



**UNIVERSITY OF GOTHENBURG**  
**SCHOOL OF BUSINESS, ECONOMICS AND LAW**

Master Degree Project in Knowledge-based Entrepreneurship

## **To Stand Out in the Crowd**

How public relation activities effect a crowdfunding campaign for a tech-startup

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## **Background**

To create an own company, then to make it profitable takes a lot of effort and time and it tests your creativity about new ideas on how to manage processes. By taking the masters program in Knowledge-based entrepreneurship the author got the possibility to formulate and projecting an own startup. In this case the startup has been up and running along with the education during the fall. The startup is named Capturest and is a mobile application to document personal moments. (<http://capturest.com>) The target group is wide and the customers are defined to be end-consumers that pay a little amount of money, hence the importance of scale is prominent.

The startup itself has obtained some initial funding. The intention of continue pursuing this opportunity to incorporate after the masters program are within the consensus among the founders. Although some initial funding were obtained the founders saw that it required more. Many competencies needs to be captured within the company and therefore salaries is perceived to be the biggest cost for the startup.

By that said there are several possibilities to obtain such financial capital and the startup has in parallel worked with multiple sources. In line with the authors interest of the phenomena crowdfunding, both at the academical point of view and as an interest to receive extra financial capital for the startup, the opportunity to conduct a masters thesis regarding crowdfunding tended to be suitable.

The reader should be aware of that within this thesis the author are engaged in a startup and the processes of getting financial capital via crowdfunding. This might results in potential biases (See anchors in section 3.6), hence it is with real intention to get funding. To mitigate these biases an experimental study which is not common within business research has been used as research strategy with strong characteristics in regards of validity.

## **Acknowledgements**

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**Abstract:**

This thesis handles the phenomena of crowdfunding and how public relations effect a campaign. A real-life experiment was conducted on the crowdfunding platform Kickstarter. The experiment including two groups, the first one was given the treatment ” external PR” while the other had to rely on internal community awareness. The conclusions of the experiments are that external PR leads to higher awareness but does not imply multiple-effect. This means that funders on average does not pledge more, and there is no positive correlation that including PR constitutes a higher number of people. Thus, this thesis can have managerial implications that cost per average pledger can be calculated and that community building is an important factor.

Keywords: Crowdfunding, Kickstarter, startup, public relations, web 2.0, alternative financing for entrepreneurs.



# 1. Introduction

Crowdfunding is a relatively new phenomena that has grown public and academical attention throughout the recent years. A quick search on Google trends shows that in the beginning of 2011 crowdfunding was almost non-existent, but over a period of time crowdfunding has grown to become more and more present in the society.

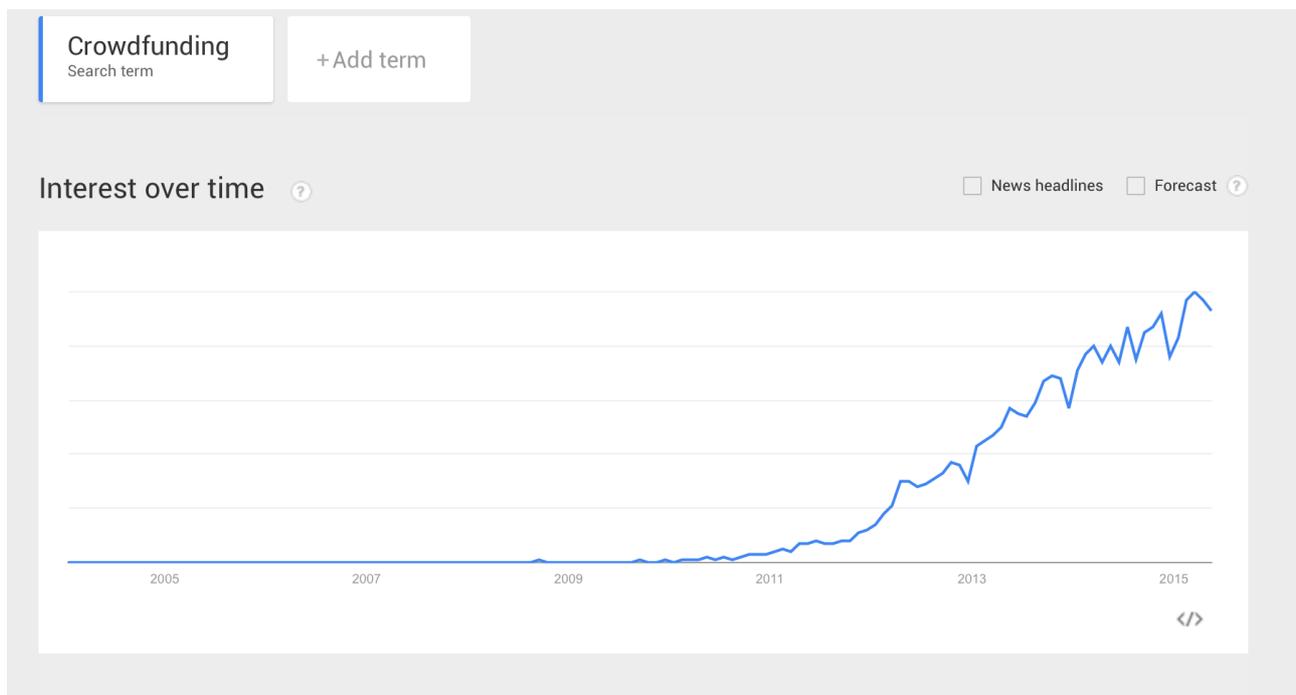


Figure 1: Crowdfunding trends. Source: [google.com/trends](http://google.com/trends)

It is argued among scholars that crowdfunding needs to maintain more attention in the academical sphere. Many scholars are still concerning the definitional issues of crowdfunding. (Kappel 2009, Hemer 2011, Oradnini 2011, Belleflamme and Schwienbacher 2012, Larralde and Schwienbacher 2012, Lehner 2013). When reading about crowdfunding it is pointed out that the phenomena itself only can be properly understood if broaden up the scope about crowdsourcing. (Lerralde & Schwienbacher 2013). Crowdsourcing is when mostly a company open up its processes and include the customer into its research and development. (Lee et.al 2008). Mentioned is also the concept of web 2.0, which constitutes the basics of crowdfunding and crowdsourcing (Lerralde & Schwienbacher 2013). Web 2.0 is a concept and a paradigm-shift of how people interact on the internet. The basic principles constitutes of the web as a platform and instead of using it for

informational purposes. The importance of openness, collaboration and participation characterizes the new web 2.0 (O'Reilly 2007, Lee et.al 2008).

However, any contribution of literature devoted to the crowdfunding field is welcomed by scholars (Lehner 2013). Scientific literature concerns, in general, papers about crowdfunding as phenomena and what motivational factors there might be for the platform, the funder and the project owner. (Agrawal et.al, Belleflamme et.al 2013). Even though the new attention creates more outcome from an academical perspective, knowledge-gaps still exists. One particular gap mentioned by Lehner (2013) is what drives success for a crowdfunding-campaign. Meaning, are there characteristics among successfully funded campaigns? (Lehner 2013)

Although there are some literature that handles this issue, for example Agrawal et.al (2014) emphasize the importance of early contributions and that "*success breeds success*". Colombo et. al (2015) continue investigating the role of internal and external social capital as an important aspect of making a campaign successful. External referrals within social networks such as Facebook and Twitter are also outlined as factors that leads to higher success. (Agrawal et.al 2014) Among other scholars, factors such as non-for profit, fiscal product rather than a service and demographical aspects can lead to success. (Lerralde & Schwiendbacher 2013) But again more attention should be shred upon other factors and any contribution helps the academia to be more complete (Lehner 2013).

For a startup like Capturest and arguably among many others, it is of importance to know that there are only limited amounts funding. Engaging in huge advertisement campaigns would simply not be an option due to this lack of financial capital. Instead other methods can be adopted. Since web 2.0 analogies emphasize the participation and collaboration part of engaging with the customer, preferably those requirements needs to be met if a startup engage in a crowdfunding campaign as well. One type of tool that meets those requirements are public relation-marketing. According to the early father Edward L Barnays (1995) public relations consists of three elements *a) informing people, b) persuading people, and c) integrating people*. (adopted from NY.times 1995 and Kotler & Mindak 1978). Including people and interact with them personally makes them cheaper to target. (Kotler et.al 2011) Public relations are within domain of promotion, but have more credibility towards the users, by allowing them to interact and commenting. This in contrary to pure advertisement which gives no possibility for receiver to interact. (Kotler et.al 2011)

This leads down to the academical problem that will be investigated for this thesis. As mentioned in the background, Capturest is a startup that helps the user to document personal moments on its mobile cell-phone, this channeled over a mobile application. The startup is in the stage of attracting more financial capital for its product and since the startup tries to reach a broad market, the founders (which the author is among) saw crowdfunding as a possibility. Although the startup has not acquired a large marketing budget to spread its crowdfunding campaign widely it needs to look at other tools. Public relational tools is in line with web 2.0 analogies that is the fundament for the phenomena of crowdfunding. There are no academic research on whether these external public relation engagements drives success on a crowdfunding campaign for a tech startup. Meaning, can external public relations, as a tool for spreading the campaign, be added to the list of drivers of success for a crowdfunding campaign?

## **1.2 Research questions**

To answer the previous stated problem, *if the manage of external public relations is a success factor for a crowdfunding campaign*, the objective was to conduct an real-life experiment to test if so is the case.

Success for a crowdfunding campaign for a startup is when the money that the project owner reached out for is provided from the crowd which will be elaborated further. Therefore to measure whether external public relations has a positive impact on a campaign, in this thesis the amount of money that a campaign will get is used as the key indicator for comparison.

The real-life experiment was set up with two campaigns where one campaign was exposed to external public relations while the other had to solely rely upon in-side platform exposure. The design has been classical deductive and contains a research question and a theory chapter which lead down to hypotheses that were tested over the experiment and analyzed with descriptive and bi-variate statistics.

The main research questions are outlined as follows:

- a. If external PR is managed outside the platform, does that lead to higher success rate?

b. If external PR is managed outside the platform does that lead to higher amount of people pledging the campaign?

c. If external PR is managed outside the platform does that lead to higher amount of money on average pledged by the funders?

A positive relationship between external PR and people pledging and PR and amount of average of money each funder pledge.

