-profit projects, typically based on social challenges, to have a positive effect on success. However, when studying the relationship between crowdfunding campaigns success and environmental orientation, Hörisch (2015) found no significant effect. He further argues that environmental campaigns should use

tangible goods to attract more funds as people might not see the value of environment protection as intensively as supporting social projects (Hörisch, 2015). This thesis will study the impact of both social and environmental orientation on the perceived attractiveness of crowdfunding campaigns for potential funders.

Generally, most researchers look at quantitative measures when analysing success criteria for crowdfunding campaigns. However, consumers' perceptions and attitudes are often impacted by qualitative features (Dange and Kumar, 2012). Also, previous studies have mainly collected official data from crowdfunding platforms, and not used potential funders' perception of the campaigns as the basis for analysis. Thus, this contributes to research by using people's perceptions of crowdfunding campaigns as the basis of analysis. In the next chapter, the model for further study is presented, as well as a discussion for why those variables are included in the model.

The summary of the findings from previous research is presented in Table 1 below. The sign “+” is related to positive relationships with crowdfunding success, “-“ with negative relationship with crowdfunding success, and n.s. for not significant relationships.



Table 1: Summary of Previous Research

External Factors	Entrepreneurs characteristics	Campaign
<p>Positive comments (+)            Number of reviews (+)            Featured by platform (+)            Number of shares on Facebook (+)              Number of people on the platform (+)            Number of active projects on the platform (-)            Competition between projects (-)              Early backers (+)            Amount of early capital (+)</p>	<p>Females (+)            Caucasian ethnicity (+)            Teams and pairs (+)            Experience (+)            Social ties (+)            Obligation to fund other entrepreneurs (+)</p>	<p>Linguistics (n.s.)            Spelling errors (n. s.)            Concrete and precise language (+)            Interactive language (+)              Quick update (+)            Number of updates (+)            Number of blog entries (+)            Number of links provided (+)            Web presence (+)              Creativity (+)            Trust (+)              Number of rewards offered (+, n.s.)            Include video (+, n.s.)            Prototype (+)            Number of visuals (+)            Length of video (-)            Introduction word count (+)              Social campaigns (+)            Environmental campaigns (+, n.s.)</p>
<p><i>Sources:</i> Ward and Ramachandran, 2010; Mollick, 2013; Meer, 2014; Kuppuswamy and Bayus, 2015; Colombo et. al., 2015; Hobbs et. al., 2016; Bi et. al., 2017.</p>	<p><i>Sources:</i> Mollick, 2013; Mollick, 2014; Frydrych et. al., 2014; Colombo et. Al., 2015; Calic and Mosakowski, 2016; Davis et. al., 2017.</p>	<p><i>Sources:</i> Schwienbacher and Larralde, 2010; Ward and Ramachandran, 2010; Mollick, 2013; Agrawal et. al., 2013; Mollick, 2014; Frydrych et. al., 2014; Kuppuswamy and Bayus, 2015; Hörisch, 2015; Koch and Siering, 2015; Colombo et. al., 2015; Wu et. al., 2015; Hobbs et. al., 2016; Parhankangas and Renko, 2016; Kraus et. al., 2016; calic and Mosakowski, 2016; Bi et. al., 2017; Davis et. al., 2017.</p>

## 4 Research Model

Based on the discussions of previous research, the current study considers aspects of quality of campaign elements as well as quantitative measures believed to influence performance of crowdfunding campaigns. By studying additional variables of crowdfunding campaigns, this study may contribute to new understanding of how to make a crowdfunding campaign that performs better than others.

Next, I will formulate hypotheses based on revisited literature and theory arguments.

### 4.1 Creativity

Both Calic and Mosakowski (2016) and Davis and his colleagues (2017) found perceived creativity of the project to have positive impact on the success of the crowdfunding campaigns. Creativity has a positive impact on individuals, as people tend to experience positive emotions when observing creative performance or creations (Park et. al, 2004). Arguably, creativity might increase potential funders' positive perceptions toward a crowdfunding project, thereby the willingness of potential funders to support the project. Consequently, greater creativity of a project might lead to greater performance of crowdfunding campaigns, as stated in the following hypothesis:

H<sub>1</sub>: The greater the perceived creativity of the project by the potential funders, the greater the performance of the crowdfunding campaign.

### 4.2 Reward Quality

Gerber and Hui (2013) found collecting rewards as one of the main sources of motivation among funders of reward-based crowdfunding campaigns. In addition, several researchers found that the number of rewards offered was positively related to crowdfunding success (Mollick, 2013; Calic and Mosakowski, 2016; Hobbs et. al., 2016; Kraus et. al., 2016). This indicates that rewards impact potential funders' decision to support a crowdfunding campaign, hence the performance of campaigns.

As argued in the literature review, the quality of rewards might have a stronger impact than the quantity of rewards. The value of the rewards offered are believed to have a stronger

impact on potential funders' perception compared to how many rewards can be chosen from. Consequently, the hypothesis is formulated as follows:

H<sub>2</sub>: The greater perceived quality of rewards offered by the potential funders, the greater the performance of the crowdfunding campaign.

### 4.3 Quality of Campaign

Early-stages ventures or projects are often unfinished or unproven, hence objective evidence of quality is missing (The World Bank, 2013). Therefore, potential funders must rely upon subjective impressions when making investments decisions. In the crowdfunding context, the subjective impressions of potential funders are based on what they see, hence their perceptions of the crowdfunding campaign. Derived from this, the perception of the quality of the campaign is believed to affect the performance of the crowdfunding campaign. The following hypothesis is formulated:

H<sub>3</sub>: The greater perceived quality of the campaign by the potential funders, the greater the performance of the crowdfunding campaign.

### 4.4 Logos and Pathos

Variables of logos and pathos are included to assess whether appealing to logic or emotions are factors influencing crowdfunding campaigns' performance. Logos refers to something logical and based on rationality, while pathos is something that appeals to emotions and feelings (Feltham, 1994). These variables are found by Feltham (1994) to affect how people view advertisements, and he further argues these variables might also have influence in other contexts.

The hypotheses are formulated as followed:

H<sub>4</sub>: The degree to which the campaign appeals to the potential funders' logic, has positive impact on the performance of the crowdfunding campaign.

H<sub>5</sub>: The degree to which the campaign appeals to the potential funders' emotions, has positive impact on the performance of the crowdfunding campaign.

## 4.5 Social or Environmental Orientation

When studying funders' motivation to support crowdfunding campaigns, Gerber and Hui (2013) found helping others and support a cause to be two of the main factors that motivated potential funders to support a project. Calic and Mosakowski (2016) and Hörisch (2015) both found campaigns that were created to help other had positive impact on crowdfunding success. Hörisch (2015) found non-profit projects to have a positive effect on success, while campaigns with an environmental orientation were found to have no significant effect on the success of the campaign. On the other side, Calic and Mosakowski (2016) found both social and environmental orientation of crowdfunding campaigns to have positive impact on success.

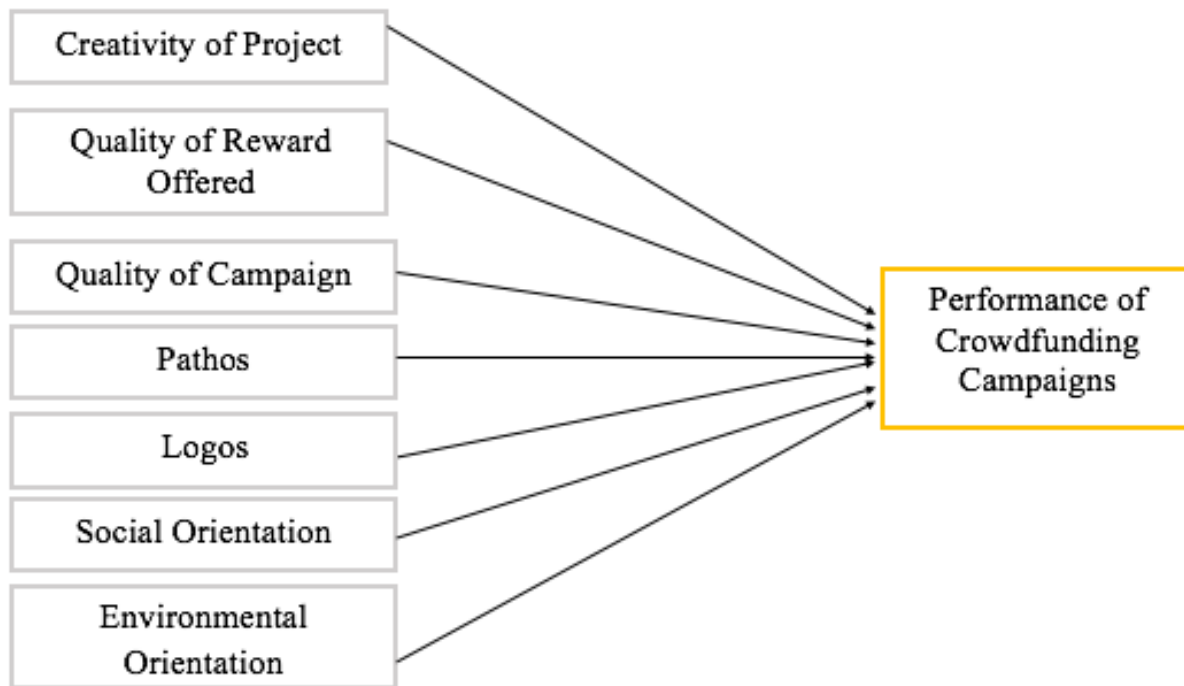
Because of the diverse findings related to environmental campaigns, this study assesses social and environmental orientation of crowdfunding campaigns as two separate variables. The following hypotheses are formulated:

H<sub>6</sub>: The degree to which the campaign is perceived as socially oriented by the potential funders, has positive impact on the performance of the crowdfunding campaign.

H<sub>7</sub>: The degree to which the campaign is perceived as environmentally oriented by the potential funders, has positive impact on the performance of the crowdfunding campaign.

Based on the hypotheses above, the research model is presented in Figure 5 below.

Figure 5: Research Model



## 5 Data Collection Guide

This study uses assessments of different crowdfunding campaigns to examine the relationship between the independent variables explained in the research model in Figure 5 and the performance of crowdfunding campaigns.

As previous research in this area is concentrated around different variables not necessarily relevant for this study, I collect primary data specifically for this thesis. Students' assessments of different crowdfunding campaigns are used as basis for the analyses. According to a review of current studies on product creativity, Horn and Salvendy (2006) argue that consumer-based assessments of creativity are useful methods to get reliable and valid results, which in this case relate to assessments by potential funders of crowdfunding campaigns. This is also believed to apply to the other variables of quality and scope of crowdfunding projects, as students are used to assess the independent variables in a specific study for evaluating crowdfunding campaigns (Davis et. al., 2017).

Because of limited resources, an online survey is conducted. By using this method, the responses can be obtained faster, the cost is lower compared to traditional survey collection, and the respondents can reply to the questionnaire at their convenience (Sreejash, Mohapatra and Anusree, 2014). The study will have an exploratory design (Saunders, Lewis and Thornhill, 2016), hence aims to understand the topic of crowdfunding, and explain why some campaigns perform better than others.

In the following I present, discuss, and justify the campaigns selected to be assessed, as well as the sample chosen to respond to the survey. I will also operationalize the variables used for assessment and present the rating form used for making the online questionnaire.

## 5.1 Selection of Campaigns

Like most of the previous studies on this topic, this thesis uses campaigns from Kickstarter.com (e.g. Colombo et. al., 2014; Calic and Mosakowski, 2016; Davis et. al., 2017). Kickstarter allows me to derive projects from different categories and sort them by “newly launched” and ending date, which makes it easier to collect the campaigns that are most suitable for this study. Additionally, the platform allows both US-based and other nationalities to post their projects on the platform. Hence, one can distinguish between US-based and European campaigns even though campaigns are derived from the same platform. By collecting the campaigns from the same platform, respondents are believed to easier focus on the campaign itself and not be biased by the characteristics of the platform.

100 projects were collected, 50 US-based projects and 50 projects based in Europe, from the categories of “design” and “technology”. These categories were selected as they had two of the largest amount of live campaigns at the time of collection, and are believed to have a certain degree of professionalism regarding funding goal and project plan.

To determine which campaigns from the two categories to be selected the following criteria were used. Firstly, the campaigns should not have raised more than 15% of their funding target at the time of collection. This is to assure that the respondents are not biased by the popularity of the project they assess. Kuppuswamy and Bayus (2015) believe the effect of social influence in reward-based crowdfunding involve rational herding. This indicates that when a project is closer to its goal, the campaign is more likely to succeed since backers

expects that their contribution has more impact if they support a project that is close to its goal (Kuppuswamy and Bayus, 2015). In other words, people tend to perceive projects that already have a substantial amount of funding to be more attractive funding objects than campaigns which do not have this evidence of quality.