### **1.3 Limitations**

This thesis handles primarily external public relations within crowdfunding and does not seek to redefine public relations as such. It is instead to understand the logic of public relations as a marketing strategy according to Kotler et.al (2011) and if the use of that logic is positively related to a successful campaign.

The work should be seen in a startup context and is not reaching to explain if the implications can be applied in non-profit settings nor individuals that engages in crowdfunding. The scope only includes platforms with donation-based focus since the experiment has performed on such platform. The results of this thesis can have managerial implications on how PR should be considered within a crowdfunding campaign.

### **1.4 Disposition:**

The outline is as follows, a theoretical framework constituting crowdsourcing, web 2.0, crowdfunding and public relations are included. The theory chapter ends by stating the hypotheses around the experiment. Method is described on how the process was handled. Findings which states the raw statistics and the experimental tests. A discussion analyzes and conclude the finding and suggesting further research.

## 2. Theoretical framework & Hypotheses

The literature review will provide a theoretical foundation of the topic of this thesis. The outline will consist of first the concept of crowdsourcing. Among scholars it is perceived to be the broader concept of crowdfunding.. (Lee et.al 2008, Kleemann et al 2008). Secondly, in order to understand what crowdsourcing is, also the role of the internet and how it was built up towards building communities needs to be explained. Web 2.0 is perceived to be an explanatory framework for emergence of crowdsourcing and later on crowdfunding (Lee et. al 2008). Many researchers emphasize that almost all incentives of crowdsourcing and crowdfunding is web-based. *“Crowdfunding can be defined as a collective effort of many individuals who network and pool their resources to support efforts initiated by other people or organizations. This is usually done via or with the help of the Internet.”* (De Buysere et al. 2012:9). Thirdly, the phenomena of crowdfunding and definitional aspects are something that still concerns research. (Belleflamme et.al 2013) The definitional aspects consists of explanations of the term, which type of crowdfunding platforms there are and which actors are cornerstones for crowdfunding.

Fourthly, the most important aspects of crowdfunding are the motivational factors for why people engage in those activities. This section will outline the motivational aspects for the funder and also in an entrepreneurial context for the startup or the entrepreneur. The importance for the entrepreneur to understand drivers of success for a campaign and what information that needs to be included in order to reach as much awareness as possible is included. Although, crowdfunding is about tapping and certain community and make them to take a risk for a project that has not yet been produced, it is relevant for this thesis to include certain aspects on how promotional actives can engage this community or parts of the community e.g. which tools are commonly used. Lastly, included in the theory chapter is therefore basic literature on public relations.

### 2.1 The concept of crowdsourcing

The concept of crowdsourcing was first expressed as a buzzword in Wired magazine 2006 by Jeff Howe and Mark Robinson. Later it was expressed in academic literature in 2008 as *“Crowdsourcing takes place when a profit oriented firm outsources specific tasks essential for the making or sale of its product to the general public (the crowd) in the form of an open call over the Internet, with the intention of animating individuals to make a [voluntary] contribution to the firm's*

*production process for free or for significantly less than that contribution is worth to the firm”* (Kleemaan et al 2008.)

Others define crowdsourcing more as outsourcing a task to the customer instead of doing it in house and it does not necessary have to be over the internet (Alonso & Lease 2011, Oliveira et.al 2010, Liu & Porter 2010). Some would argue that there is no consensus regarding the relationship between other associated concepts such as open innovation or outsourcing, while others do . (Kleemann et.al 2008, Howe 2008, Whitla 2009). If the definition tend to be more towards the openness of collaboration then Internet is helpful. (Arolas & Guevara 2012)

In other cases it can lead to introversion, when the company wants to outsource certain important areas of its business to the crowd, but at the same time control the intellectual property. This can later lead to that no one is welcome to collaborate and by that the company misses the diversity of engaging the crowd in customer development. (Schenk & Guittard 2011) Hence the Internet might not be the best platform for that kind of interaction. (Arolas & Guevara 2012) Though this does not apply to this case and many scholars argue for the opposite. (Lee et.al 2008) To be clear on what crowdsourcing is, then the inclusion of Internet is almost necessary. (Lee et.al 2008, Danmayr 2013).

The crowdsourcing model can be perceived as a business pattern with its final goal to reach innovative solutions, but it is via the Internet that the collaborative forces can meet and give a different perspective. Later the impact is that geographical boundaries can be decreased and more knowledge from different heterogeneous perspectives can be included (Howe 2008).

The primary reason for a company to engage in crowdsourcing activities is simply cutting cost and it is used as a way of shorten the product development cycle, since including the customer creates an higher acceptance of the outcome delivered by the company. (Howe 2008) Some scholars stress the term *working customer* as a concept closely linked to crowdsourcing. (Lee et.al 2008). But the *working customer* is more a way for the company to include the customer into the process by using their skills and knowledge to create innovative solutions for the company. (Howe 2008). This later implies that the customer itself has a certain interest in what is being produced and therefore can

contribute with its own time, skills and knowledge to make that product or innovation occur. (Danmayr 2013, Kleemann et.al 2008, Lee et.al 2008).

It is also argued that the collaborative crowd can be more effective than individuals and small teams. An effectively managed process in a community where different solutions are discussed, tend to lead to better solutions in general (Howe 2008). Even though crowdsourcing is under development, its emerging possibilities can clearly be a way for a company to adopt to the certain communities around a product and use them as a force to sell more and be closer to what the customer wants. (Lerralde & Schwienbacher 2013). Again it seems clear that the internet is taking a prominent role in this community building business strategy. Under the assumption that Internet plays an important role for crowdsourcing and later crowdfunding, the importance of what can explain the growing phenomena of crowdsourcing arise. Crowdfunding and crowdsourcing literature mention the concept of web 2.0 as important. (Lerralde & Schwienbacher 2013, Mollick 2013).

## **2.2 The collaborative Web 2.0**

Before continuing to the theoretical framework of crowdfunding some light should be shed upon web 2.0's role of enable crowdfunding to be even possible. This section will outline the basic principles of Web 2.0 and why this is important in its context.

The collaborative web or web 2.0 is the term first coined by Tim O'Reilly in 2005. It is a concept with new characteristics of the Internet and it is seen as a turning point of the web in a radical way. It emerged when the burst of the dot.com bubble in 2001 occurred (O'Reilly 2005).

The aim was, according to O'Reilly (2005), to understand implications for the next generation of softwares back in 2005. Even though the concept itself was mainly popularized in 2006 it can relate back to when the dot.com bubble burst which implies that there are no specific consensus when the paradigm shift actually occurred. Rather see the burst of the bubble as a specific time period when the notion was out crystalized. (O'Reilly 2007, Boutin 2006, Booth 2008).

It is a paradigm shift from one type of way on how to use the Internet towards another (Wu Song 2009, Sang et.al 2011). The concept before, Web 1.0, was expressed when the Internet became

available for the general public and was characterized as the informational web; web as an informational source. The Internet consisted of static websites where an authority had control of what was produced and informations was only produced in silos. (Wu Song 2010) .

It is also defined as "bi-directional collaboration in which users are able to interact with and provide information to central sites, and to see that information collated and made available to others" (Goodchild 2007).

The major differences with web 2.0 is that after the bubble burst, the patterns of the surviving Internet businesses showed characteristics of dynamic platforms where collaborations were emerging and seen as more important. (O'Reilly 2005).

The boundaries of the web 2.0 is in somehow fluid and it is not commonly agreed exactly how to define the paradigm. The basic principles from O'Reilly's material gives the reader a good understanding about the concept as a whole (Wirtz et al 2010, Shang et al. 2011, Wu Song 2010, Goodchild 2007)

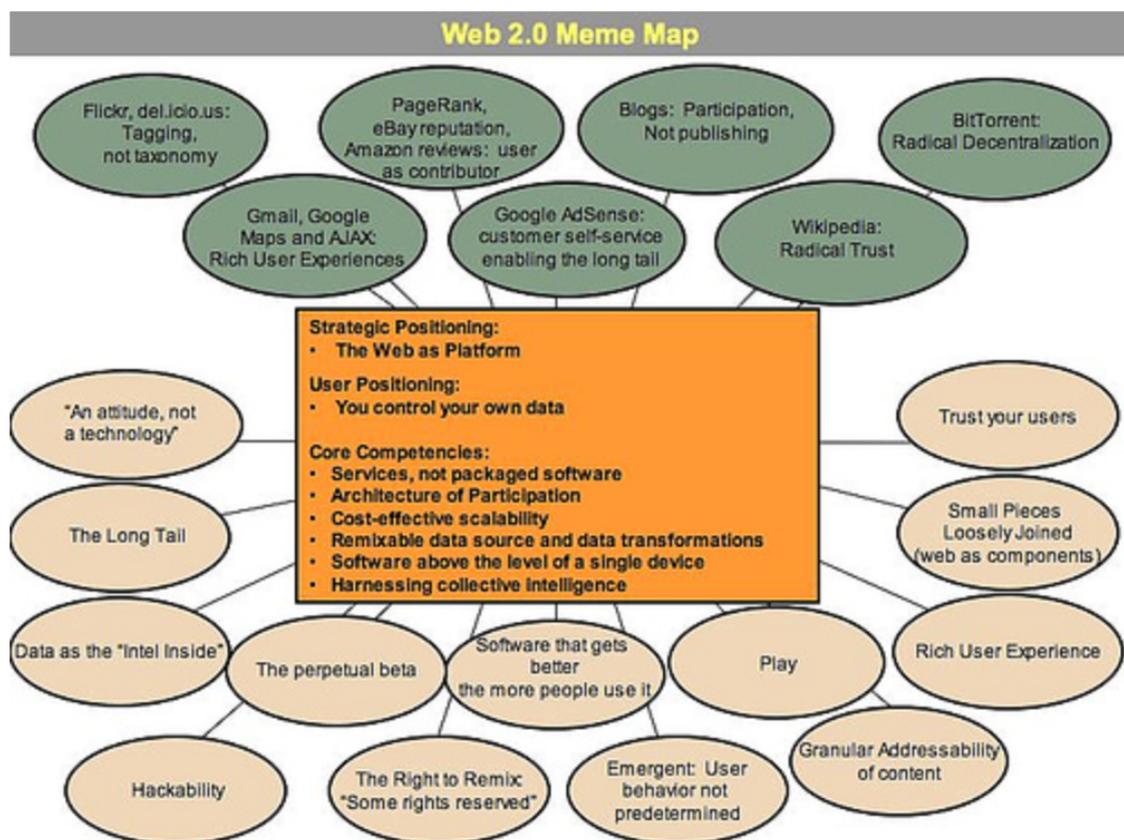


Figure: 2 - The web as platform Source: O'Reilly media Inc 2015 accessed 2015-04-27

O'Reilly describes seven important principles of Web 2.0,

1. Web as a platform
2. Harnessing collective intelligence
3. Blogging and wisdom of the crowd
4. Data is the next intel inside
5. End of the software release cycle
6. Lightweight programming models
7. Software above the level of single device.

The model describes the core elements from web 2.0 and concretizes the the more abstract seven principles.

Principles such as the web as platform has implications of that the web itself is not choosing and looking what people are doing on the internet rather how they are doing it (Wong 2011). The collective intelligence means that the crowd decides what is valuable for the community and therefore comments, and outside referrals can be linked to a certain topic and create more value itself. The important implication is that the business should only provide area and not create the information as such, that is up to the community. This relates to the next point about blogging and wisdom of the crowd, that the user it self can provide with valuable information itself and the business only need to enable it. (O'Reilly 2007).

In an entrepreneurial context Lee et.al (2008) outline the impact of web 2.0 for small businesses. The research suggest three properties that web 2.0 has enabled to enhance possibilities for startups. The definition regards openness, collaboration and participation. (Lee et.al 2008). In web 2.0 technology information is pushed to allow the receiver to be active and interact with the information rather than only seeing the message passive.

<b>Collaboration</b>	<b>Openness</b>	<b>Participation</b>
Web 2.0 allows information to be used in new ways	Web 2.0 increases social interaction over the web	Web 2.0 both enables and requires new business models

*Figure 3 - Basic principles of web 2.0, Table adopted from Lee et.al 2008*

With collaboration Lee et.al (2008) enhance the ways of information and how it is being used.

Collaboration refers to the interaction between the content producer and the reader. For instance making blogs available and personally engaging in commentaries and feedback can be a way of adopting the web 2.0 logic.

For openness it related to the more open communities and sharing of knowledge, instead of keeping the knowledge inside the organization, open-source methods can be used to achieve innovation. Crowdsourcing is a part of open-source and later crowdfunding can be a way to implicate what is being built and what is not being built.

Instead of creating content for a product or a service, the entrepreneur has the possibility to only provide with a network or a platform where the content can be produced by the consumers. Crowdfunding platforms act in this domain and in order to activate the crowd the focus should rely on making the users active. (Lee et.al 2008)

### **2.3 The lead from Crowdsourcing to crowdfunding**

The body of the crowdfunding is around three parts. Previous sections about Crowdsourcing and Web 2.0 have outlined the principals of what crowdfunding derived from. This section's first part is about crowdfunding as a phenomena and what research in its current state has as understanding about Crowdfunding. Basic principals and in what forms crowdfunding can take shape of, adding up too the role of crowdfunding in a start-up context to relativize the scope of this work.

This work handles PR as a factor for success. The hypothesis condensed is that if managed right PR can lead to more successful campaigns. In consequence, to understand what drives motivation and success are crucial for this work in general.

The final part of this section is regarding the basic principles PR and what tools there are available and what effects it has. Since research around this subject is hard to address, at least with the notion from the author the scope has been broadened up and handles promotional related activities in general.

## **2.4 The phenomena of Crowdfunding**

Crowdsourcing as a concept of sharing knowledge and let the crowd share its intelligence to create better products over the Internet. Doing it with a web 2.0 approach where open communities and social networks have a more predominant relevance. By including a financial model with a monetary incentive for the project owner and same alike for the supporter crowdfunding is initially defined. Several definitions are adopted by researchers and they can have different meaning depending on which approach crowdfunding should be seen from. Although the relative consensus implies that definitions from the most cited articles are adopted among scholars (Danmayr 2013, Agrawal 2014, Gerber 2012, Hemer 2011, Lerralde & Schwienbacher 2010). In this thesis the author applies the concept as an entrepreneur which implies that it is seen in a startup perspective and how it can benefit the startup.

One of the most cited articles from Belleflamme et.al (2013) define crowdfunding as *"Crowdfunding involves an open call, mostly through the Internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward to support initiatives for specific purposes"*. In line with Belleflamme et. al (2013), Lehner describes crowd funding as it means *"tapping a large dispersed audience, dubbed as 'the crowd', for small sums of money to fund a project or a venture"*. (Lehner 2013).

Crowdfunding as phenomena are not only considered for companies and for-profit seekers. Instead the quite diverse range of idea providers rooms within the definition, for example it can be artists, musicians or NGO's. The one thing that combines them is that they seek monetary support for their ideas (Agrawal et.al 2014). The crowdfunding idea combines the traditional sources of finance with a sociological aspect. Instead of just making money, businesses seeks for a problem to solve that address more basic needs (Danmayr 2013).

Sometimes issues arise for a traditional business that is trying to solve a problem where there is a clash between the sociological and the financial or economical aspect. It is therefore suggested that

crowdfunding can act as a middle way for solving that problem by interacting in between the business and the ones it is addressing (funders). (Freund 2010, Massolution 2013). To do that the web 2.0 and certain platforms becomes important. The community networks and the interaction among peers are already there and could explain the emergence of Crowdsourcing. Adding the possibility to exchange money gives businesses a powerful tool to invent new business models. (Gerber et al 2012). In general the actors of crowdfunding consists of three key actors; the project owners (entrepreneurs, individuals or organizations), funders (investors, lenders or donors) and the platform-providers (Ordanini et al 2009). The project owners that possess an idea that they want to realize in some way and therefore they seeks its way towards crowdfunding. The funders that are present within the community and wants to bear risk in return for some kind of reward. The motivations for these individuals are different, but majorly they seek to be a part of a community and stand out within it (Ordanini et.al 2009). The crowdfunding platforms acts as the middle man in between the project owners and funders to guarantee the realness of the project, and can help out to close the gap of information asymmetry between the project owner and the funder. Hence the primary role for the platforms are to provide a space were incentives can be promoted and boosted out. (Ordanini et.al 2009, DeBuysere et al. 2012, Massolution 2013).

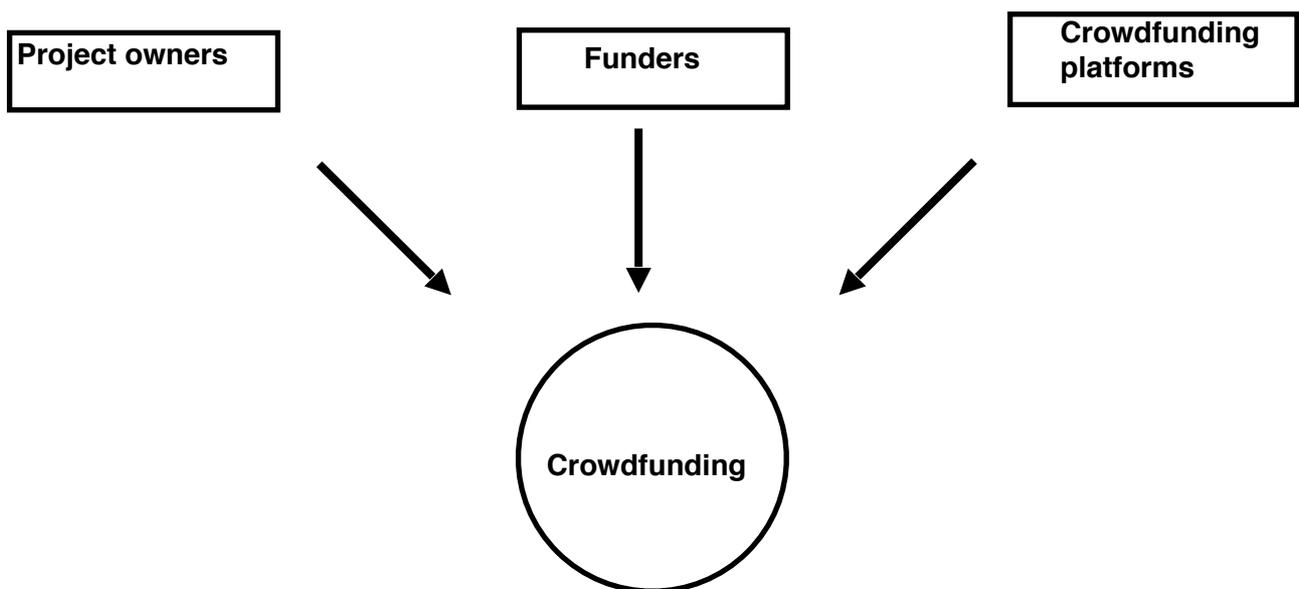


Figure: 4- Crowdfunding stakeholders Model adopted from Danmayr 2013

### **2.4.1 Crowdfunding platforms:**

The brief description of project owners as individuals or organizations with different incentives to why engaging in crowdfunding activities, will be discussed in depth under the section of motivational aspects. One delimitation for this thesis is that incentives and motivations for singular individuals and non-profit organizations will not be considered. Instead the focus is aligned with the entrepreneur and the startup as an organization for making profits.

The funders incentives will be outlined in the section of drivers of success for a campaign, by the logic that project owners wants to reach out and fund their ideas to its max, and by that tapping the right tools to increase the probability of success. So instead of digging deeper into the sociological aspect of the funders. (Colombo et.al 2015) this chapter will explain what makes a campaign attractive to funders and what does research suggest today.

Crowdfunding can take place in different shapes and forms. These different forms have implications for managerial decisions depending on what type of crowdfunding a start-up should consider. Lambert and Schwenbacher (2012) started to classify different crowdfunding platforms as donation based, with passive investments and with active investments. (Lambert and Schewienbacher 2012). Mollick (2013) distinguish the platforms based on how they approach their funders, and how the platforms themselves distinguish different people. For instance if there are pure philanthropists or funders who want to take an active role (Mollick 2013). The framework provided by Hemer et.al 2012 explains the different platforms of crowdfunding and how suitable each of them are in different cases.

### **2.4.2 The different platforms**

Crowdfunding alternatives are divided into five categories, each one demonstrates different complexity on how the platform itself should be structured (see figure below).