Secondly, the campaigns should have a funding goal between USD 3,000 and USD 50,000. By limiting the funding goal, I try to assure that the campaigns have a certain professionalism, while also exclude some extreme cases with very large funding goals. Other researchers have used a limit of USD 5,000 and no upper limit (e.g. Mollick 2013), but in this case the projects between USD 5,000 and USD 3,000 are found to show sufficiently evidence of professionalism. When the funding goal was stated in Euro or other currency, the amount was calculated to USD using the exchange rates at the time of collection. Lastly, due to the time limit of this thesis, the end date for the campaigns had to be before the 20<sup>th</sup> of April 2017, to ensure enough time for analysis and discussion of the results.

When collecting the campaigns, I first collected campaigns from the category of “design”, which had 515 live projects at the time of collection. This resulted in 47 campaigns from this category. Later, I collected the necessary campaigns from the category “technology”, which had 571 live projects at the time of collection. Since the objective was to have a total of 100 campaigns, 53 campaigns were collected from this category. All campaigns were live at the time of collection.

In Figure 6, 7, and 8, the amount of European and US-based campaigns from each category is presented, and the distribution of funding goals between campaigns from “design” and “technology”.

*Figure 6: Distribution of European and US-based Campaigns in Each Category*

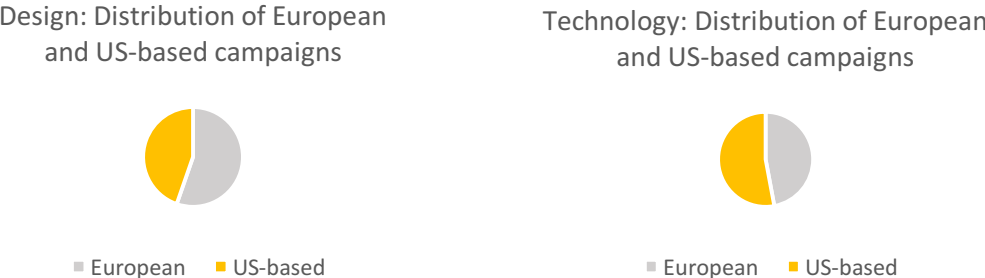


Figure 7: Distribution of Funding Targets for the Category of Technology

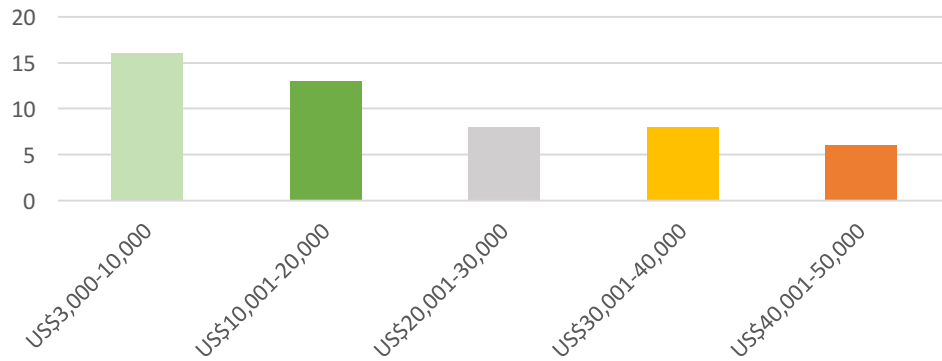
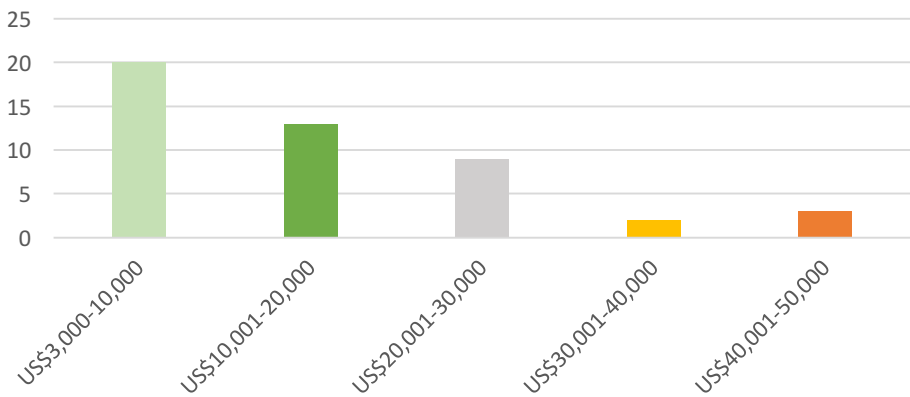


Figure 8: Distribution of Funding Targets for the Category of Design



## 5.2 Respondents

In theory, backers of crowdfunding campaigns can be everyone that have access to the internet. However, based on statistics presented by Matt Ward (2014, 28.11; 2016, 04.05), people between the age of 25 to 34 years with college education and an income less than USD 50,000 are the most likely funders of a crowdfunding campaign. Findings by Davis and his colleagues (2017) support this assessment of funders' characteristics. Additionally, while funders of crowdfunding projects are generally found to be younger than traditional investors, these funders are also found to be less experienced, and have less money to invest compared with traditional investors (Davis et. al., 2017).



Smith (2016, 19.05), representing the Pew Research Centre, conducted a survey that showed that adults between 18 to 29 contributed the most to crowdfunding, with people aged between 30 and 49 close behind. Moreover, this study showed that funders had higher incomes compared with what was found by Ward (2016, 04.05). Smith (2016, 19.05) uses statistics based on self-reported contributions to crowdfunding, hence funders of all types of crowdfunding models could be included. The difference between the income levels in the statistics might therefore be the use of new crowdfunding models like debt- or equity-based in the statistics presented by Smith (2016, 19.05), as Ward (2016, 04.05) seems to only use statistics from reward-based crowdfunding.

Since this study focus on reward-based crowdfunding campaigns, the income level might be more reflected in the statistics presented by Ward (2014, 28.11; 2016, 04.05). The population of people supporting crowdfunding campaigns might therefore be described as people between 18-34 years old, with college education and an income less than USD 50,000 a year.

### 5.2.1 Sampling

Due to limited resources, a combination of snowballing and self-selection sampling is used to collect respondents. Both sampling methods are based on volunteers and are categorized as non-probability sampling methods, hence the results cannot be generalized to the whole population (Saunders et. al., 2016).

Self-selection sampling, also called convenience sampling, is the method where the researcher publicizes the need for cases, either by advertising through appropriate media or by asking respondents to take part in the survey (Saunders et. al., 2016). In this case, direct email and Facebook was used to collect respondents. Due to the lack of sufficient email addresses, each respondent was also asked to provide email addresses to other students within the field of interest, thereby the snowball sampling method was used to promote more responses (Saunders et. al., 2016). Snowball sampling was used to ensure enough respondents to the survey. However, by using this method I limit the opportunity to control who responded to what. There are no tools to make certain of how many campaigns each respondent assessed or which campaigns they choose to answer. This is therefore a weakness of this study.

Based on the assumption about the population of people supporting crowdfunding (Ward, 2014, 28.11; 2016, 04.05; Smith, 2016, 19.05), university students in Norway are found to be

appropriate representatives of potential funders. Norwegian university students are typically between 18 and 34 years old, have or have started on their college education and have an income less than USD 50,000 a year. Students are also believed to have little experience with crowdfunding, which match the characteristics of supporters found by Davis and his colleagues (2017).

To limit the variation of assessments for each campaign, and thereby get a more comprehensive measure of the different variables, the sample should be as similar to each other as possible. This is to limit variation in preferences and background to affect the results of this study. This study uses university students, studying at University of Agder Business and Law and BI Norwegian Business School of Business in Oslo. These two groups of students are expected to be relatively similar and are chosen because of access to their contact details.

After the responses were collected, it was found that the respondents in this study have an average age of 24.3 years and reported to have no or little experience with crowdfunding. This is consistent with what was expected before the survey was conducted.

### 5.2.2 Data Collection Procedure

An online survey was carried out among business students in Norway, using SurveyXact software. By conducting an online survey the responses can be obtained faster, the cost of conducting online surveys are less compared to traditional survey collection and the respondents can reply to the questionnaire at their convenience (Sreejash et. al., 2014). However, by sending out the survey by email, it will lack face-to-face interaction and it is easier for respondents to choose not to answer the survey (Sreejash et. al., 2014). Hence, using email as communication method might affect the response rate.

This study aims to have each campaign to be assessed by three different students. In their study of creativity of crowdfunding campaigns, Calic and Mosakowski (2016) base their variable on three expert judges' assessment of the campaigns studied. This is based on a previous study by Amabile (1996), who argues if three judges can reliably agree with one another, one must accept their assessment as a reliable value. Thereby, three assessments per campaign are expected to be sufficient to get reliable values for the different factors studied.

Because of the challenge with different people assessing different campaigns with the same questionnaire, the survey link was distributed through emails. Before distribution, an email list was made, where each email was assigned three campaigns to assess. The campaigns were assigned randomly. As new email addresses were obtained, using the snowball sampling method, these were added to the email list and randomly assigned campaigns that had not yet been assessed. The objective was to ensure that all campaigns were being assessed by different people.

To control how many campaigns each person had evaluated, and to motivate people to answer the survey, the students were encouraged to respond how many campaigns they had assessed to be eligible to win a gift certificate. Mail surveys are characterized by a high rate of non-response, and entry into drawing of prizes is one way of cope with this challenge (Sreejash et. al., 2014). Another way of trying to heighten the response rate, is to send reminders to participants (Sreejash et. al., 2014). During the weeks of collecting data, several reminders were sent to the students regarding responding to the survey, both through emails and social media.

The data collection process resulted in a total of 182 usable assessments of 96 campaigns with an average of 2 assessments per campaign. This was fewer than my objective of three assessment per campaign. However, due to limited time for completing this thesis, the survey had to be shut down before reaching the objective for number of assessments. Only six campaigns received 3 reviews, while 70 campaigns received 2 reviews, 19 campaigns received 1 review, and one campaign received 5 reviews. The number of campaigns were reduced from 100 to 96 because four of the collected campaigns deleted all their content during the assessment period.

### 5.3 Operationalization of Variables

In this section, I describe how each of the variables are measured. In addition to the variables from the model, the students are also asked about gender, age, their experience with crowdfunding and which university the respondents attend. These control variables are used to examine if the respondents match the characteristics of potential funders and to test whether it is any significant difference between gender of respondents in their assessments.

Most of the questions in this survey are rating questions structured in a matrix. Respondents' experience with crowdfunding and gender are sorted as three category questions with the answers yes or no, while age and university are open questions. The rating questions are based on seven-point Likert scale items, with the exceptions of a five-point Likert-scale for measuring the variables of social or environmental orientation and a semantic differential scale for creativity, logos and pathos. Likert scales *consist of series of statements where the respondents provide answers in the form of degree of agreement or disagreement* (Sreejash et. al., 2014, p.137). The scale is normally used to measure attitude towards the tested items or concepts (Sreejash et. al., 2014).

The complete rating form can be found in Appendix 2. The random order option was used to deal with common method bias when building the survey in SurveyXact. The responses are thereby not influenced by the very order of the question statements.

### 5.3.1 Crowdfunding Performance

Based on the assessment of measurements of crowdfunding success in Chapter 3, the dependent variable will be measured as the funding ratio achieved by the campaigns. The funding ratio is calculated as the amount of funding received divided by the goal for the crowdfunding campaign. This is consistent with Hörisch (2015) and Kraus and his colleagues (2016), who also used this method of measuring success. Instead of success rate, this variable is called performance rate, which was found to better describe the lower level of performance. By using this measure for performance, one can differentiate between low-performing campaigns in the study. Furthermore, this is a more helpful measurement for campaigners that may opt for a “keep what you raise” campaign strategy, compared to “all-or-nothing” campaigns that have been studied thus far.

The amount of money raised is also used as a dependent variable for measuring performance in this study. Thereby, one can observe if it is any difference between the variables influencing the sum raised and the performance rate.

### 5.3.2 Creativity

Creativity can be understood as *the production of novel and useful ideas by an individual or small group of individuals working together* (Amabile, 1988). The concept of creativity is one

of twenty-four basic features that are valued across all major countries and cultures (Park et. al., 2004). Thus, a favourable measurement when studying differences between European and US-based campaigns.

In their study of crowdfunding success factors, Calic and Mosakowski (2016) use the conceptual assessment technique (CAT) to measure the concept of creativity. CAT is developed by Amabile (1982), and is one of the most widely accepted instruments for measuring creativity. For the rating of product creativity, CAT has generated reliable and valid results in hundreds of studies (e.g. Amabile, 1996), which indicate this to be an appropriate measurement tool. However, this method requires experts to assess creativity and for the assessors to look through all objects in the study before assessing any of them (Amabile, 1982). In this thesis, 100 different campaigns are studied, and the researcher has limited access to experts in the field of product creativity. Therefore, this thesis lacks the time and resources to use such a measurement tool.