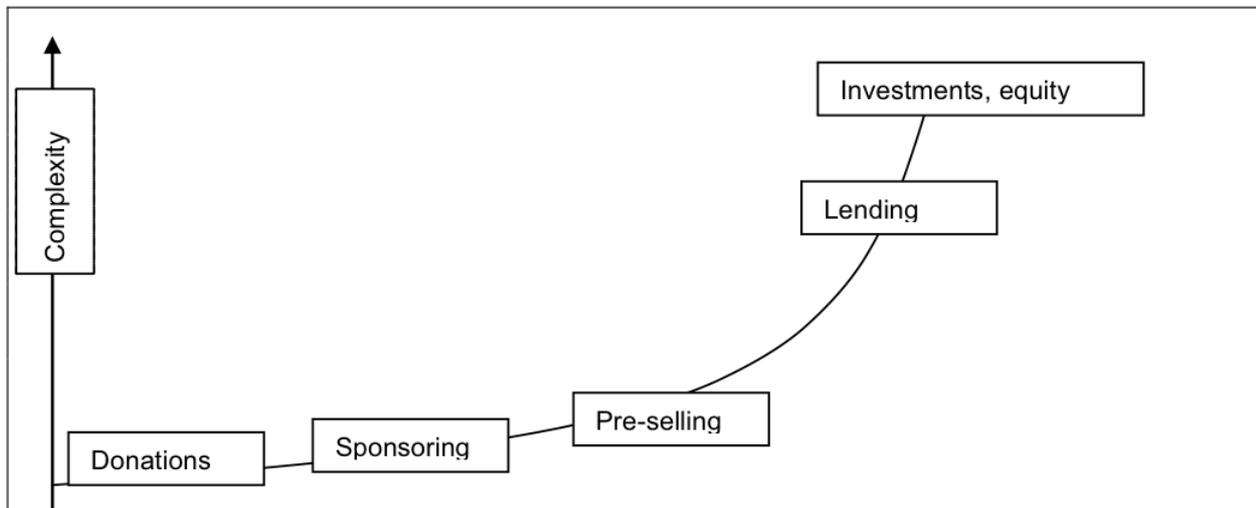


Figure: 5- Crowdfunding platform complexity, Source Hemer et.al (2011a)

- **Donations**

Donations tend to be the simplest model and are used in platforms such as Kickstarter or Indiegogo<sup>1</sup>. The donation based model implies that the backer of a project donates a certain amount of money to a project and does not have a claim for financial compensation based on the pledged money. Instead, during the projects, the project owner can offer a reward in exchange for the donation. The rewards are often just an acknowledgement for the contribution and it can take the form of a thank-you mail, a sticker, or credits in forms of the backers name on the web-page etc. In contrary to Hemer (2011), Massoloution (2013) makes a distinction between donations and rewards, where rewards have its own category. The simplistic view of donation based crowdfunding is easy to understand for the both parties involved in the transaction and there is little room for interpretations. (Hemer 2011).

- **Sponsoring**

Sponsoring on the other hand increases the complexity little by having pre-defined rewards that the project owner is obligated to give. It differs from donation by including more advanced rewards. Often these rewards take form of services such as PR or marketing for the sponsor. An example for a sponsoring platform is GoFundme<sup>2</sup>. Both the donation based model and the sponsoring model are

<sup>1</sup> <http://kickstarter.com> <http://indiegogo.com>

<sup>2</sup> <http://http://gofundme.com>

sometimes combined, so that the project owner gives more simplistic rewards in return for a donation, and more advanced with higher risks involved (Hemer 2013).

- **Pre-selling**

Even pre-selling could be considered as an extension from donation based crowdfunding. By letting the funders contribute before the product (often a book, a film, a software or a physical product) is produced the creator can promise the "early buyer" an early version of that product. (Hemer 2013) The difference between pure donations and pre-selling is that including the actual product increases complexity in expectations. The funder expects the product to be according to a certain standard and the project owner must deliver a more complex product than for instance an autograph. According to Hemer (2013) pre-selling can be seen as a way to get the product earlier but also getting it to a lower price. Products that are not produced, often incorporate a certain aspect of risk and reward. By taking that risk as funder there is often a reward in getting the product faster and to a discounted price.

- **Lending**

Simplistically, lending is the funding-form when the funder lends a certain amount of money to the project creator and in return can expect an interest on the sum. The loan is fixed for a specific day of pay back. It is usually over a period pre-decided within the platform. In rare cases the lending can take place over a longer period. Often in that case the lender does not withhold an interest on the sum, instead the revenue sharing principle is adapted. Which means that the lender gives the project owner a risk-bearing loan, and then an agreed sum or a share of the profits will be paid out to the lender. It can be a multiple if a percentage is agreed on, but at the same time the invested loan can in a bad case result in nothing. For the crowdfunding platforms it adds substantial complexity since the handling with financial tools is incorporated and different monetary legislations may apply (See JOBS act in U.S). (Hemer 2013)

- **Equity**

The equity finance or micro-investments as a more adequate term, is the alternative of crowdfunding with the most complexity. It involves the highest amount of administrative work for the host of the platform (Danmayr 2013). Instead of physical rewards, the funder will get a share, dividends or voting right in exchange for monetary contributions. Agrawal et.al (2013) Several parts

adds the complexity in this type of crowdfunding, not at least the regulatory limitations. An example from the Swedish limited company law (Aktiebolagslagen, ABL) a limited company is only allowed to have a certain amount of shareholder if it wants to remain as a private corporation.

### 2.4.3 Platform suitability

Hemer's (2012) matrix contains the applicability for different organizations, and which model of crowdfunding are most suitable for each organization. (see figure below). Hemer (2012) divides the categories into nine fields containing a ranking system for each above specified type of platform, and a grading system is provided (-, +, +\*, ++, +++). Hemer (2012).

Original embeddedness of initiative	Commercial background of initiative		
	Not-for-profit	Intermediate	For profit, commercial
Independent, single	Donations: +++ Sponsoring: +++ Pre-selling: +++ Lending: ++ Equity: -	Donations: +- Sponsoring: ++ Pre-selling: +++ Lending: ++ Equity: -	Donations: - Sponsoring: ++ Pre-selling: +++ Lending: +++ Equity: -
Embedded	Donations: +++ Sponsoring: +++ Pre-selling: +++ Lending: - Equity: -	Donations: +- Sponsoring: +++ Pre-selling: +++ Lending: +- Equity: -	Donations: - Sponsoring: ++ Pre-selling: +++ Lending: + Equity: -
Start-up	Donations: +* Sponsoring: +++ Pre-selling: +++ Lending: ++ Equity: +*	Donations: +* Sponsoring: +* Pre-selling: +++ Lending: ++ Equity: +*	Donations: +* Sponsoring: +* Pre-selling: +++ Lending: ++ Equity: +

Legend: +++ very well suited, ++ well suited, + partially applicable, +\* applicable in early stage, - less suited, +- case dependent

Figure: 6- Crowdfunding suitability: Source Hemer (2012)

Not-for-profit is when a project does not seek to make profits for its initiative. Typical organizations have social purposes, such as charity or aid of any kind. In contrary, the for-profit seekers has their idea based on the profit maximization goal and seeks to commercialize the product or the service. Hemer (2012) has a third category, intermediate, where a commercial potential might be suitable and it can not be foreseen that if it can be commercialized in a later stage. (Hemer 2012)

#### 2.4.4 Motivational aspects

Success for a project does not mean that the project itself will successfully be able to produce the product or start a sustainable company. Success for a crowdfunding campaign implies that the initial funding goal is achieved by 100%. (Belleflamme et.al 2012). Belleflamme et.al (2012) summarizes in their study that all of the project creators (100%) were strongly motivated by raising capital for their idea. Hence, factors such as getting more public attention and obtaining feedback for the product were also strong motivational forces to starting a crowdfunding project. With those insights this thesis is limited to that, in line with what research define as successful campaign, the definition of success is for a project to be fully funded. (Belleflamme et.al 2012, Agrawal et.al 2014, Mollick 2013)

The following section will outline motivational forces for both project owners and extensively for the funders (as a result of which factors make them pledge money). It further describes the current research on drivers of success for a crowdfunding campaign. It should be noted that the work that has been completed regarding factors of success are either on a macro-level or in a case based level and therefore it should be seen in its context. (Kuppuswamy & Bayus, 2013, Gerber et.al 2013)

Colombo et.al (2015) mention that much current work that has been accomplished are in these settings and therefore to draw exact conclusions and make a guideline on how to be successful is very much dependent on which type of platform, what the intention for the incentive are and basically if the project is attractive enough. However, there are patterns of drivers of success within the research that could be seen as motivational factors.

For the funder of a project Agrawal et.al identifies five different motivational factors

1. Access to investment opportunities: In the case of equity based crowdfunding participants in the community are willing to bear a bigger risk and in return get a bigger reward. It is by no sense different than seed-financing but with crowdfunding the funder are able to hop on the train at the beginning. It can be described as pre-seed finance (Gerber 2013).
2. Early access to new product: For people with a specific interest that are active in a community expressing that interest, a motivational factor is to get to those products first. Research has shown that early access to products are by very high in demand, even though the creator is unknown (Agrawal et.al 2013)

3. Community participation: Perhaps one of the simplest but yet most influential factors are that people want to engage in communities and participate among its peers. Whether it is in a web-based community or among friends or in an entrepreneurial setting. The community can achieve closer connection to the creator, or another motivation is, according to (Schwienbacher and Larralde 2010), to "*Being part of an entrepreneurial initiative*". Hence, funders gives contributions as a way to stand out in a community, or to be recognized (Argawal 2013).
4. Support for a product or idea: Pure philanthropical purposes are according to Argawal et.al (2013) a surprisingly big part within the biggest platforms. The funders do not seek for a reward nor stand out in a community. A small example are people that previously successfully funded their idea. They see pledging another project as a way to give back to the community and only for philanthropical purposes.
5. Formalization of contracts: This implies that instead of financing via family and friends with a weak contractual setting, crowdfunding can act as the intermediate between the creator and the family and friends. Agrawal et.al 2011 emphasize that family and friends often invest in the entrepreneur's initiative. Crowdfunding are a way to balance cost of social capital between them (Lee and Persson 2012).

Motivational factors for the project owners themselves constitutes of different aspects. Even though it differs from case to case, certain motivational factors were prominent for engaging in crowdfunding. Lerralde and Schwienbacher (2012) outline potential incentives for a startup to engage in crowdfunding activities.

1. The obvious motivation is that startups lacks resources and therefore sees crowdfunding as an alternative to fund a project by its customers. By using a model of micro-financing small contributions from many can lead to a substantial base of capital accumulated. (Lerralde & Schwienbacher 2012). 100% of the project owners in the study of Belleflamme et.al (2013) answered that getting financial capital was one factor why they considered crowdfunding as an alternative.
2. Risk-spread: If an entrepreneur base its startup on a large amount people from a small group of people that often requires personal collateral. Instead of personally risking these money, a crowdfunding campaign can enable to spread the risk over many more individuals and make that financial risk less, in terms of monetary resources.
3. An alternative of attracting small contributions: It is almost impossible for a startup to initiate an IPO, but small contributions are perceived less risky and there are more possibilities to

accumulate money. Hence an IPO process is complex and cost much in administration so therefore crowdfunding can act as an intermediate.

4. Lastly in line with the web 2.0 analogies about the wisdom of the crowd. If a large amount of funders e.g. customers, are willing to pledge money, it is also more likely that investors can see the potential in the product or service that is funded. (Lerralde & Schwienbacher 2012).

#### **2.4.5 Drivers of success**

Even though there is little academic attention on exact success factors of a crowdfunding campaign, many claims are made via blogs, platforms, newspaper magazines etc. For this thesis to conclude success factors it only involves the academic contribution and additional information provided by the Kickstarter platform. On the Kickstarter platform the project owner access a creators handbook with tips compiled from Kickstarters own investigations about success factors. (<https://www.kickstarter.com/help/handbook>).

One of the more recent studies from Colombo et.al (2015) have investigated success factors for a crowdfunding campaign and tested certain variables on an aggregated level. Their conclusion was that internal social capital and the importance of early contributions was important. Both in terms of pledges and in terms of attention for the campaign (Colombo et.al 2015). They back their information from previous studies including descriptive and anecdotal evidence ( Agrawal, Catalini, & Goldfarb, 2014; Ordanini, Miceli, Pizzetti, & Parasuraman, 2011).

Colombo et. al (2015) states also that relying exclusively on external social capital or internal social capital can be dangerous and a project creator should engage in both communities to attract funding. Further from for instance Hemer (2011) states that third party endorsement can be a determinant of success. Third parties includes celebrities or investors to promote the campaign. Engaging the personal network or outside network within the campaign, referrals outside the platform might be important. These referrals could be for instance to Facebook or Twitter where it is easier for people to refer and interact about the campaign. (Kuppuswamy & Bayus, 2013). Evidence even suggest that the amount of Facebook friends will increase the amount of pledgers (Mollick 2014).

Beside from external campaigning, internal aspects are pointed out, for instance to be able to provide a reliable time-plan determines success (Agrawal et. al 2013). Hence, from case to case and often provided by initial feedback, adapting to the crowd and making them a part of the goal makes

a difference. (Kuppuswamy & Bayus, 2013). The Kickstarter creators handbook gives suggestions on how to structure the campaign: What to include in the video, which rewards that are suitable and how to calculate for the target goal is included ([kickstarter.com](http://kickstarter.com)). Ramachandran (2013) adds the number of project updates as a being close to the crowd as a success factor.

The external spread of web 2.0 technologies have enabled an easier way to communicate and in order to reach the right community or the right crowd these marketing tools can be used. Also stated by Agrawal et. al 2013) *"However, Web 2.0 technologies have enabled proponents to broadcast their financing campaigns on the Internet, fueling the rapid diffusion of crowdfunding."* Importantly in line with the basics of web 2.0, the openness, collaboration and participation are key success factors for spreading the campaign.

To do this it is not a straight forward process. It is easy to engage with openness and participation, but if those aspects are not pre-existent, the entrepreneur and the project creator need to spread the awareness. This study handles spreading the campaign over public relation activities. To see in contrary if a campaign achieve success by spreading its information to public relational channels, it requires understanding in the theoretical framework of how marketing in these manner work and how to measure them. Therefore the next section consists of basic principles of marketing with a focus on public relations as a way of spreading information and marketing. The understanding of how a campaign can be successful will be pared with the notion of how to spread the word about a particular project leads down to promotional activities which later constitutes of the dependent variable in the experimental design.

## **2.5 Public relations & Internet advertisements**

The framework of public relations and internet advertisements is partly taken from Philip Kotler et.al (2011) and complemented by academic articles about internet advertisements.

Before describing the basic principles of engaging in public relation activities this thesis uses marketing research principles to draw conclusions about the topic. According to Kotler et. al (2011) the approach of conducting research of marketing four major steps are outlined. (Kotler et.al 2011)

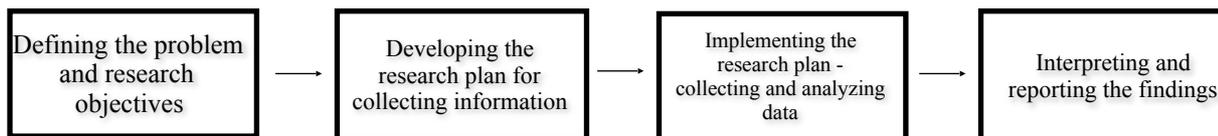


Figure: 7- Public relations strategy adopted from Kotler et al. 2011

Different types of research can be made and in this case according to Kotler et. al (2011) a casual research is suitable. A casual research demonstrates a way on how to test hypotheses about cause and effect relationship. Advertisement is *"a paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor.* (Kotler et.al 2011) A problem arises when the company engages in pure advertisement by the principles of web 2.0 technologies. The consumers to can not interact with the creator about the advertisement and sees the content as mass-promotion. (Campbell et.al 2013). Instead, using public relation tools to form a relationship with the user or the participant within a certain community, tend to lead to higher conversions (Campbell et. al 2013). Even though public relations are an advertisement tool the believability is higher, than pure advertising.

Public relation is described as a marketing tool to deliver a message and news about the brand rather than direct sales-promotion. If a company engages in public relations it want to maintain good publicity around the brand. This form of promotion is more closely connected to the end-user. For a startup, public relational activities are used due to the lower costs compared to other types of marketing activities. Public relations can be targeted to different audiences and different groups for instance investors, stakeholders, distributors or the end consumer. Some scholars even argue for that maintaining public relations is the only way to build a brand and that the customer or user are smarter today and sees through direct advertisement (Reis & Reis 2006).

There is a wide range of tools that the startup can use in relation to public relations. The table below outlines the most common ones.

<b>Tools</b>	<b>Definition</b>
News	The creation of favorable news for the company. Can both occur naturally and be setup by the promoter.
Speeches	Refers to when an executive speaks in front of an audience and create a buzz around that speech. A common example is Apple's former CEO Steve Jobs presentations.
Special events	Special events could be tours, conferences, opening ceremonies around the company that creates awareness.
Written materials	Written materials are simply material that is sent out to an target audience with specific content. It could be in forms of a press-release or other relevant informational material about the company.
Audiovisual material	Adding on to the written material audio-materials such as videos, slide- and sound programmes is within the toolbox of public relations
Corporate identity materials	Materials such as business cards, logos, brochures and recognizable signs in general can be used to build a brand.
Public service activitites	Refers to good-will activities around the company that puts the company in a position of good cause.
Sponsorship	For instance sponsor a sports-club and build the brand around events of others.

*Figure: 8- Public relation tools Source: Kotler et. al. 2011*

As described above public relational tools are implemented in the same way as general marketing tools though, how to measure the effect accurately is often difficult. The impact is often indirect and

it is hard to see whether the activities have given a significant effect on the brand identity, awareness and conversion. (Kotler et.al 2011)

To give a broader understanding on how this thesis has been analyzed, a brief description on measurements of advertisements in a web 2.0 setting is concluded below. When evaluating a campaign over the internet certain metrics are used. The spread over the internet for public relational activities is in general a good way of raising awareness. (Kotler et.al 2011)

Also conducting a controlled experiment, investigating the cause and effect can be a good way of measuring the effects. (Kotler et.al 2011)

Although the measurements needs to be outlined. Measurements in terms of marketing over the internet is usually around click throughs (CT), Click-through rates (CTR), price-per-click (PPC).

CT referred to click through is a basic outline of how many clicks over the internet certain material has gained. The CTR is referred to the amount of clicks divided by the amount of impressions of an campaign in total. Price-per click simply refers to the average cost of each click that was generated for an ad. (Campbell et al. 2011).

## **2.6 Summary**

The theoretical framework constitutes of the concept of crowdsourcing, a broader definition and explanatory framework of web 2.0 as the basis for the phenomena. Literature on what crowdfunding is, how it is defined, which motivational factors there are for the individual to pledge and which factors there are for a startup to engage in a crowdfunding activity, have been reviewed for this chapter. Conclusively the chapter ends with an description of the use of public relational activities and how to measure effect of those as a ground to analyze the experiments based on Kotler et.al (2011) principles of marketing. In summary the theoretical framework that is major for this thesis is condensed as follows.

Many scholars are still concerned with the basic principles of crowdfunding and therefore some of them referees to web 2.0 (Lee et.al 2008, Kaufmann 2008, Hildebrand, Puri & Pocholl 2013) or Crowdsourcing (Lambert & Schwienbacher 2012). But crowdfunding is emerging (Kappel 2009, Hemer 2011, Ordaining 2011, Belleflamme & Schwienbacher 2012, Lerralde & Schwienbacher 2012, Lehner 2013, Colombo et. al 2015).

Research about motivational factors emerge and newly published articles deal with motivational aspects for crowdfunding. Agrawal et.al initiate an explanatory study of the geography of crowdfunding. Argawal et.al (2011) Gerber et.al (2013) make a semi-structured interview study to determine motivational aspects for project-owners and funders. In the same domain Ordanini (2011) and Columbo et.al (2015) outline the importance of early contributions as a success-factor based on Argawals (2014) statement ”*Success breeds success*”. Success for a crowdfunding campaign is defined as reaching the funding goal (Agrawal et.al 2010).