Davis and his colleagues (2017) use another method for measuring creativity; the ten-item semantic differential scale developed by Andrews and Smith (1996). Figure 9 present the ten-item scale, which measures creativity with the basis of novelty and meaningfulness. Andrew and Smith (1996) measured the perceived creativity of marketing programs, while participants in the study done by Davis and his colleagues (2017) were asked to evaluate different crowdfunding campaign products using the seven-point semantic differential scale. In both studies, the responses were averages to form an overall measure of product creativity (Andrews and Smith, 1996; Davis et. al., 2017).

In this thesis, the scale items are based on the dimensions used first by Andrew and Smith (1996), and later to assess product creativity in crowdfunding campaigns (Davis et al., 2017). Creativity is then divided into two sub dimensions, novelty and meaningfulness (Andrew and Smith, 1996). All ten items in Figure 9 are thereby used in the survey.

It is important to notice that some of the items in the semantic differential scale have the highest score for creativity first (e.g. unique-ordinary), while others have the highest score for creativity last (e.g. dull-exciting).

Figure 9: Marketing Program Creativity

**Appendix  
MEASURES**

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*A. Marketing Program Creativity*

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*Novelty*  
The following adjectives can be used to describe marketing programs. Please rate your product's MOST RECENT marketing program on each set of adjectives.

Compared to what your competitors were doing last year, your product's most recent marketing program is:

Dull	1	2	3	4	5	6	7	Exciting
Fresh	1	2	3	4	5	6	7	Routine <sup>a</sup>
Conventional	1	2	3	4	5	6	7	Unconventional
Novel	1	2	3	4	5	6	7	Predictable <sup>a</sup>
Usual	1	2	3	4	5	6	7	Unusual
Unique	1	2	3	4	5	6	7	Ordinary <sup>a</sup>
Commonplace	1	2	3	4	5	6	7	Original

*Meaningfulness*  
The most recent marketing program for your product is:

Trendsetting	1	2	3	4	5	6	7	Warned Over <sup>a</sup>
Average	1	2	3	4	5	6	7	Revolutionary
Nothing Special	1	2	3	4	5	6	7	An Industry Model

Source. Andrews and Smith, 1996.

### 5.2.3 Reward Quality

Reward quality is related to the concept of value, and is a measure of a product's ability to live up to the average consumer's expectations about it (Kenyon and Sen, 2015). The expectations often differ between consumers; hence quality is a subjective perception of the value of the product, or in this case the reward.

Hobbs and his colleagues (2016) developed a reward analysis rating for measuring reward quality. Their best category for reward quality was written as follows: *Excellent range of awards offered, with items available, which provided tangible value, such as DVDs or film posters. In addition to this, a number of unique rewards were offered such as cast roles or props from the film* (p. 152). Furthermore, they describe potential funder's perception of value for money to impact their evaluation of reward quality (Hobbs et. al., 2016).

Instead of using mutually exclusive categories with a number of different factors affecting the perception of quality, this study divides Hobbs and his colleagues (2016) reward analysis rating into several Likert scale items. The statements used are "the reward(s) offered provide tangible value", "the reward(s) offered are unique", and "the reward(s) offered provide value for money". In this way, respondents have more alternatives to distinguish the campaigns from each other.

In addition to statements based on Hobbs and his colleagues (2016), this study uses the respondents' perception of number of rewards offered, as several researchers indicate that sufficient number of alternative rewards impact the success of a crowdfunding campaign (Mollick, 2013; Calic and Mosakowski, 2016; Hobbs et. al., 2016; Kraus et. al., 2016): “The campaign offers sufficient number of alternative rewards”.

Additionally, some statements are based on Lee, Strong, Kahn and Wang's (2002) methodology for information quality assessment, more specifically their measure of “appropriate amount” and “relevancy”. Statements related to appropriate amount are “the number of rewards offered is of sufficient volume”, “the number of rewards is neither too much or too little”, and “the number of reward(s) offered does not match my need”. Statements related to relevancy are “the rewards offered are useful”, and “the rewards offered is relevant for the campaign”.

Lastly, a statement related to the attractiveness of the reward is included, “the reward(s) offered are attractive and interesting”.

#### 5.2.4 Campaign Quality

A campaign consists of a written text and often images and videos to describe the project to the ones examining the campaign site. Hence, to assess the quality of the campaign several aspects need to be considered. Similar to the assessment of creativity, some of the statements used are negatively formulated. Which statements are negatively formulated are denoted with a (N) in Appendix 2. Statements denoted with a (N) are coded in reverse order.

Lastovicka (1983) studied the quality of commercials, and used statements about relevance, confusion and entertainment for assessment. This study derives some of these statements to assess the quality of crowdfunding campaigns, as campaigns can be seen as commercials for the product or service they represent.

For the sub dimension of relevance, the statement “as I looked through the campaign I thought of reasons why I would support or not support the project” is used. From confusion, this study includes the statement “the campaign was too complex. I am not sure what the project was.”. From entertainment, “the campaign was lots of fun to watch and read”, “I

though the campaign was clever and quite entertaining”, and “the campaign was not just about raising money – it was entertaining me” were derived.

In addition, some sub dimensions from a research paper about information quality assessment are used (Lee et. al., 2002), “appropriate amount”, “believability”, “completeness”, “relevancy” and “understandability”. The statements “the amount of campaign information does not match my needs”, “the amount of campaign information is neither too much or too little”, and “the campaign information is sufficient enough for my need” were taken from appropriate amount. The statements “the campaign information provided on the campaign page is believable”, “the information provided on the campaign page is of doubtful credibility”, “the information provided on the campaign page is trustworthy”, and “the information provided on the campaign page is credible” were taken from believability.

From the sub dimension of completeness, the statement “the information provided on the campaign page is incomplete” is used. From relevancy, the statement “the campaign information is relevant for the project presented” is acquired. Lastly, the statements “the campaign information is easy to understand”, “the meaning of the information provided is difficult to understand”, and “the campaign information is easy to comprehend” are used to assess “understandability”.

In addition, two statements developed specifically for crowdfunding campaigns were included: “When looking at the campaign (including video and images) I believe the campaigner(s) have made an effort presenting in the best way they could” and “the information provided answers questions I had in a good way”.

Similar to the method used to assess reward quality, the quality of campaigns is assessed by using several Likert scale items.

### 5.2.5 Logos and Pathos

To assess logos and pathos, the questionnaire includes items from the logos and pathos scale of measurement by Feltham (1994). This is to assess whether appealing to logic or emotions influence the performance of crowdfunding campaigns. For logos “not rational/rational”, “not informative/informative”, “does not deal with facts/deals with facts”, “not knowledgeable/knowledgeable”, and “not logical/logical” are used. For pathos, the different



phrases are “does not affect my feelings/affects my feelings”, does not touches me emotionally/touches me emotionally”, “is not stimulating/is stimulating”, “does not reach out to me/reaches out to me”, “is not moving/is moving”, and “is not exciting/is exciting”.

These items are assessed using a semantic differential scale of measurement, which is often used to describe a set of beliefs that underline a person’s attitude towards an organization, product or brand (Sreejash et. al., 2014). By using a semantic differential scale, the respondents are asked to rate an attitude object between to bipolar phrases or adjectives (Sreejash et. al., 2014). The attitude object is typically measured on a seven-point rating scale (Sreejash et. al., 2014) – which is also used in this thesis.

#### 5.2.6 Social Orientation

Parhankangas and Renko (2016) used a binary variable to measure whether a campaign was socially oriented or not, where 1 equals social and 0 equals commercial. However, I would argue that commercial campaigns might also have a social orientation, when the objective is both to make profit and to be socially good.

In a study, referenced by Dawes (2008), two different measurements were used to understand the concept of sincerity: A binary scale (yes or no) was answered by one group, while a four-point scale (very sincere, ..., very insincere) was answered by another group. The four-point scale resulted in higher ratings for the perceived sincerity than the binary scale (Dawes, 2008), which might indicate that a four-point scale better capture the degree of perceived sincerity when it might be difficult to put the measured variable into either yes or no. Derived from this, a scale with more than two alternatives is used to assess the degree of social orientation of different crowdfunding campaigns.

For assessing social orientation of campaigns, two five-point Likert scale items are used. The statements to assess are “the project has a social orientation” and “the campaign presents a socially related initiative or venture”.

### 5.2.7 Environmental Orientation

Whether the campaign is environmental oriented or not is measured in the same way as social orientation, with two five-point Likert items. The statements to assess in this case are “the project has an environmental orientation” and “the campaign presents an environmentally related initiative or venture”.

### 5.2.7 Control Variables

Six control variables are included in this thesis; gender of respondents, category of campaign, origin of campaign, gender of campaigners, number of campaigners and whether the campaign has included a video or not. Below is the description of how the variables are measured.

Gender is measured as a binary variable, where 1 is related to female and 0 is related to male, for both gender of respondents and gender of campaigners. This is consistent with previous literature (Frydrych et. al., 2014; Colombo et. al., 2015; Davis et. al., 2017). If there are several campaigners behind the campaign, the presence of female entrepreneurs will be considered as the most important – hence the campaign gets a binary variable equal 1. The data for gender of respondents is collected through their response to the survey, while the gender of campaigners is collected by going through the campaign sites and look for evidence of campaigners’ gender.

The category of campaigns is measured as a binary variable, where 0 relates to the category of design and 1 relates to the category of technology. Origin of the campaign is also measured using a binary variable. In this case, 0 relates to US-based campaigns whereas 1 related to European campaigns. Both the variables are collected by looking at the campaigns on Kickstarter.

The number of campaigners is measured as a continuous variable, similar to previous studies on the variable’s effect on crowdfunding success (Frydrych et. al., 2014). The last control variable, inclusion of a video in the campaign, is measured as a binary variable. Here, 1 related to a video being included in the crowdfunding campaign, whereas 0 is related to no

video on the campaign site. Both variables are gathered by looking at the crowdfunding campaigns for evidence.

All independent variables, as well as the control variables of category, origin, gender of campaigners, number of campaigners and video are assessed when the campaigns are live. The dependent variables are measured after the campaigns are terminated, and the control variable “gender of respondents” is found when collecting all the respondents’ answers after the online survey is finished. Next, I will present the methodology used to analyse these variables and the relationship between them.

## 6 Methodology

In this chapter, the coding of the data set is described as well as how missing data and extreme values are dealt with. Then, the results from the factor analysis are presented. Lastly, the different assumptions for running a regression analysis are examined and evaluated.

### 6.1 Coding

The data collection resulted in 204 responses assessing 96 different crowdfunding campaigns, where 172 of the respondents had answered all questions in the questionnaire. The coding of the respondents, and how to deal with missing and extreme values are described in this section.

For the variables used in the analysis, a codebook was developed, as seen in Table 2. Note that for the items denoted (N) in the rating form in Appendix 2, the coding scheme will be reversed. Hence, 7 will be coded 1, 6 will be coded 2, 5 will be coded 3, and so on.

Table 2: Codebook

Variable	Response	Code
<b>Success of crowdfunding campaign</b>	Percentage of success (measured as funding reached/funding goal)	0-X
<b>Gender of campaigners/Gender of respondents</b>	Male	0
	Female	1
<b>Origin</b>	US	0
	Europe	1
<b>Category</b>	Design	0
	Technology	1
<b>Number of campaigners</b>	Counted	1-X
<b>Video</b>	Do not have a video	1
	Have a video	0
<b>Creativity</b>	Item that fully represent creativity = 7	7
	6	6
	5	5
	4	4
	3	3
	2	2
	Item that do not represent creativity at all = 1	1
<b>Logos</b>	Item that fully represent logos = 7	7
	6	6
	5	5
	4	4
	3	3
	2	2
	Item that do not represent logos at all = 1	1
<b>Pathos</b>	Item that fully represent pathos = 7	7
	6	6
	5	5
	4	4
	3	3
	2	2
	Item that do not represent pathos at all = 1	1
<b>Reward quality</b>	Strongly agree	7
	Agree	6
	Somewhat agree	5
	Nether agree nor disagree	4
	Somewhat disagree	3
	Disagree	2
	Strongly disagree	1
<b>Quality of campaign content</b>	Strongly agree	7
	Agree	6
	Somewhat agree	5
	Nether agree nor disagree	4
	Somewhat disagree	3
	Disagree	2
	Strongly disagree	1
<b>Social orientation</b>	Strongly agree	5
	Agree	4
	Nether agree nor disagree	3
	Disagree	2
	Strongly disagree	1
<b>Environmental orientation</b>	Strongly agree	5
	Agree	4
	Nether agree nor disagree	3
	Disagree	2
	Strongly disagree	1

### 6.1.1 Missing Values

A frequent problem with data collection is missing data (Downey and King, 1998; Saunders et. al., 2016). Downey and King (1998, p.175) present four ways of dealing with this problem:

- a) *Ignore the missing data*
- b) *Omit persons with missing data from the study*
- c) *Omit the persons from the particular analysis using the scale that contains the missing data*
- d) *Find a way to replace the missing data with an estimate of what they might be.*

Removing participants with missing data from either the entire study or the analyses using the missing data can potentially reduce both the power and accuracy of the analysis (Downey and King, 1998). Thus, it is in the best interest of the researcher to find ways to replace the missing data or use as much of the respondents' answers as possible.