Lambert & Schwienbacher (2010) outline tangible products rather than services and non-profit initiatives as determines of success. Allison et. al (2015) take a further step and discuss crowdfunding in a concept of financing a startup and sees a gamificational approach to make the gathering money more fun. Adding on to the startup financial part Hemer (2013) provides a framework on which platforms that are more suitable depending on the organization, which later implies higher chance of success. Ramachandran (2010) sees the importance of having external measurements outside the platform in order to reach the project goal. For instance being present in top-5 lists or having influential individuals such as celebrities or investors endorsing the campaign. Burton et.al conclude crowdfunding and its different forms as an alternative for start-up finance, beside from the classical family friends and fools that traditionally finance startups (Burton et.al 2015). The linkages between interaction-marketing and the analogies of web 2.0 makes public relational tools suitable for a startup to successfully spread the campaign. (Lee et.al 2008, Kotler et.al 2011). As an example written material such as press-releases and interactional material on Facebook and twitter can be tools that breeds success. Although there are no academical contribution to whether this is true, that public relational tools leads to greater success for a campaign. This implies the following list of key aspects in the theoretical framework and hypotheses that is used for answering the research questions in the longer run.

- Crowdfunding characterizes of the broader concept of crowdsourcing and the analogies of web 2.0.
- Motivational aspects for a crowdfunding campaign differs between the funder and the project owner. Majorly the project owner wants to get its project funded but has also interests of spreading awareness. The funder wants to be a part of a community and contribute to that. Also

the funder can be motivated by formalizing contracts and does not necessary need to be inside the crowdfunding community from the start.

- Even though only nascent research is done on drivers of success, the most important parts that could be concretized were early contributions, external and internal social capital and high level of participation within social networks.
- In regards of public relations, it is easier to reach out and let people participate and interact if such tools are used.

## 2.7 Hypotheses

Assumption 1: When including Promotional activities outside the platform in a campaign that leads to higher awareness and higher spread for the campaign, the assumption is that if a start up wants to launch a crowdfunding campaign, it is essential to use promotional activities to spread the campaign. It cannot solely rely upon the platform itself promoting ideas. This leads down to hypothesis 1.

**Hypothesis 1: When promotional activities outside the campaign-platform are included it leads to higher awareness for the campaign e.g. more people will see the campaign.**

Assumption 2: According to Colombo et.al (2015) it is of importance to engage a community and tap the right crowd. Since early contributions increase the legitimacy among funders it is therefore important to spread the campaign quickly. The base of this assumption is that when spreading the campaign to a bigger audience it leads to more people contributing than if not. Meaning: including PR as a dependent variable leads to more contributions on average than if not including PR.

**Hypothesis 2: When promotional activities are included in a campaign it leads to more contributions in terms of amount of people contribute to the campaign than if not. There is a positive relationship between promotional activities and amount of people contributing.**

Assumptions 3: Leading on to Agrawals et.al work about motivational aspects on why people pledge on a crowdfunding campaign the author states different aspects (see theory chapter). Also Agrawal et.al (2014) states that getting the information from a different source than the

crowdfunding campaign, leads to an increased legitimacy for the campaign in total. When exposing these people to PR the assumption is that they will on average pledge a higher amount than if they would not be exposed to PR.

**Hypothesis 3: When people are exposed to campaign specific PR outside the platform it will lead to them pledging a higher amount on average than people who are not exposed. There is a positive relationship between people exposed to promotional activities and the amount of money they give away.**

### 3. Research method

The outline of the methods that has been used in this master thesis is primarily a way of providing details on the data that the research is drawn upon (Bryman & Bell 2011:686). The inclusion of the research design, sampling approach and accessibility to information within the research are issues that is presented in this chapter (Bryman & Bell 2011:681). The reasoning why certain approaches and actions were taken will be structured and argued for in a systematic way. The study takes a deductive approach of testing theory as the main purpose, in order to explain real-life empirical findings about crowdfunding (Bryman & Bell 2011).

#### 3.1 Theoretical considerations

According to Whetten (1989) a complete theory consists of four essential elements which in later stage constitutes and legitimate the theory building. Most scholars face the reality that they are not going to generate a complete new theory; instead they build upon already existing work. Problems arise when judging what is enough for a theory to be a theory (Whetten 1989:492). Only adding new variables to a particular field does not constitute a theory, but a strong relationship between the variables makes the field more reliable. In order to strengthen a theory, relationship among the variables becomes important. If the theoretical framework in general is vague and only on its emerging way the constitution of a broader theory needs to be considered with greater amount of terms.

In this case many of the scholars present the field of crowdfunding as a stand alone field as *nascent*, *embryonic* and *emerging*. One of the most cited crowdfunding researchers Belleflamme clearly describes the particular field as nascent (Belleflamme 2012). Other scholars also point out the small but rather growing attention of crowdfunding. (Hemer 2011, Agawal 2011, Colombo et.al 2015, Hemer 2013, This implies for two methodological considerations for this thesis. First of all the theory, which is rather small, can and should take concepts and ideas from other fields related to the topic. (Whetten 1989). Therefor the concept of public relations on the Internet is included. Gummesson (2000) discloses management research as divided, and consultants who uses pieces of theories and combine them and then it contributes to real life practice. This thesis is then suitable for explaining related clusters of theoretical contributions in order to explain a field which is rather

small. To be more specific external referrals, basic concept of the web 2.0 and the public relation process in terms of marketing is used as explanatory additions to the crowdfunding framework. The selection of the theory is based on the literature review where concepts such as web 2.0 and crowdsourcing were mentioned widely. (Lee et.al 2008).

Secondly, theories can be divided into two areas of development. One where the theory is already matured and has an adopted definition of the area of research. When conducting quantitative business research with a theory that consists of a broad concept, which is adopted, it is a fairly straight forward process. This case uses a a smaller range of matured theory, and should therefore be categorized in the second type of area for theory, which is simply defined as nascent. (Edmondson et al. 2007). When a nascent type of theory is investigated it is more of an interactive process. The reader should be aware of that the understanding from this thesis is by no matter a way of trying to understand the whole concept of crowdfunding but explicitly link one variable responsible for the phenomena in total.

By reviewing the existing theory and formulating hypotheses based on the existing findings that are commonly agreed upon among scholars, t (Bryman & Bell 2011) It means the thesis have a deductive approach with the mindset of a naturalistic view of conducting research. A deductive approach is in its pure form a linear process which is also followed in this case. Hence, the notion of nascent theory and that an iterative approach was used to revise hypotheses according to important findings in the theoretical framework (Edmondson et. al 2007). The approach on how this work has been processed can be seen in the figure below.



*Figure:9 - Research strategy Adopted from Bryman & Bell 2011.*

The deductive approach signifies a relationship between theory and research where theoretical considerations are used as the ground point for the research. (Bryman & Bell 2011). This also implies that the hypotheses are drawn from the theoretical framework. In this case, initial hypotheses was written down and after inclusion of the theory revised in order to match the theoretical framework, very much in line with how experimental research design is usually conducted. (Bryman & Bell 2011). Based on this deductive approach of a quantitative study the epistemological and otological considerations are outlined in the frame of positivism by using a naturalistic approach and imitating natural sciences. (Bryman & Bell 2011) In relation to this position the work have an otological approach which is defined as objectivistic.

### **3.2 Literature review**

Searching on the word crowdfunding via the internal library network, gives a certain amount of results. Though, screening abstracts of those results gives a notion of that the field is rather small. As mentioned above, in order to draw theoretical conclusions about crowdfunding inclusions of other fields needs to be considered. (Belleflamme et.al 2013). The approach used was to map certain words in relation to the topic in order to fulfill a positivistic view on acceptable knowledge. (Bryman & Bell 2011). This was done in two steps first with "crowdfunding" and "success factors within Crowdfunding" as main words. Reviewing existing literature based on those words gave

indications of how to broaden the search by including other concepts within the literature research. Besides extracting keywords from abstracts and works around crowdfunding, the research question constituted of a basis for extending the theoretical scope. Concepts such as "PR", "Crowdsourcing", "Web 2.0", "Advertisement measurements on the internet" and "Startup finance" were included in to widen the scope. These words became the foundation of the search in the databases provided by the university library of Gothenburg University<sup>3</sup>. As an addition to the databases provided by the university library, Google scholar was used as a compliment to assess the quality of material and also extracting notion of other works closely connected to the ones assessed.

Reviewing the literature for a graduate work implies defining a boundary and judging the quality of the work from others. To use a full fledged systematic approach is more suitable refereeing to the epistemological considerations. Bryman & Bell (2011) emphasize that a systematic review should include all the kind of papers, even not published and conference documents. Although reviewing literature with a systematic approach takes time and effort and therefore limitations needs to be made. The approached used for finding suitable literature on the topic consisted of:

1. Searching via University of Gothenburg's electronic sources.
2. Complementing with google-searches on the website google scholar.
3. Screening abstract for relevance.
4. Reading conclusions.
5. Proofing quality by searching on the journals raking among other journals.<sup>4</sup>

For the notion of the reader this approach can be used more precisely and include more documents and work in a more inclusive way, but a limitation had to be made due to time related issues. Also the lack of crowdfunding articles in respected journals made the literature review harder. Following section consists of tendencies of crowdfunding literature in order to give a representable discourse on crowdfunding.

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<sup>3</sup> All the databases available at: <http://www.ub.gu.se/sok/db/results.xml?keyword=ddc396ec&category=> accessed 2015-05-02

<sup>4</sup> [http://www.scimagojr.com/journalrank.php?category=0&area=1400&year=2013&country=&order=sjr&min=0&min\\_type=cd&page=1](http://www.scimagojr.com/journalrank.php?category=0&area=1400&year=2013&country=&order=sjr&min=0&min_type=cd&page=1)

### **3.3 The nature of experimental design**

It is rather uncommon to conduct business research in an experimental form due to a lot of reasons; it is hard to isolate a variable, other factors might influence and it is hard to control an experiment and doing a controlled experiment in a real-life setting is seen to be especially difficult. (Bryman & Bell 2011). Despite that when a proper experimental design is used it is perceived as a yardstick in business research and the internal validity tends to be strong. (Bryman & Bell 2011). Since Internet in this case makes it possible to create two identical campaigns on the same platform, it is possible to create a controlled experiment in that matter.