Downey and King (1998) found that a threshold level for missing values seemed to be 70% of their items. Based on this, the responses with less than 70% of the data missing are included in the analysis in this study. If more than 70% of the items have missing values, the method of deleting that respondent from the entire study is used (Downey and King, 1998). When using these methods of replacing missing data, the data set used in this study are reduced to 182 assessments, whereas 174 are full assessments and 8 assessments have less than 70% of missing values.

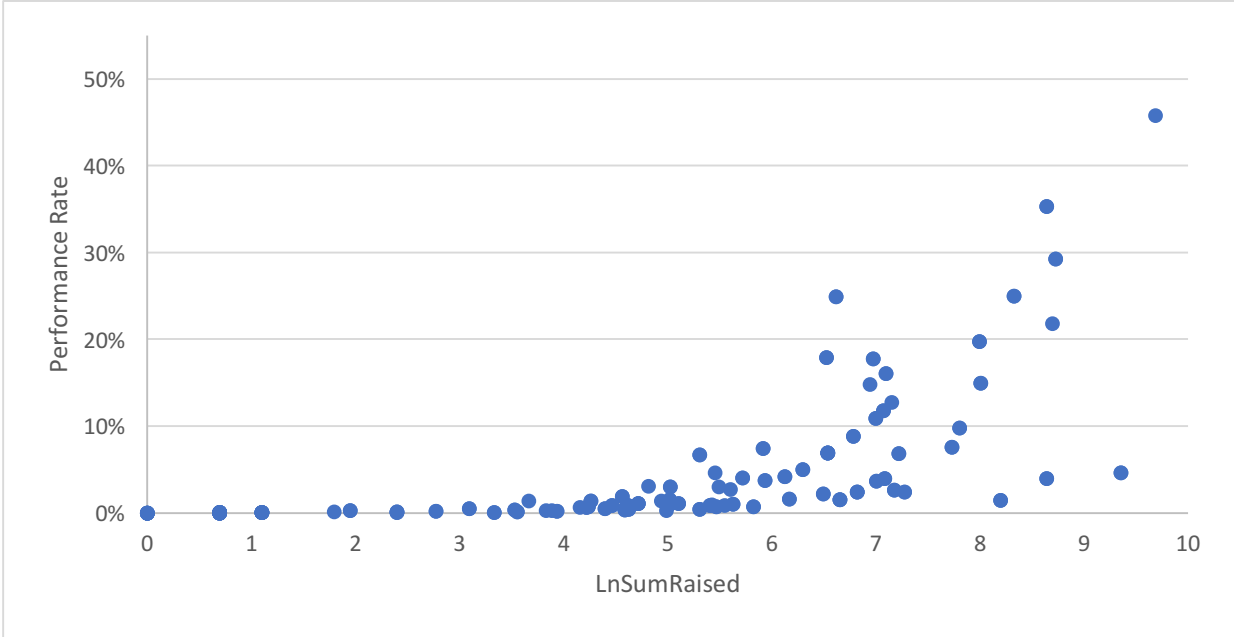
### 6.1.2 Extreme Values

Before the analyses, extreme values are also removed from the data set. After examining the data set, I decided to remove all assessments related to campaigns with the sum raised equal or above USD 30,000. This resulted in two assessments being removed. The assessments were related to the same campaign, which was found to raise significantly more money than the rest of the campaigns. This campaign also had a significantly higher performance rate, hence will be removed from analysis related to the dependent variable of performance rate as well.

Derived from this, the data set is further reduced to 180 usable responses for this study, all of which have performance rates of less than 50% and relatively low sums of funding raised. The overview of the campaigns' performance rates and the Ln of their sums raised can be

found in Figure 10 below. As seen, most of the campaigns have a performance rate of less than 10%, and even 46 out of the 96 campaigns studied have a performance rate of less than 1%.

Figure 10: Overview of Campaigns' Performance Rate and Sum Raised



### 6.2 Factor Analysis

For further analyses, SPSS version 23 is used. The primary purpose of factor analysis is to define the underlying structures among the variables used in the analysis (Sreejash et. al., 2014). Factor analysis can be used as a data reduction technique, where the underlying structures can determine which items can be clustered together into new factors with minimal loss of information (Sreejash et. al., 2014).

To test which factor analysis method is most appropriate, both Shapiro-Wiik and Kolmogorov-Smirnov's normality tests were performed to ensure not-normal distribution. If significance values are higher than 0.05 it indicates normality.

Further, the Kayser-Meyer-Olken (KMO) measure was used to measure the sampling adequacy. KMO test-values greater than 0.6 shows acceptable sampling adequacy, above 0.7 shows good sampling adequacy, more than 0.8 shows very good adequacy and greater than 0.9 shows excellent sampling adequacy (Sreejash et. al., 2014). I will also look at the

Bartlett’s test of sphericity, which tests if there is a significant relationship between the items used in the factor analysis (Sreejash et. al., 2014). If the test is significant, with a level below 0.05, a factor analysis is suitable.

*Table 3: Test of Normality for Performance Rate*

<b>Tests of Normality: Performance Rate</b>						
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Performance rate	.327	182	.000	.453	182	.000
Sum raised	.366	182	.000	.341	182	.000
a. Lilliefors Significance Correction						

*Table 4: Test of Normality for LnSumRaised*

<b>Tests of Normality: LnSumRaised</b>						
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
LnSumDummy	.375	182	.000	.630	182	.000
PerformanceDummy	.469	182	.000	.536	182	.000
a. Lilliefors Significance Correction						

As seen in Table 3 and 4, Shapiro-Wiik and Kolmogorov-Smirnov’s normality tests for both dependent variables have significance values less than 0.05. Hence, the dependent variables in this study are found to be not normal.

*Table 5: KMO and Bartlett’s Test*

<b>KMO and Bartlett’s Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.909	
Bartlett’s Test of Sphericity	Approx. Chi-Square	4975.563
	df	561
	Sig.	.000

As seen in Table 5, the KMO is 0.909, which indicates that this data set is considered excellent for factor analysis. The Bartlett’s test of sphericity is also significant (0.000), which indicates that there is a relationship between the items included in the factor analysis, and thereby a factor analysis is useful.

Non-normality leads to using Principal Axis Factoring and Varimax rotation method with Kaiser Normalization. The results are listed in the following, Table 6.

*Table 6: Factor Analysis - Total Variance Explained*

<b>Total Variance Explained</b>									
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.083	38.480	38.480	12.806	37.665	37.665	6.342	18.653	18.653
2	3.308	9.729	48.209	2.971	8.738	46.403	4.371	12.857	31.510
3	2.878	8.464	56.673	2.610	7.676	54.079	4.176	12.282	43.792
4	2.222	6.536	63.208	1.958	5.759	59.838	3.039	8.939	52.732
5	1.578	4.640	67.848	1.393	4.098	63.937	2.117	6.226	58.957
6	1.426	4.195	72.043	1.153	3.392	67.328	1.957	5.755	64.712
7	1.155	3.396	75.440	.918	2.699	70.027	1.807	5.315	70.027
8	.846	2.489	77.929						
9	.741	2.179	80.108						
10	.635	1.866	81.975						
11	.551	1.622	83.596						
12	.546	1.605	85.202						
13	.474	1.395	86.596						
14	.427	1.257	87.853						
15	.404	1.189	89.043						
16	.384	1.128	90.170						
17	.327	.961	91.132						
18	.316	.930	92.062						
19	.293	.863	92.925						
20	.261	.767	93.692						
21	.256	.752	94.444						
22	.243	.714	95.158						
23	.227	.669	95.827						
24	.203	.597	96.424						
25	.188	.552	96.976						
26	.180	.531	97.507						
27	.141	.414	97.921						
28	.138	.406	98.327						
29	.130	.381	98.708						
30	.110	.323	99.031						
31	.102	.299	99.330						
32	.088	.258	99.589						
33	.077	.226	99.815						
34	.063	.185	100.000						

Extraction Method: Principal Axis Factoring.

Based on the criteria of Eigen values higher than 1, Table 6, total variance explained, indicates I should retain seven factor solutions. These seven factors account for 18.65%, 12.86%, 12.28%, 8.94%, 6.23%, 5.76% and 5.32% of the total variance, respectively. That is, about 70% of the total variance is attributed to these seven factors.



Table 7: Rotated Factor Matrix

Rotated Factor Matrix <sup>a</sup>							
	Factor						
	1	2	3	4	5	6	7
Creativity3				.555			
Creativity4				.720			
Creativity5				.811			
Creativity6				.680			
Creativity7				.682			
Logos2					.699		
Logos3					.661		
Logos4					.707		
Pathos1			.812				
Pathos2			.794				
Pathos3			.715				
Pathos4			.697				
Pathos5			.731				
Pathos6			.658				
Reward Quality1	.845						
Reward Quality2	.693						
Reward Quality3	.767						
Reward Quality4	.827						
Reward Quality5	.736						
Reward Quality6	.785						
Reward Quality8	.701						
Reward Quality9	.536						
Reward Quality10	.801						
Campaign Quality6		.810					
Campaign Quality7		.678					
Campaign Quality8		.780					
Campaign Quality9		.832					
Campaign Quality16		.652					
Campaign Quality17		.590					
Campaign Quality10		.644					
Social Orientation1							.871
Social Orientation2							.916
Environmental Orientation1						.951	
Environmental Orientation2						.881	
Extraction Method: Principal Axis Factoring.							
Rotation Method: Varimax with Kaiser Normalization. <sup>a</sup>							
a. Rotation converged in 6 iterations.							

As Table 7 shows, I am left with seven different factors for the analysis. These item loadings are found by suppressing small coefficients with less than absolute value of 0.5. Which statements are related to each factor are described in the following.

All items measuring reward quality, except item number 7, have sufficient loadings on factor 1. Item number 7 was thereby removed from the further analysis. Factor 1, reward quality,

thereby consists of nine items: “The reward(s) offered provide tangible value”, “the reward(s) offered are unique”, “the reward(s) offered provided value for money”, “the campaign offered sufficient number of alternative rewards”, “the reward(s) offered are attractive and interesting”, “the number of rewards is neither too much nor too little”, “the rewards offered are useful”, “the number of reward(s) offered does not match my needs”, and “the number of reward(s) offered is of sufficient volume”.

For factor 2, campaign quality, item number 6, 7, 8, 9, 10, 16, and 17 have sufficient and consistent loading on the same factor. As mentioned, item number 5 was created for this study only, and was found to load on different factors than what was expected. Therefore, this item was removed for further analysis. Item number 12 and 13 were found to load on the factor related to pathos, hence were removed. Item 19 and 20 were removed due to lack of sufficient loading on any factor. Thereby, item 18 was also removed to ensure consistency of the factors as item 18, 19, and 20 are the only items related to the sub dimension of relevancy. The rest of the items related to campaign quality were removed due to lack of sufficient loading on any factor.

Based on the description above, factor 2, campaign quality, consists of seven items: “The information provided answers to questions I had in a good way”, “the amount of campaign information does not match my needs”, “the amount of campaign information is neither too much or too little”, “the campaign information is sufficient enough for my need”, “the campaign information provided on the campaign page is believable”, “the meaning of the information provided is difficult to understand”, and “the campaign information is easy to comprehend”. These items are related to the sub dimensions “appropriate amount”, “understandability”, and “believability”.

Factor 3 consists of items related to pathos, where all six items are included; “does not affect my feelings/affects my feelings”, “does not touches me emotionally/touches me emotionally”, “is not stimulating/is stimulating”, “does not reaches out to me/reaches out to me”, “is not moving/is moving”, and “is not exciting/is exciting”.

Factor 4 related to creativity. Item 1, 8, and 10 were removed due to lack of sufficient loading on a factor. As mentioned in the operationalization of variables, the items for creativity were divided into two sub dimensions of novelty (item 1-7) and meaningfulness (item 8-10). Since

item 9 was now the only item measuring meaningfulness, this item was also removed to ensure consistency of factor 4. Factor 4, creativity, thereby consists six items: “Fresh/routine”, “conventional/unconventional”, “novel/predictable”, “usual/unusual”, “unique/ordinary”, and “commonplace/original”.

Item 2, 3, and 4 for logos loaded on factor 5, while item 1 and 5 related to logos did not have any sufficient loadings on factors in the analysis. Item 1 and 5 were thereby removed. Hence, factor 5, logos, consists of these three items; “not informative/informative”, “does not deal with facts/deals with facts”, and “not knowledgeable/knowledgeable”.

The two items loading on factor 6, environmental orientation, are “the project has an environmental orientation” and “the campaign presents an environmentally related initiative or venture”.

For factor 7, social orientation, the two loaded items are: “the project has a social orientation” and “the campaign presents a socially related initiative or venture”.

The factors from the factor analysis were then constructed as new variables by taking the average of the items related to each factor. Next, reliability tests were conducted to determine the internal consistency of the constructs’ variables. Cronbach’s Alpha has a value between 0 and 1. The higher value of Cronbach’s Alpha, the more reliable the study. The following tables list the results for the tests.

*Table 8: Reliability of Creativity*

<b>Creativity Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.874	6

*Table 9: Reliability of Logos*

<b>Logos Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.861	3

Table 10: Reliability of Pathos

<b>Pathos Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.956	6

Table 11: Reliability of Reward Quality

<b>Reward Quality Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.937	9

Table 12: Reliability of Campaign Quality

<b>Campaign Quality Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.909	7

Table 13: Reliability of Social Orientation

<b>Social Orientation Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.916	2

Table 14: Reliability of Environmental Orientation

<b>Environmental Orientation Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.958	2

As seen in the tables above, all reliability tests show a Cronbach's Alpha between 0.861 and 0.958 for the new constructs. Hence, the new variables are good values for research.

## 6.4 Regression Analysis

To predict the value of crowdfunding performance based on values of several independent variables, multiple regression analysis is used. Multiple regression allows one to determine the overall fit of the model, as well as the relative contribution of each of the variables in the model (Sreejesh et. al., 2014).

For multiple linear regressions, all major assumptions need to be met; linearity, normality, quality of variance, and no multicollinearity (Sreejash et. al., 2014). Neither of my dependent variables, the performance rate or the sum raised, are normally distributed. Even after using Ln of the sum raised, the data still showed non-normality. To deal with this problem, two dummy variables were created, one for the performance rate and one for the Ln of sum raised.

For performance rate, the dummy was created by dividing the data into either below or above the average performance rate of 5.67%. The dummy was coded 0 for all instances with performance rate below average, and 1 for all instances with performance rate above average.

For amount of funding received, a new variable, LnSumRaised, was created before a dummy dividing the data into categories either below or above the average LnSumRaised, 4.887. The dummy variable for funding received was coded 0 for LnSumRaised below average, and 1 for LnSumRaised above average.

The new dummy variables were used as dependent variables in two logistic regression analyses, one logistic regression for the performance dummy and one logistic regression for the dummy for sum raised. Compared to normal regression analysis, logistic regression is not based on as many strict assumptions, and the regression analysis is robust even though the other assumptions are not met (Sreejash et. al., 2014). In logistic regression, one can predict a categorical dependent variable in terms of one or more categorical or non-categorical independent variables (Sreejash et. al, 2014).

Before running the regression, the data is checked for multicollinearity, the only assumption necessary to be met before running a logistic regression analysis. Multicollinearity is present when variables have too high correlation with each other, hence might impact the results of the regression analysis (Sreejash et. al., 2014). To examine the data for evidence of multicollinearity the correlation matrix is checked for values above 0.7. I will also check the values for the Variance-Inflating Factor (VIF) for all variables.

### 6.4.1 Check for Multicollinearity

Correlation matrixes are used to describe the strength and direction of the linear relationship between two variables. Correlations less than 0.7 are considered fine in this study. For VIF-values, the rule of thumb is that if the value exceeds 10 the variable is said to be highly collinear (Sreejash et. al., 2014).

Table 15: Correlation Matrix

Correlations															
	Perform Dummy	Avg. Creativity	Avg. Logos	Avg. Pathos	Avg. Rewa Qual	Avg. Camp Qual	Avg. Social	Avg. Env.	Gend Resp	Category	Origin	Gend Camp	Numb Camp	Video	
Pearson Correlation	Performance Dummy	1.000	.022	.144	.202	.232	.261	.013	.237	.077	-.216	.190	.382	.251	.282
	Avg. Creativity	.022	1.000	.374	.514	.397	.213	.101	.158	.035	-.186	.012	.063	.117	.007
	Avg. Logos	.144	.374	1.000	.592	.460	.506	.211	.380	-.065	-.130	.109	.148	.219	.142
	Avg. Pathos	.202	.514	.592	1.000	.607	.535	.272	.313	.027	-.134	.087	.230	.305	.113
	Avg. Reward Quality	.232	.397	.460	.607	1.000	.443	.118	.186	.060	-.091	.101	.180	.281	.210
	Avg. Camp. Quality	.261	.213	.506	.535	.443	1.000	.104	.258	.079	-.145	.098	.233	.218	.277
	Avg. Social	.013	.101	.211	.272	.118	.104	1.000	.297	-.021	-.030	-.077	.017	.105	-.044
	Avg. Env.	.237	.158	.380	.313	.186	.258	.297	1.000	-.150	-.080	-.002	.079	.085	-.006
	Gender Resp.	.077	.035	-.065	.027	.060	.079	-.021	-.150	1.000	.082	-.042	.041	.058	.012
	Category	-.216	-.186	-.130	-.134	-.091	-.145	-.030	-.080	.082	1.000	-.119	-.193	.140	-.020
	Origin	.190	.012	.109	.087	.101	.098	-.077	-.002	-.042	-.119	1.000	.228	.156	.144
	Gender Camp.	.382	.063	.148	.230	.180	.233	.017	.079	.041	-.193	.228	1.000	.082	.339
	Number Camp.	.251	.117	.219	.305	.281	.218	.105	.085	.058	.140	.156	.082	1.000	.137
Video	.282	.007	.142	.113	.210	.277	-.044	-.006	.012	-.020	.144	.339	.137	1.000	
Sig. (1-tailed)	Performance Dummy	.	.386	.030	.004	.001	.000	.433	.001	.157	.002	.006	.000	.000	.000
	Avg. Creativity	.386	.	.000	.000	.000	.003	.093	.019	.326	.007	.438	.207	.063	.462
	Avg. Logos	.030	.000	.	.000	.000	.000	.003	.000	.197	.045	.077	.026	.002	.032
	Avg. Pathos	.004	.000	.000	.	.000	.000	.000	.000	.362	.040	.129	.001	.000	.070
	Avg. Reward Quality	.001	.000	.000	.000	.	.000	.062	.007	.218	.117	.094	.009	.000	.003
	Avg. Camp. Quality	.000	.003	.000	.000	.000	.	.088	.000	.151	.029	.100	.001	.002	.000
	Avg. Social	.433	.093	.003	.000	.062	.088	.	.000	.393	.349	.159	.410	.085	.285
	Avg. Env.	.001	.019	.000	.000	.007	.000	.000	.	.025	.148	.491	.151	.133	.471
	Gender Resp.	.157	.326	.197	.362	.218	.151	.393	.025	.	.142	.291	.297	.223	.437
	Category	.002	.007	.045	.040	.117	.029	.349	.148	.142	.	.060	.006	.033	.395
	Origin	.006	.438	.077	.129	.094	.100	.159	.491	.291	.060	.	.001	.020	.030
	Gender Camp	.000	.207	.026	.001	.009	.001	.410	.151	.297	.006	.001	.	.144	.000
	Numb. Camp	.000	.063	.002	.000	.000	.002	.085	.133	.223	.033	.020	.144	.	.036
Video	.000	.462	.032	.070	.003	.000	.285	.471	.437	.395	.030	.000	.036	.	
N	Performance Dummy	172	172	172	172	172	172	172	172	172	172	172	172	172	172
	Avg. Creativity	172	172	172	172	172	172	172	172	172	172	172	172	172	172
	Avg. Logos	172	172	172	172	172	172	172	172	172	172	172	172	172	172
	Avg. Pathos	172	172	172	172	172	172	172	172	172	172	172	172	172	172
	Avg. Reward Quality	172	172	172	172	172	172	172	172	172	172	172	172	172	172

AvgCampQual2	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
AvgSocial2	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
Avg. Env	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
Gender Resp	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
Category	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
Origin	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
Gender Camp	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
Numb Camp	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
Video	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172

Table 16: VIF-values

Coefficients <sup>a</sup>											
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics		
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	-.054	.174		-.310	.757					
	AvgCreativity	-.035	.027	-.105	-1.311	.192	.022	-.104	-.086	.679	1.473
	AvgLogos	-.024	.024	-.089	-1.000	.319	.144	-.079	-.066	.539	1.854
	AvgPathos	-.001	.026	-.002	-.020	.984	.202	-.002	-.001	.385	2.597
	AvgRewardQual	.029	.026	.098	1.122	.264	.232	.089	.074	.572	1.750
	AvgCampQual2	.018	.030	.052	.607	.545	.261	.048	.040	.583	1.715
	AvgSocial2	-.014	.015	-.064	-.901	.369	.013	-.071	-.059	.853	1.173
	AvgEnv	.049	.015	.239	3.194	.002	.237	.246	.210	.773	1.294
	GenderResp	.087	.062	.094	1.390	.167	.077	.110	.091	.935	1.069
	Category	-.168	.061	-.195	-2.766	.006	-.216	-.215	-.182	.869	1.151
	Origin	.049	.060	.057	.820	.413	.190	.065	.054	.898	1.114
	GenderCamp	.245	.077	.237	3.205	.002	.382	.247	.211	.789	1.267
	NumbCamp	.061	.022	.206	2.848	.005	.251	.221	.187	.827	1.209
	Video	.093	.050	.138	1.879	.062	.282	.148	.123	.803	1.246

a. Dependent Variable: PerformanceDummy

As seen in Table 15, neither of the correlations was above the 0.7 threshold level. The highest correlation is 0.607, between pathos and reward quality. The VIF-values are also significantly lower than 10, with the highest VIF value being 2.597 for pathos, seen in Table 16. Hence, the assumption of no multicollinearity is met.

## 6.4.2 Descriptive Statistics

Before the logistic regression analyses are run and interpreted, the descriptive statistics of each variable are presented.

*Table 17: Descriptive Statistics*

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
PerformanceDummy	.2442	.43086	172
AvgCreativity	3.9574	1.29644	172
AvgLogos	4.3876	1.57784	172
AvgPathos	3.1541	1.74764	172
AvgRewardQual	3.8908	1.43063	172
AvgCampQual2	5.0548	1.24562	172
AvgSocial2	4.1453	1.99615	172
AvgEnv	3.4535	2.08816	172
GenderResp	.67	.470	172
Category	.5233	.50092	172
Origin	.5233	.50092	172
GenderCamp	.2209	.41608	172
NumbCamp	1.6744	1.44240	172
Video	.7791	.63800	172

## 7 Results

The results are presented first for the model with the dummy of performance rate as the dependent variables, second for the model with the dummy for Ln of sum raised as the dependent variable.

### 7.1 Model 1: Performance Rate

As seen in Table 18, all 180 cases were used in this logistic regression analysis, including the cases with missing data.

To assess the model's fit and predictive ability, Nagelkerke  $R^2$  is used. The closer the values of  $R^2$  to 1, the better fit of the model (Sreejash et. al., 2014). As seen in Table 19, the Nagelkerke  $R^2$  in this case is 0.454, which indicates that the model explains about 45% of the outcome.



Table 18: Case Processing Summary - Model 1

Case Processing Summary			
Unweighted Cases <sup>a</sup>		N	Percent
Selected Cases	Included in Analysis	172	95.6
	Missing Cases	8	4.4
	Total	180	100.0
Unselected Cases		0	.0
Total		180	100.0

a. If weight is in effect, see classification table for the total number of cases.

Table 19: Model Summary - Model 1

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	128.714 <sup>a</sup>	.305	.454

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Table 20: Variables in the Equation - Model 1

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	GenderResp	.741	.519	2.034	1	.154	2.097
	Category	-1.625	.546	8.852	1	.003**	.197
	Origin	.326	.493	.437	1	.509	1.386
	GenderCamp	1.338	.508	6.924	1	.009**	3.811
	NumbCamp	.434	.162	7.136	1	.008**	1.543
	Video	1.014	.557	3.316	1	.069*	2.756
	AvgCreativity	-.274	.220	1.550	1	.213	.761
	AvgLogos	-.266	.211	1.584	1	.208	.767
	AvgPathos	.000	.206	.000	1	.998	1.000
	AvgRewardQual	.309	.242	1.635	1	.201	1.362
	AvgCampQual2	.160	.265	.366	1	.545	1.174
	AvgSocial2	-.171	.126	1.860	1	.173	.843
	AvgEnv	.401	.124	10.398	1	.001**	1.493
	Constant	-3.866	1.460	7.006	1	.008**	.021

a. Variable(s) entered on step 1: AvgCreativity, AvgLogos, AvgPathos, AvgRewardQual, AvgCampQual2, AvgSocial2, AvgEnv.  
 \*\* significant on p<0.05  
 \* significant on p<0.10

As seen in Table 20, category of campaign, gender of campaigners, and number of campaigners are found to significantly ( $p<0.05$ ) affect the performance of the campaigns. The results also indicate that females have a positive influence on performance rate, consistent with Frydrych and his colleagues (2014), Colombo and his colleagues (2015), and Davis and his colleagues (2017). Frydrych and his colleagues (2014) also found the number of

campaigns influencing performance, similar to what my results indicate. Lastly, my results indicate campaigns within the category of design perform significantly better than campaigns within the category of technology.