This study is simply conducted with a classic experimental approach: by having two identical groups and give the first group a "treatment" while the other is not exposed to the treatment, a manipulation of variables have been made. It should be noted that the experiment is conducted in a real-life setting, which can be characterized as a field-study in terms of Bryman & Bell (2011). In this case the independent variable is public relation-activities outside the community (Kickstarter). The two experiments were launched and the first observation was made the first day when the campaigns had the same attributes. The Capturest campaign was given the treatment; e.g. outside PR from different sources, online communities, social media, a press release, and spread via the word-by mouth. The other campaign remained published and exposed to the community inside the platform of Kickstarter.

The major advantages of conducting an experiment in this way are to eliminate rival explanation of casual findings. (Bryman & Bell 2011). There were some aspects on experimental design that were considered in beforehand and issues that needed to be considered. In business-research Bryman & Bell 2011 indicate three prominent criteria: reliability, validity and replication. Each one more or less concerned within experimental design. Thus, some aspects are outlined as more important. Therefore, based on Bryman & Bell (2011) framework on experimental design, the potential threats are outlined in the table below.

<b>Threats of Experimental design</b> 1. Internal validity 2. External validity 3. Ecological validity 4. Replicability	<b>Impact for this experiment</b> Outlined commentaries regarding these experiments and how considerations has been made.
<b>1a. Testing:</b> Refers to the potential problem that subjects might be aware of the aims of the experiment and therefore experience the same effects. See Frayne & Geringer (2000).	The risk of being exposed to the testing-problem for these experiments is reduced by having different names on the campaign. There is no risk that the subject that are exposed to the PR-activities would mix up the two campaigns and pledge money on the wrong campaign. Thus the risk of the name itself become more appealing and therefor can be an alternative explanation of differences in the experiment increases.
<b>1b. History:</b> Refers to the risk that <i>”possible events in the experimental environment, unrelated to the manipulation of the independent variable, may have caused the changes”</i> . (Bryman & Bell 2011). Often this risk refers to large scale events such as natural disasters.	In the case of this experiment no big or large scale events occurred. The potential risk of Kickstarter it self gaining bad publicity or similar events did not occur. Bryman & Bell (2011) suggest to mitigate this threat is to include a control group, which was also done.

<p><b>1c. Maturation:</b></p> <p>Bryman &amp; Bell (2011) describes the threat of maturation basically as people change. From the time of the initiation of the experiment until it runs out.</p>	<p>In this case it is not applicable, since the test groups does not constitute of a sample. Also the design of the experiment does not change or mature during the experimental time, only potential risk due to this threat is that people are exposed to too much PR and therefore takes their pledged amount back. Something that did not occur.</p>
<p><b>1d. Selection</b></p> <p>Selection and the selection threat arises when there is difference between the the two groups. E.g. if there are pre-existing differences that would explain the results of the experiments. (Bryman &amp; Bell 2011).</p>	<p>First of all, all the participants in the experiments are not selected at all. The experiment is tested in a real-life setting which implies that all potential observations that could occur were made. Secondly the problem that might be eligible is that Capturess as an organization has been present for a longer period of time than the control-group. It is simply an anchor of the study. Hence, the marketing carried out from Capturess is by comparison very little (ca 80-beta signups on the website and 160 likes on the Facebook site). So the effect should then not influence the impressions widely.</p>
<p><b>1e. Ambiguity about the casual influence</b></p> <p>The threat of not knowing which variable effects one another. A problem that might arise when the temporal sequence is unclear. (Bryman &amp; Bell 2011)</p>	<p>For this experimental design it tend to be clear that PR itself has a casual influence on the campaign. Bryman &amp; Bell (2011) outline that the presence of a control-group mitigate the risk. However the casual influence of amount videos played correlated to the amount of pledgers might be a cause for this threat. Thus, the experiments has been set-up according to the logic of the platform that first people watch a video and then pledge money. In the case of this experiments one group is exposed to PR and the others are not which then could be measured over the amount of unique watchers of the video.</p>

<p><b>2a. Interaction of selection and treatment:</b></p> <p><i>Raises the question to what social and psychological groups can the findings be generalized?</i> (Bryman &amp; Bell 2011). Which implies in which range can the findings be generalized within.</p>	<p>This threat relates to the generalization and in this case all of the observations that could be made were made, thus no extensive demographical analyzing were made. In findings a table of from where the clicks arrived from showed that it was primarily Swedish people who saw the campaign, which might give implications that people from different countries behave differently. So as a limitation the reader should have the notion of that results was majorly derived from a Swedish context.</p>
<p><b>2b. Interaction of setting and treatment:</b></p> <p>Takes up the notion that the experiment can be applied in other settings and the threat that the organization itself act as a limitation.</p>	<p>Since this work is already limited to startups with a for-profit focus then the results should be seen in that context and by no means has the author the intention of consider this work in terms of individuals or non-profit organizations. Hence the settings can be applied and tested in the same way.</p>
<p><b>2c. Interaction of history and treatment</b></p> <p>Takes up the threat of that the results cannot be applied in past and future. How confident can the researcher be that the results can be applied in todays settings.</p>	<p>The simple implication for this question, this study cannot. Since crowdfunding is a relatively new phenomena to implement the results in the past would be near to impossible. Although consider the findings and implement them into todays setting should be applicable.</p>

<p><b>2d. Interaction effects of pre-testing:</b></p> <p>People who have been pre-tested gets sensitized to the treatment and therefore results might not be applicable to groups that have not been pre-tested.</p>	<p>Since this experiment was conducted in a real-life setting as a field study, no pre-testing were made and therefore is this threat non-applicable. Just in line with what Bryman &amp; Bell (2011) suggest.</p>
<p><b>2e. Reactive effects of experimental arrangements:</b></p> <p>People who are aware that they were a part of an experiment might act differently than if they were not. It might affect generalizability.</p>	<p>This threat is not applicable to the study, none of the pledgers nor those whom got exposed to the PR-activities knew the setting of the campaign as a purpose for experiment. Since the campaign aimed to be successfully funded and since no connections were made between the campaigns it risk is minimal that this threat would be applicable.</p>
<p><b>3. Ecological validity</b></p> <p>Concerns the question whether social sciences are applicable to people's everyday life. The more the social scientist intervenes with the natural setting the more likely the experiment is to be non ecological valid.</p>	<p>Since this is a real-life experiment and no intervention of the settings were made ecological validity is perceived to be high.</p>
<p><b>4. Replicability</b></p> <p>Can the study be replicated in the same way with the same findings. This threat relates to that the researcher should be completely open with the measurements and procedures, however, different techniques of analyzing the same findings might result in different interpretations.</p>	<p>The following section clearly states hw the research were made, its process and the procedures. The statistical analysis were made in a simple but well-proven way so the replicability should be high. Also the Kickstarter platform enable certain tools to measure activity on the platform and for another researcher these tools can be enabled in the same manner.</p>

Figure: 10 - Threats to experimental design, Source Bryman and Bell 2011.

### **3.4 Research framework how was the experiments executed.**

To be able to reach the levels of replicability the researcher should be able to provide in detail how the study was conducted. This section is composed as following: first Capturest as an organization is presented and why it is suitable for a crowdfunding campaign. After that the Kickstarter platform is described. In addition, the experiment itself is presented and how the information and sample was achieved. Furthermore, this section includes a description on how the findings were analyzed and which methods were used to do that analysis. Conclusively this section ends with a description of anchors and limitations regarding the study.

#### **3.4.1 Capturest as the case of the experiment**

First of all, to understand the organization itself should be considered important in an entrepreneurial context in order to grasp the idea of why participating in this kind of crowdfunding campaign. Since Crowdfunding is considered as an alternative for financing a startup, Capturest was indeed eligible for this kind of research. Also since the author is a part of the founding of the startup, accessibility to information was made easy. One might see the involvement of the organization as an anchor but with an experimental design that has a high internal validity and with concrete descriptive statistics that bias is mitigated.

Capturest itself is a Gothenburg, Sweden based startup in the range of technology, according to Kickstarter. The startup develops a mobile application to the end-consumer market for documenting moments. It could be categorized within the life-logging applications. Therefore reaching out to the crowd can not only be seen as a way to raise capital but also a way of spread awareness. (Colomo et.al 2015)

Capturest lacks financial capital and in line with the research, crowdfunding is a suitable way to fill that gap.

### **3.4.2 Kickstarter**

Kickstarter is the crowdfunding platform that was selected for this experimental approach. It is an U.S based company that was launched in 2009. Over the years has this platform become the biggest among crowdfunding platforms with over 84 000 projects. The unique features of Kickstarter that distinguish the platform from others are that it is merely a platform, meaning that the company itself does not interfere with the process of making the projects. Though, they endorse certain projects and give help by enabling a creators handbook with tips and tricks. At the Kickstarter platform the project owner maintain the full ownership of the project and Kickstarter does not engage in exchanging ownership. The business model is instead based on commission in two levels. Firstly the company charges a commission for the project owner of 3-5 % of the total amount of the pledged money. And secondly towards the funder with a commission of 3-5 % of the total amount pledged. Kickstarter is in the domain of donation based crowdfunding (defined in the theory chapter) and have a model of all-or nothing funding, which implies that the a project needs to set a goal at a certain period of time and if that goal is not reached the money will not be charged the funder nor paid to the project owner. Financial incentives is not allowed due to the positioning of the company and other legislative reasons. ([kickstarter.com/hello?ref=footer](http://kickstarter.com/hello?ref=footer)).

### **3.4.3 Public relations in practice**

Next step was to give the treatment group the treatment. It was done by enable social media links such as Facebook, Twitter and Instagram. Both for internal networks and external networks via advertisements. In addition press-releases were sent out to gain attraction and word by mouth was spread. Since comparability only can be made over the kickstarter platform the video constituted as a base for the later statistical analysis. The use of public relational activities was based on the framework concretized by Kotler et.al (2011) and created and maintained good publicity around the startup. This was done majorly via the Internet platforms and the following activities was included:

- Creating an Instagram account interviewing mothers and write a short story on how they capture moments, then insert the link to the campaign.
- Creating targeted stories to specific groups and push them on Facebook and Twitter.
- Using articles around the company with an inserted link to the campaign.