Furthermore, environmental orientation is found to have significant influence on performance rate ( $p < 0.05$ ). The fact that environmental orientation affect performance rate is consistent with Calic and Mosakowski (2016), but contradictory to what Hörisch (2015) found in his study – that environmental orientation was not significant.

Furthermore, video is found to have a significant relationship with performance, on a slightly lower significant level ( $p < 0.10$ ). Video was found by several other researchers to have an impact on success (Mollick, 2013; Mollick, 2014; Hörisch, 2015; Davis et. al., 2017; Bi et. al., 2017), which is consistent with the finding in my study. Frydrych et. al. (2014), on the other hand, found video to be not significant and argued that this is now a requirement for campaigns and not something to differentiate campaigns from each other.

## 7.2 Model 2: With LnSumRaised Dummy

The results of this logistic regression are found in Tables 21, 22 and 23 below. Similar to model 1, model 2 also uses all 180 cases in the regression analysis, as seen in Table 21.

Compared to model 1, this model explains less of the variation in the outcome than for model 1. Nagelkerke  $R^2$  is 0.294, which indicates that this model explains roughly 30% of the variation in the outcome. This result is presented in Table 22.

As seen in Table 23, category was found to have a significant influence on the sum raised on a significant level of  $p < 0.05$ . Campaigns within design raised significantly more money than technology campaigns, similar to what was found in model 1 in this study.

Gender of campaigners and reward quality were also found to have a significant influence on the sum of raised, based on a slightly lower significant level of  $p < 0.10$ . Similar to my results in model 1, model 2 also indicate that females have a positive relation to the sum raised, which is consistent with findings from several other researchers (Frydrych et. al., 2014; Colombo et. al., 2015; Davis et. al., 2017). Reward quality was not yet studied in any of the

papers I assessed, but number of rewards was found by many others to have a positive effect on performance (Mollick, 2013; Calic and Mosakowski, 2016; Hobbs et. al., 2016; Kraus et. al., 2016).

Table 21: Case Processing Summary - Model 2

<b>Case Processing Summary</b>			
Unweighted Cases <sup>a</sup>		N	Percent
Selected Cases	Included in Analysis	172	95.6
	Missing Cases	8	4.4
	Total	180	100.0
Unselected Cases		0	.0
Total		180	100.0

a. If weight is in effect, see classification table for the total number of cases.

Table 22: Model Summary - Model 2

<b>Model Summary</b>			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	192.561 <sup>a</sup>	.219	.294

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Table 23: Variables in the Equation - Model 2

<b>Variables in the Equation</b>							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	GenderResp	.048	.382	.016	1	.899	1.050
	Category	-1.213	.369	10.824	1	.001**	.297
	Origin	.036	.368	.009	1	.923	1.036
	GenderCamp	.971	.519	3.500	1	.061*	2.640
	NumbCamp	.168	.151	1.231	1	.267	1.183
	Video	.458	.357	1.644	1	.200	1.581
	AvgCreativity	.263	.164	2.562	1	.109	1.301
	AvgLogos	.058	.149	.151	1	.697	1.060
	AvgPathos	-.192	.159	1.462	1	.227	.825
	AvgRewardQual	.276	.162	2.914	1	.088*	1.318
	AvgCampQual2	.013	.182	.005	1	.945	1.013
	AvgSocial2	-.009	.096	.008	1	.928	.991
	AvgEnv	.099	.095	1.085	1	.298	1.104
Constant	-2.055	1.111	3.420	1	.064*	.128	

a. Variable(s) entered on step 1: AvgCreativity, AvgLogos, AvgPathos, AvgRewardQual, AvgCampQual2, AvgSocial2, AvgEnv.

\*\* significance level  $p < 0.05$

\* significance level  $p < 0.10$

## 8 Discussion

Based on the regression results in the previous chapter, all hypotheses in this study are either fully or partly rejected.

**H<sub>1</sub>** - the greater the perceived creativity of the project by the potential funders, the greater the performance of the crowdfunding campaign - is fully rejected. The data analyses failed to show a significant relationship between creativity and either the performance rate or the sum of funding received. This is contradictory to previous research on crowdfunding success, where creativity was found to affect the success of campaigns (Calic and Mosakowski, 2016; Davis et. al., 2017).

One possible explanation is the lack of campaigns with good performances or significant sums raised in the data set. In this study, all the campaigns included in the analysis had a success rate of less than 50% of the funding target. This might be an indication that creativity only impacts on the difference between unsuccessful and successful campaigns, not between the performance range of campaigns with less than 50% of their funding goals met. Another explanation can be that perceived creativity is not as important as found by Calic and Mosakowski (2016) or Davis and his colleagues (2017), and that other factors might have a larger impact when included in the study.

**H<sub>2</sub>** - the greater perceived quality of rewards offered by the potential funders, the greater the performance of the crowdfunding campaign - is partly rejected. Quality of rewards was not found to significantly affect the performance rate. However, as seen in Table 23, reward quality was found to have a positive influence on the sum raised with a significant level of  $p < 0.10$ .

One explanation for why reward quality has an impact on sum raised, relates to what previous researchers have found. Some of the questions regarding reward quality in this study are related to “appropriate amount”, thus some aspects of reward quality can be linked to “number of rewards” which previous research has found to impact crowdfunding campaigns’ success (Mollick, 2013; Calic and Mosakowski, 2016; Hobbs et. al., 2016; Kraus et. al., 2016). On the other hand, Hörisch (2015), did not find number of rewards to have a significant impact, and argued reward quality was more important.

Since reward quality was found to impact the sum raised, and not the performance rate, the target goal of the campaigns might reflect high quality rewards. It is possible that good quality of rewards attracts more money, since more people want to exchange their money with the rewards offered. However, campaigns that have higher quality of rewards might also have a higher target goal, which might reflect why reward quality does not have a significant impact on the performance rate.

**H<sub>3</sub>** - The greater the perceived quality of the campaign by the potential funders, the greater the performance of the crowdfunding campaign - is fully rejected. The factor campaign quality consists of the sub dimensions “appropriate amount”, “believability”, and “understandability”. This indicates that even though the campaign is perceived as believable, understandable, and having sufficient information, the product or venture the campaign are trying to raise funds to might not be perceived as a project worth supporting. This relates to the fact that a high-quality campaign can represent a low-quality project and vice versa. Hence, the quality of the campaign might not reflect the quality of the project the campaign is collecting funds to. Therefore, how potential funders assess the campaign’s landing page on a crowdfunding platform does not necessary predict how well the project is perceived, and thereby funded.

**H<sub>4</sub>** - The degree to which the campaign appeals to the potential funders’ logic, have positive impact on the performance of the crowdfunding campaign - is fully rejected. The same was found for **H<sub>5</sub>** - The degree to which the campaign appeals to the potential funders’ emotions, have positive impact on the performance of the crowdfunding campaign. Neither logos nor pathos was found to have a significant relationship with the performance rate or the sum raised. This finding might be attributed to the lack of high performance campaigns in my data set, and whether a project has logical or emotional appeal will not distinguish campaigns on the lower level of performance. However, it might still have an impact on crowdfunding campaigns either directly or indirectly through other factors of crowdfunding success.

**H<sub>6</sub>** - The degree to which the campaign is perceived as socially oriented by the potential funders, has positive impact on the performance of the crowdfunding campaign - is fully rejected. Contradictory to both Calic and Mosakowski (2016) and Hörisch (2015), my study found that social orientation did not affect crowdfunding performance. One explanation might be that campaigns with social orientation often are related to local problems, and

crowdfunding to a broader audience might not increase the sum raised or the performance rate, as the project is not related to the bigger crowd. It might also reflect that social orientation projects might be perceived as less professional; hence, the hypothetical funders might have decreased trust in the project's potential. Trust between the funders and the campaigner(s) is believed to have a strong impact on the likelihood of crowdfunding success (Schwienbacher and Larralde, 2010; Agrawal et. al., 2013; Zheng et. al., 2014).

Furthermore, the lack of influence by social orientation could be caused by two opposing forces being at play. First, there might be funders who wish to support social campaigns and find campaigns with social orientation to be favourable. In this case, social orientation has a positive impact on the performance of a crowdfunding campaign. Second, there might be funders who actively avoid campaigns with social orientation because they either interfere with what the potential funder originally intended or what was perceived as the original intension of the crowdfunding platform. Potential funders might pursue Kickstarter campaigns to buy consumer goods, hence social orientation interfere with that intention. In addition, the Kickstarter platform was originally dedicated to the promotion of creative ideas, hence campaigns with social orientation might be seen to unfairly compete for funding when using the same crowdfunding platform. In that case, there is a negative relationship between social orientation and the performance of crowdfunding campaigns. In this study, both effects might be in play, essentially cancelling each other. Hence, social orientation has neither a negative or positive influence on the performance of crowdfunding campaigns.

**H<sub>7</sub>** - The degree to which the campaign is perceived as environmentally oriented by the potential funders, has positive impact on the performance of the crowdfunding campaign - is partly supported. Environmental orientation was found to influence the performance rate of the campaigns on a  $p < 0.05$  significance level. However, environmental orientation was found to not have any significant impact on the sum of funding raised. Firstly, environmental orientation might impact the performance rate because people are concerned with the environment, and want to support initiatives that try to deal with issues regarding the environment and climate change.

On the other side, environmental orientation might not impact the sum raised as the environmental initiatives in this study might not be logical to the potential funders, do not present a project that is expected to work properly, or have other factors pulling in the

negative direction. Environmental orientation in itself might not raise more money if the project is perceived to not be working, or the potential funders do not trust the entrepreneur to make the product in the end.

The different findings for the performance rate and the sum raised might also suggest that while people are willing to contribute to environmental campaigns, they are not willing to provide large sums. This can be linked to that younger people with limited resources are more supportive of such initiatives, or that people are uncertain about the viability of such projects. Hence, while they are willing to support them in principle (performance rate) they do so with relatively small contributions (sum raised).

Overall, the results might be affected by the fact that none of the studied campaigns had a performance rate above 50%, hence none of them were successful in the terms of an “all-or-nothing” Kickstarter campaign. In addition, all campaigns had relatively small sums of funding raised. The low-values of the dependent variables may present campaigns that received support from immediate circle of friends and family, who may be less critical towards level of creativity, quality of campaigns or whether the campaigns use rational or emotional appeal. Family and friends support the entrepreneur out of personal relations, loyalty and commitment (Udell and Berger, 1998; The World Bank, 2013). While the variables studied in this thesis might influence potential funders from outside the campaigners’ immediate social circle, as these might be more critical towards campaign components, it might not influence friends and family of the campaigners. Accordingly, this essentially suggests that overall the campaigns examined did not manage to communicate their existence to wider circles of the public, which may have evaluated their campaign along the dimensions studied.

To summarize the finding of the logistic regression analyses on the research hypotheses in this study, an overview is presented in Table 24.

Table 24: Summarize of Hypotheses Testing

Hypothesis	Findings
H <sub>1</sub>	Rejected
H <sub>2</sub>	Partly supported, sig. (p<0.10) impact on sum raised.
H <sub>3</sub>	Rejected
H <sub>4</sub>	Rejected
H <sub>5</sub>	Rejected
H <sub>6</sub>	Rejected
H <sub>7</sub>	Partly supported, sig. (p<0.05) impact on performance rate.

## 9 Conclusion

The purpose of this study was to explain why some campaigns perform better than others. Moreover, this thesis aimed to add on the existing knowledge and contribute with new perspectives in the field of crowdfunding research.

Crowdfunding provides a great opportunity for entrepreneurs to raise funds, to research if it is an interest in their product or venture, and market their product to potential customers. Understanding how to best take advantage of the opportunity that crowdfunding gives is therefore important.

Like previous studies, my control variables of gender of campaigners, number of campaigners, and inclusion of a video were found to have a positive influence on the performance rate of crowdfunding campaigns. Additionally, environmental orientation was found to have a positive influence on the performance rate, and reward quality was found to have a positive relationship with the amount of funding raised. Another finding is that which category the crowdfunding campaign belonged to, has impact on both the performance rate and the sum raised.

### 9.1 Contributions

Previous researchers have mainly focused on quantitative features of crowdfunding campaigns and typically harvested official data from crowdfunding platforms when examining crowdfunding success. This study contributes to understanding crowdfunding by being among the first to collect people's perceptions of crowdfunding campaigns as the basis for analysis.



In addition, logos and pathos are not found to be mentioned in other articles related to crowdfunding – and thereby this thesis introduces these concepts for crowdfunding researchers to use in further studies. Neither of the factors were found to have an impact on the performance rate or the sum raised in this thesis. However, further studies need to be conducted to ensure this is the case.

Lastly, the data set only included campaigns with less than 50% funding received and relatively small funds raised. Even though this was unintentional, analysing only low performing campaigns can provide valuable insight into why most crowdfunding campaigns fail, compared with other researchers that have studied why some might succeed. By analysing the difference between low performance rates, one might get an understanding of how difficult it is to go beyond a 50% performance rate – and that the factors in this study might not be sufficient to understand the complexity of successful crowdfunding campaigns.

## 9.2 Limitations

Limitations of the data set have had an impact on the analyses and results in this study. The factors examined could not be connected to success, but rather to the performance level, as neither of the campaigns in this study was successful. As described, the data set only included campaigns with less than 50% funding received and relatively small funds raised. A scatter plot between performance rate and the Ln of sum raised can be seen in Figure 10. Most of the campaigns are below a 10% level of performance, and 46 out of the 96 campaigns studied had a performance level below 1%.

There might be several explanations for the limited data set. Firstly, two of the criteria for collecting campaigns were that less than 15% of the funding goal should have been raised at the time of collection, and that the campaign should have finished within a month of collection due to the time limit of this thesis. Colombo and his colleagues (2014) found that early backers and the early amount of funding raised were important indicators for how the campaign would perform. Since all the campaigns derived had received relatively small amounts of funding and limited backers at the time of collection, this can be one of the main explanations for the limited variance in performance rates among the collected campaigns.

Secondly, based on Rogers' adaption curve (Rogers, 2010), the campaigners and funders today have different characteristics than before, and one might expect that there are more entrepreneurs and other initiating crowdfunding campaigns than before. Hence, the projects posted on a crowdfunding platform might be of a wider variety of professionalism and scope. Previous research has found that crowdfunding campaigns typically either succeed or fail by a large amount (Mollick, 2014). When assessing only 100 different campaigns, it is therefore a significant risk that all campaigns collected have limited performance rates and low sums of funding received.

Furthermore, due to self-selection and snowball sampling methods, I had limited control of who responded to which campaigns. Hence, this study cannot examine if there is any relationship between who responded and the results found in the analysis. This might limit the validity and reliability of the results, as the quality of my data decreases.

### 9.3 Implications

The results in this thesis offer several implications for entrepreneurs and others that want to use crowdfunding to initiate a project, as well as policy makers that want entrepreneurs to succeed.

The analyses indicate that environmental orientation and reward quality affect performance of a crowdfunding campaign, either the performance rate or the sum raised. Creators of crowdfunding campaigns should thereby take these findings into concern. Firstly, by thinking about how their project can be related to solving environmental issues. Secondly, by providing quality of the rewards they offer as means to attract more supporters.

Like other studies, inclusion of a video was also found to have an impact on performance. However, as Frydrych et. al. (2014) suggests, I will argue that including a video is more a requirement than something that helps to differentiate a campaign from the rest. Therefore, campaigners should make sure to include a video regardless of the project they are trying to launch. Video is a tool to communicate the message of the campaign in a good way.

However, the most important finding might be that there were few factors that had significant impact. Hence, there is more to crowdfunding than just the features visible on the campaign

site. One can imagine that the degree of marketing and engagement around the campaign might be a stronger indication of how well the campaign will perform and how much money will be raised. Therefore, people that want to initiate a crowdfunding campaign must not underestimate the effort required, and be aware that crowdfunding is a complex activity that requires extensive work.

I would also argue that there is a policy implication of these findings. Today, crowdfunding is not something most people use or are engaged with. Therefore, it requires extensive effort by campaigners to get people to even look at their crowdfunding initiative's landing page on a platform. Hence, how to market the campaign's landing page might be a stronger predictor of performance compared to assessments of the landing page itself. However, if more people started to use crowdfunding and it was "normal" to check crowdfunding platforms to evaluate which project you wanted to fund – factors of the crowdfunding campaign itself would have a stronger impact on the performance of the campaigns. Activities or policies that attract more people to crowdfunding platforms might therefore enhance the effect of the campaign itself – and entrepreneurs and others could be more concerned about making an informative and engaging campaign page, rather than use their energy on marketing it in other media.

#### 9.4 Further Studies

This study has tested seven hypotheses of crowdfunding campaign performance by using a data set with low performance campaigns from the categories of "technology" and "design" and assessments by Norwegian business students. I would argue that more research using people's assessments of crowdfunding campaigns is needed. However, the campaigns collected should have a wider variety of performance and the respondents assessing the campaigns should be better representatives of the actual funders of crowdfunding campaigns.

The limitations by the lack of variance between the campaigns should be a concern for further studies. If possible, I suggest that the campaigns are all collected at their first day of launch, assessed when they are live, and that the performance rates are collected when they are terminated. By adapting this method, the campaigns collected will not be influenced by the lack of early backers or limited early funding, which were perceived as the main explanations for a data set without successful campaigns in this study.

Next, Category was found to have a significant positive relationship with both the performance rate and the sum raised, seen in Table 20 and 23. Further research might deliberate on this finding, and use additional campaign categories when studying performance level. In addition, the introduced concepts of logos and pathos should be interesting to study in a context with a wider variety of performance rate.

Lastly, further research is recommended to use other collection methods to increase control of respondents to the survey. Also, to ensure a complete data set, it is advised that further research accounts for enough time to complete collection and assessments of sufficient campaigns.

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## Appendix

### Appendix 1: Literature Review Table

<i>Author (year)</i>	<i>Dependent variable</i>	<i>Independent variable</i>		<i>Context of study</i>	<i>Theoretical assumptions</i>	<i>Type of paper</i>
		<i>Which?</i>	<i>Influence</i>			
<i>Agrawal, Catalini and Goldfarb (2011)</i>	Decision to fund a crowdfunding campaign	*Visibly accumulates capital on site *Local investors *Friends and family	Positive Positive Positive	34 entrepreneurs who successfully raised \$50,000 on Sellaband	Localness of social networks	Qualitative
<i>Bi, S., Lie, Z. and Usman, K. (2017)</i>	Funder's decision to invest in project	*Introduction word count *Video *Number of links *Number of reviews	Positive Positive Positive Positive	Derived crowdfunding projects from Zhongchou.com (a Chinese CF site) in the categories of Science & technology, entertainment, agriculture and art.	Elaboration likelihood model	Quantitative
<i>Calic, G. and Mosakowski, E. (2016).</i>	Success of crowdfunding campaign (measured as both goal attainment and amount contributed per backer)	*Social orientation *Environmental orientation *Perceived legitimacy *Product creativity	Positive Positive Positive Positive	Projects within the categories of technology, film or video from Kickstarter.com.	Social entrepreneurship	Quantitative
<i>Colombo, Franconi and Rossi-Lamastra (2014)</i>	Success of crowdfunding campaign (measured as a dummy variable where 1 is funding is greater or equal to the target capital; 0 otherwise)	*Early backers *Early capital *Internal social capital *External LinkedIn *Duration *Visuals (number of pictures or videos) *External links *Target capital *Male  Type of reward: *Ego Boosting *Community Belonging *Customized	Positive Positive Positive  N.s. N.s. Positive  N.s. Negative Negative  Negative Positive  N.s.	669 crowdfunding projects from Kickstarter.com, in four categories; design, technology, film and video, and video games.	Observational learning  Theory of social capital	Quantitative
<i>Davis, B. C., Hmieleski, K. M., Webb, J. W, and Coombs, J. E. (2017)</i>	Crowdfunding success (measured by students' investment and their prediction of success)	*Positive affective reactions *Perceived product creativity *Perceive entrepreneur to be passionate	Positive Positive Positive	102 students assessed ten different product-based crowdfunding pitches drawn directly from Kickstarter.com. Used multilevel analysis.	Affective events theory	Quantitative

<i>Frydrych, Bock, Kinder and Koeck (2014)</i>	Success of crowdfunding campaigns (measured by funding ratio)	*Funding target *Duration *Video *Pair of entrepreneurs * Females	Negative Positive N.s. Positive Positive	Data from reward-based crowdfunding campaigns at Kickstarter.com.	Social network theory  Resource-based view (RBV)	Explorative empirical research
<i>Gerber and Hui (2013)</i>	Motivation to become a supporter  Deterrents for participation in crowdfunding for supporters	*Collect rewards *Help others *Be part of a community *Support a cause  *distrust of creators' use of money	All positive	Semi-structured interviews with 83 US-based participants from the crowdfunding community (Kickstarter, Indiegogo, RocketHub)	Online philanthropic behaviour  Online consumer behaviour	Qualitative
<i>Hobbs, J., Grigore, G. and Molesworth, M. (2016)</i>	Crowdfunding success (by measuring if campaigns met their target financial goal or not)	*number of rewards *updates *campaign length *number of campaigners *Amount of search results on Google *Reward quality *Pitch quality	All positive	100 creative crowdfunding campaigns within the film and video category on Kickstarter.com.	Network management theory	Quantitative
<i>Hörisch, J. (2015)</i>	Success of crowdfunding campaigns (measured by funding ratio)	*Environmentally oriented *Non-profit organization *Target level *Video *Duration *Project offer *Fixed target	N.s. Positive  Negative Positive Positive N.s. Positive	585 crowdfunding projects from Indiegogo.com.	Contract failure theory  Rational choice theory  Information economics	Quantitative
<i>Koch and Siering (2015)</i>	Success of crowdfunding campaigns (measured as a binary variable of reaching funding goal or not)	*Depth of project description *Related images or videos *Project updates *Size of goal *Founder has backed other projects *Founder have experience with creating other projects *Duration *Facebook-friends	Positive Positive Positive N.s. Positive N.s. Positive N.s.	The latest 1000 projects from Kickstarter.com as of 10/28/2014.	Media richness theory  Concept of reciprocity (social capital theory)	Quantitative
<i>Kraus, S., Richter, C., Brem, A., Cheng, C-F. and Chang, M-L. (2016)</i>	Success of crowdfunding campaigns (measured by funding ratio)	*Web presence *Number of backers *Updates and blog entries *Number of different rewards/incentives	Positive Positive Positive Positive	446 reward-based crowdfunding campaigns from VisionBakery (Germany).	Theories of communication	Quantitative

		*Comments	Positive			
<i>Kuppuswamy, and Bayus (2015)</i>	Backers added in a day	*First week *Last week *After reached goal *Other projects have large number of backers *Amount of other active projects *Updates	Positive Positive Negative N.s.  Negative  Positive	Data from campaigns from Kickstarter.com, excluding projects with zero backers or with duration less than 21 days.	Deadline-effect  Kickstarter-effect: as a project nears the end, can be a flurry of activity that pushes it over its target	Quantitative
<i>Lehner, O. M. (2013)</i>	Crowdfunding success	*Reward *Laws and regulations *Business model *Legitimacy of business ideas *Participation and control of funders	Positive Positive  Positive Positive Positive		Social enterprises  Network theory	Conceptual
<i>Meer (2014)</i>	Success of campaign (measured by the ratio of received funding)	*Price of giving (price of donation + other costs, tax etc.) *total donation	*no effect (not significant)  *more competition had negative effect	Data from DonorsChoose.org, Projects with missing covariates are also dropped, leaving 371,906 observations, of which 258,251 (69.4 percent) are funded; 84.3 percent of projects had any donations.	The effect of tax preferences  Price elasticity	Quantitative
<i>Mollick, E. (2013)</i>	Success of crowdfunding campaigns (measured by reaching the pre-set goal of financing)	*Entrepreneur has previous successful projects *Third-party endorsement *Video or prototype *Facebook-friends *Duration *Featured by Kickstarter *Rewards offered	Positive  Positive Positive Positive N.s. Positive  Positive	Examined 2101 crowdfunding projects that matched the characteristics of traditional VC-backed ventures (taken from Kickstarter.com)	VC investment decisions	Quantitative
<i>Mollick, E. (2014)</i>	Success of crowdfunding campaigns (measured by reaching the pre-set goal of financing)	*Featured on platform *Include a video *Facebook friends *Quick update *Spelling errors *Duration	Positive  Positive Positive Positive N.s. Positive	Data from reward-based crowdfunding campaigns started by US residents on Kickstarter.com	Theories about investment decisions; higher project quality leads to higher investments.	Quantitative
<i>Parhankangas, A. and Renko, M. (2016)</i>	Success of crowdfunding campaign (measured as a binary variable of funding goal reached or not)	*Concrete language *Precise language *Interactive style *Use of language high in psychological distancing	Positive Positive Positive Positive  Only significant for social campaigns, not commercial	656 commercial and social campaigns on Kickstarter.com, only campaigns with videos containing verbal communication.	Language expectancy theory  Signalling theory	Quantitative

<i>Schwienbacher, A., &amp; Larralde, B. (2010)</i>	Motivation for supporters of crowdfunding campaigns	*Earn money *Help build a start-up *Trust in entrepreneur/project *Extend their network	Negative Positive Positive Positive	Survey of the funders of the project Media No Mad (equity crowdfunding, without intermediary platform)	Risk management  Wisdom of the crowd	Case study – survey
<i>Ward, C., &amp; Ramachandran, V. (2010)</i>	Number of people investing in the project at a time t.	*Demand for other projects *Number of comments *Number of blog updates *On a top 5-chart *Number of investments last week *Project age (in weeks) *fraction of funding goal reached *unique page views of platform	Positive (small) Positive Positive Positive N.s. Negative Positive Positive	Data from Stellaband.com, capturing a total of 86,766 investment transactions	Group behaviour  Peer-effects	Quantitative
<i>Wu, Wang and Li (2015)</i>	Crowdfunding success (measured by the number of backers and the number of likes)	*Frequency of announcements *Amount of highest bid	Positive Positive	192 projects collected on a Chinese crowdfunding platform, demohour.com.	Signalling theory	Quantitative
<i>Zheng, H., Li, D., Wu, J., and Xu, Y. (2014)</i>	Crowdfunding success (measured by reaching pre-set funding goal or not)	*Social network ties *Obligations to fund other entrepreneurs *Shared meaning between entrepreneur and supporters *Culture	Positive Positive Positive Positive	607 projects from Kickstarter (US), and 310 projects from demohour.com (China).	Social capital theory	Quantitative

## Appendix 2: Rating Form

### Introduction

Thank you for taking your time to answer this questionnaire about crowdfunding campaigns. It should take about 10 minutes to complete the questionnaire, and I am very grateful for your contribution.

I am currently writing my master thesis about crowdfunding. By answering this questionnaire, you will contribute to a deeper understanding of what makes crowdfunding campaigns successful.

Please answer all questions as truthfully and accurately as possible. There is no right or wrong answers, so mark the answers you think is the most appropriate.

Data will be anonymized and treated as anonymous responses.

If you have any questions, please contact me by using this email address:

[mia.harboe@hotmail.com](mailto:mia.harboe@hotmail.com).

### GENERAL QUESTIONS

Age: WRITE RESPONSE

Gender: male/female

University: WRITE RESPONSE

Have you heard of crowdfunding before today: yes/no

Have you financially supported a crowdfunding campaign before: yes/no

Have you made and did you run your own crowdfunding campaign before: yes/no

### NAME OF CAMPAIGN

Please open the link you received by email (start with the first one), review it and then answer the rest of this questionnaire.

Name of campaign you are reviewing: WRITE RESPONSE

## CREATIVITY

Please rate the campaign on the following ranges of attributes.

Dull	1	2	3	4	5	6	7	Exciting
Fresh	1	2	3	4	5	6	7	Routine (N)
Conventional	1	2	3	4	5	6	7	Unconventional
Novel	1	2	3	4	5	6	7	Predictable (N)
Usual	1	2	3	4	5	6	7	Unusual
Unique	1	2	3	4	5	6	7	Ordinary (N)
Commonplace	1	2	3	4	5	6	7	Original
Trendsetting	1	2	3	4	5	6	7	Warmed Over (N)
Average	1	2	3	4	5	6	7	Revolutionary
Nothing Special	1	2	3	4	5	6	7	An Industry Model

## LOGOS AND PATHOS

Please check the box which you feel best describe the campaign you just viewed.

Not rational	1	2	3	4	5	6	7	Rational
Not informative	1	2	3	4	5	6	7	Informative
Does not deal with facts	1	2	3	4	5	6	7	Deals with facts
Not knowledgeable	1	2	3	4	5	6	7	Knowledgeable
Not logical	1	2	3	4	5	6	7	Logical
Does not affect my feelings	1	2	3	4	5	6	7	Affects my feelings
Does not touch emotionally	1	2	3	4	5	6	7	Touches me emotionally
Is not stimulating	1	2	3	4	5	6	7	Is stimulating
Does not reach out to me	1	2	3	4	5	6	7	Reaches out to me
Is not moving	1	2	3	4	5	6	7	Is moving
Is not exciting	1	2	3	4	5	6	7	Is exciting



REWARD QUALITY

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The reward(s) offered provide tangible value	1	2	3	4	5	6	7
The reward(s) offered are unique	1	2	3	4	5	6	7
The reward(s) offered provide value for money	1	2	3	4	5	6	7
The campaign offers sufficient number of alternative rewards	1	2	3	4	5	6	7
The rewards offered are attractive and interesting	1	2	3	4	5	6	7
The number of rewards is neither too much or too little	1	2	3	4	5	6	7
The rewards offered is relevant for the campaign	1	2	3	4	5	6	7
The rewards offered are useful	1	2	3	4	5	6	7
The number of reward(s) offered does not match my need (N)	1	2	3	4	5	6	7
The number of rewards offered is of sufficient volume	1	2	3	4	5	6	7

QUALITY OF CAMPAIGN CONTENT

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
When looking at the campaign (including video and images), I believe the campaigner(s) have made an effort presenting in the best way they could	1	2	3	4	5	6	7
The information provided answers questions I had in a good way	1	2	3	4	5	6	7
The amount of campaign information does not match my needs (N)	1	2	3	4	5	6	7
The amount of campaign information is neither too much or too little	1	2	3	4	5	6	7
The campaign information is sufficient enough for my need.	1	2	3	4	5	6	7
The campaign information provided on the campaign page is believable.	1	2	3	4	5	6	7
The information provided on the campaign page	1	2	3	4	5	6	7

is of doubtful credibility (N)							
The information provided on the campaign page is trustworthy	1	2	3	4	5	6	7
The information provided on the campaign page is credible	1	2	3	4	5	6	7
The information provided on the campaign page is incomplete (N)	1	2	3	4	5	6	7
The campaign information is easy to understand	1	2	3	4	5	6	7
The meaning of the information provided is difficult to understand (N)	1	2	3	4	5	6	7
The campaign information is easy to comprehend	1	2	3	4	5	6	7
The campaign was too complex. I am not sure what the project was. (N)	1	2	3	4	5	6	7
The campaign information is relevant for the project presented	1	2	3	4	5	6	7
As I looked through the campaign I thought of reasons why I would support	1	2	3	4	5	6	7

or not support the project							
The campaign was lots of fun to watch and read.	1	2	3	4	5	6	7
I thought the campaign was clever and quite entertaining	1	2	3	4	5	6	7
The campaign was not just about raising money – it was entertaining me.	1	2	3	4	5	6	7

### SOCIAL ORIENTATION

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The project has a social orientation	1	2	3	4	5
The campaign presents a socially related initiative or venture	1	2	3	4	5

### ENVIRONMENTAL ORIENTATION

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The project has an environmental orientation	1	2	3	4	5
The campaign presents an environmentally related initiative or venture	1	2	3	4	5

### ENDING

Thank you again for taking your time to answer this questionnaire!

Your response is now saved.

Kind regards,

Mia Charlotte Harboe

University in Agder

## Appendix 3: Reflection Paper

This reflection paper discusses my master thesis and its relation to the broad themes of internationalisation, innovation and responsibility. These themes are considered by the School of Business and Law at the University of Agder to be particularly relevant for responsible and productive professionals within the field of business administration.

The topic of this thesis is crowdfunding, which is defined by *the initiative by individuals, groups or organizations to attract relatively small financial contributions from a relatively large number of individuals using the internet, with the possibility for all internet users to contribute to the initiative*. In recent years, crowdfunding has emerged as a valuable source of financing for entrepreneurs, artists, social activists and others seeking capital for their projects or ventures. In addition, crowdfunding democratize finance globally by letting the “ordinary” crowd get more closely involved in projects and ventures, as active consumers, investors or both. However, the challenge is how entrepreneurs should create crowdfunding campaigns that perform well, hence get sufficient funding for their project.

Compared to most previous studies, I have collected people’s perceptions of crowdfunding campaigns as the basis for analysis. I have also focused on factors of crowdfunding campaigns that the campaigners can impact, which can work as guidelines for making successful crowdfunding campaigns in the future. This study examines performance of campaigns and the impact of seven different factors; creativity, logos, pathos, reward quality, campaign quality, social orientation and environmental orientation. Out of these, reward quality and environmental orientation was partly found to have a significant influence on the performance of campaigns. Nevertheless, the most important finding might be that very few factors had significant impact when predicting performance, hence the complexity of making a successful crowdfunding campaign is underlined.

### **Crowdfunding and Internationalisation**

Internationalisation is the growing tendency of corporations to operate across national boundaries. Crowdfunding, by definition, is related to a global market place, where people from all nations can participate and engage in the campaigns. Hence, internationalisation, with its opportunities and challenges, is highly relevant for this topic.

Within the topic of internationalisation is the concept of a born global. A born global is a business organisation that, from inception, seeks to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries. Crowdfunding might be used by entrepreneurs that wants their projects to be born global, thereby sell their product or service using the world as their market place. Crowdfunding gives entrepreneurs and others, opportunities to get funded as well as market their product to people all around the world. Especially niche products, which do not have a sufficient domestic market, can favour from crowdfunding.

Furthermore, since crowdfunding campaigns might have a multinational audience, an international orientation might affect the performance of the campaign when presented on an international platform. Hence, the campaigners should reflect this global mind-set and make a campaign that can engage people all around the world. In this study origin was used as a control variable, but I did not find any significant relationship between where the project had origin and the performance of the campaign. This might imply that crowdfunding campaigns can be initiated by whomever and wherever, without it influencing the campaign's performance level.

A current threat to the opportunities of internationalisation is the belief by some political leaders that globalisation and internationalisation harms their national economies. This belief might have a strong negative effect on the opportunity internationalisation brings crowdfunding, by either raising costs of entering their national markets or in other ways create disincentives for entrepreneurs wanting to sell their products or service in foreign countries.

### **Crowdfunding and innovation**

Crowdfunding can be related to the megatrends of the sharing economy and the emerge of new financial technologies. One can say that crowdfunding in itself is an innovative solution, as it solves a problem for entrepreneurs to attract monetary resources at critical phases of the start-up process. In addition, crowdfunding promotes innovation and idea generation.

Firstly, crowdfunding emerged as an innovative alternative to attract monetary resources to start-ups and projects that was struggling to get funding elsewhere. It thereby solved a problem for entrepreneurs or others needing money for their projects, hence is defined as an

innovation. In addition, crowdfunding can be used in new ways to deal with more suppressing issues in society, like poverty or inequality. Kiva, an online lending platform for people in poor societies, is one example of how crowdfunding can deal with issues of poverty. By using Kiva, poor farmers, business owners, and others can lend relatively small amounts of money from a relatively large crowd of people to help them start or growing a business.

Furthermore, crowdfunding is found to be less biased against women that what is found to be the case with traditional investors like business angels or venture capitalists. Therefore, crowdfunding can be used to close the gap between the amount of male and female entrepreneurs. Especially elderly and disabled women are left out of the entrepreneurial environment. To close the gap, the solution might be crowdfunding, or more specifically learn women how to use crowdfunding to develop their ideas. Currently, a group of initiators works on an e-learning platform, especially developed for women, to teach people how to best take advantage of the opportunity crowdfunding gives. The project is further described at <http://uwawme.eu>, and is one solution for closing the gender gap of entrepreneurs.

Secondly, crowdfunding can be used to promote innovative products and services. Traditionally, venture capitalists have had the job of investing in start-up companies and new ideas. Now, an increasing number of venture capitalists require start-ups to launch a crowdfunding campaign to assess their potential before deciding to invest in their ideas or not.

### **Crowdfunding and Responsibility**

Responsibility and trust is core concepts for a successful crowdfunding environment. All stakeholders in a crowdfunding environment needs to act responsible to ensure that the concept of crowdfunding evolve. For platforms or campaigners, to be responsible do not give them a competitive advantage, but is a requirement for crowdfunding campaigns to get funders to trust them.

There are several challenges related to crowdfunding and responsibility. Compared to the positive aspects of funding innovative ideas, or solving issues of poverty and gender equality, crowdfunding can also be used to do evil. Crowdfunding can be used to finance unethical products or services, or in the worst end of the scale; terror. Derived from this, there is a huge responsibility on campaigners, platforms, funders and institutions to limit this challenge – and at the same time not hinder crowdfunding to be used as an opportunity to do good.

First, campaigners should take responsibility to be trustworthy and to promote ideas that do society good. Secondly, platforms should ensure that the campaigns that are being published are considered good. Thirdly, supporters should fund projects that do good, and not evil.

In addition to the above-mentioned criteria, the governments and institutions around the world should ensure that the opportunity crowdfunding gives are easily attainable, but also to protect investor's rights as well as campaigner's rights. Despite significant growth in crowdfunding in recent years, regulation in most countries has struggled to keep up with the new development, its opportunities and challenges. Today, regulatory barriers present some of the main obstacles in facilitating growth of the crowdfunding market. Governments and other national institutions should be responsible for creating a market that facilitate the opportunities crowdfunding gives.

To summarize, crowdfunding is an innovative opportunity to collect funds from all over the world. However, stakeholders in the crowdfunding environment need to act responsible in order for the society to exploit the advantages crowdfunding gives, and at the same time suppress the challenges associated with this new financial method.