To help the reader to better understand how the framework of Kotler et.al (2011) has been used, a model that describes such public relational tools is created below. The model merges the basic requirements of web 2.0 (openness, collaboration and participation) and firstly put them up as requirements when spreading the campaign promotion. Secondly the same things was done with startup limitations according to Capturest<sup>5</sup> (this concerns budgeting and time), certain PR tools that Kotler et.al (2011) suggest is basically not suitable due to cost, time or it does not go in line with the principles of web 2.0. Thirdly taking those two requirement steps and match them with PR-tools gives Capturest the toolbox of spreading the campaign.

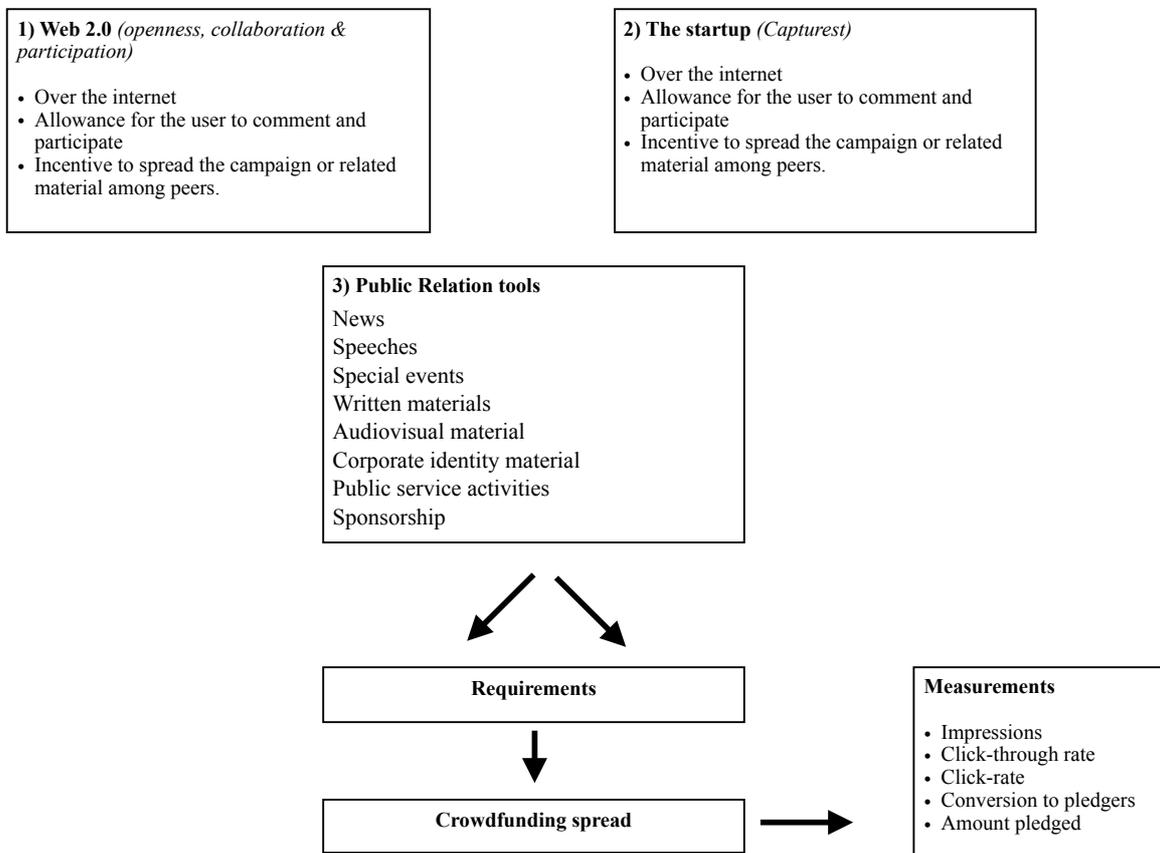


Figure: 11- Public relation proceeders

<sup>5</sup> Note to the reader, these requirements was utilized according to the founders of Capturest and are by that limited.

Comparing the unique people who watched the video, with average means of people pledging and average amount of money they pledged to the campaign, was used as the baseline. The comparison was made after campaigns ended, the 29 of April. This date was set due to have as long time as possible for people to pledge money but at the same time for the author being able to analyze the results. For further information about the text that was enabled within the campaigns and screenshots of how the Kickstart platform looks like when starting a project, see appendix. 1 and 2.

#### **3.4.4 Experimental procedures in practice**

To set up the experiments some work was required in advance. This following section will outline, step by step, the procedure and the process of how this experiment was conducted.

1. Setting up accounts on the platform enables an individual to start a project. By setting up an account, Kickstarter promote inserting personal information and link social media accounts to the profile page (Appendix 3)
2. After setting up an account, the next step is to start a project. The project consists of five different categories that needs to be filled out. Basics, Rewards, Story, About you and Account.
  1. Basics relate to the project in a short manner with a picture that represents the project. In this category the project owner will fill out the sub-category in which domain the project are, for how many days it will go on and how much money the funding goal is.
  2. Kickstarter is a donation-based crowdfunding platform and they have evolved a reward-based system. The next step for the project owner is therefore to fill out which types of rewards the backers will receive and for what amount of money. There can be an unlimited number of rewards.
  3. The third part is to describe the project in detail. According to the project handbook, a video increase the likeliness of getting funders, so composing a video is necessary for this platform. Besides is a longer description of the project provided on the story-side. At the bottom of the page the project owner is asked to outline potential risks and challenges of the project. Two similar videos was set up<sup>6</sup>. For the experimental design it is of importance that the two videos are as much alike each other so cautiousness was taken when setting up these videos.

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<sup>6</sup> Both of them can be reviewed electronically via :insert link

4. About you is the same information that the project owner was asked to fill out when creating the account in order to pledge other projects.
5. Lastly, account-information relates to the individual behind the campaign. In order to maintain high legitimacy the project owner is asked to verify him or herself with identification, such as drivers-license or passport. Also information about residency and bank account are asked for.
3. Before launching the campaign the project owner have the possibility to preview and send out invitations for certain people to review the content of the campaign, in order to proof read and so forth.
4. When Kickstarter has confirmed that the project are according to their rules it is ok to start receiving money.

In this specific procedure of setting up both the campaigns, two accounts were created, the video that has been pre-produced consisted of three minutes of material where the idea was described. The only thing that differed was the name within the video. The treatment group used the name Capturest and the control group used the name Storyt<sup>7</sup>. Although the aim for the experiment was to have the videos as similar as possible, in order to make it valid, the name were an aspect that could not be accounted for within the experiment process. These properties were presented as following: Name of the project creator different, different name on the campaign, different colors for the logo, slightly different location for the project. Even though these above mention things were different the assumption is that they would not have impacted the campaigns majorly. Before starting enable and expose the Capturest campaign with PR, a [bit.ly](#) link was provided. The [bit.ly](#) link was used as a tool to analyze traffic that arrived from the different public relations activities. The link was inserted in every informational aspect regarding the campaign. Even though it was not possible to do the same for the control group, the [bit.ly](#)-link provided an estimation of how many clicked and gave information about conversions to the platform. Next part of the experimental design was to use tools and analyze the results.

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<sup>7</sup> Storyt as selection of name was used due to that it was possible to secure that this name was not in use. Both e-mail addresses, social media accounts and web-domains were checked for in order to not confuse potential backers.

### 3.4.5 Descriptive and bivariate analysis

Based on the hypotheses, testing was conducted in order to either confirm or reject. For the first hypothesis a descriptive model was used to explain. For the findings the amount of played videos, demographics around which the people who saw the video were and other information about the sample, was included. Since comparability among the experiments only were able with the statistical tools inside the Kickstarter platform some of the more in depth statistics were only available for the treatment campaign. For the bivariate statistics two tests were made, one with the chi-square method and one with a T-test. The chi square method analyzes absolute frequencies in a contingency table. This in order to test the  $\mu$ -hypotheses and to be sure if there is a casual variance between two variables. (Kröner & Dahlgren 2011). In the experiment for the first test the variables were coded as pledged (1) and not-pledged (0). It was measured over how many people who watched the video. (Kröner & Wahlgren 2011)

#### 3.4.5.1 Chi-square

The procedure of using chi-square as statistical methods is explained as follows.

1. Formulation of two hypotheses  $\mu_0$  &  $\mu_1$ .  $\mu_0$  means that if differences are measured it is explained by casualty. There is no difference between the groups.  $\mu_1$  means that there is a not by casual influence that people pledge the campaign. It is difference between the groups.
2. Next step is to calculate the expected value of a random sample (E).
3. If there is variance among the to groups the basis is that the  $\mu$ -hypothesis is true and and the variance can be explained by randomization.
4. The next part compare the observed values with the expected ones and utilizes in this test- function. The test function in this experiment proves if the variance is casual or if it is actual differences among the groups.

$$X^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i}$$

*Figure: 12- Chi-square formula*

$x^2$  = chi-square

O= observed value

E= Expected value

5. To test the statistical significance whether the  $\mu_0$  can be rejected there should be a large variation between observed (O) and expected (E) values. To find out whether this is the case a critical value was calculated. To get the observed values it was coded in an arithmetic way which means that those who did not pledge was coded 0 and those who did pledge 1.
6. The distribution of the amount of degrees of freedom (DF) decides on how far right the critical value is weighted. The degrees of freedom is calculated

$$DF=C-1.$$

DF= Degrees of freedom

C=Categories

7. Last step was to test the statistical significance, this was done on socialstatistics.com The test implies that the critical value should be over a certain level of significance to conclude that the difference is not random. The means and the standard deviation was calculated and the variance compared. In order to measure if the findings were statistically significant a contingency table was used as the base of conducting the chi square-test.  $\text{mean} = \sum x\text{-values}/n\text{-observed}$ . Standard deviation calculated the root of  $\sum(x\text{-values}-\text{mean})^2/n\text{-observed}-1$ . (Kröner & Wahlgren 2011)

$\alpha = \text{significance level, 1, 5 or 10 \%}$

$$\bar{x} = \sum \frac{x_i}{n}$$

*a. mean-value*

$$S = \frac{\sqrt{\sum(x-\bar{x})^2}}{n-1}$$

*b. standard deviation*

*Figure: 13- mean value and standard deviation formula*

### 3.4.5.2 T-test

For the T-test the same principles as the chi-square test was applied, thus difference in the way of coding made the chi-square not applicable. Instead numerical variables was used to code the observations. Instead of 0 and 1 in the T-test the variable could have any value e.g. the value of what each person pledged. T-test are used to compare means, if the average mean from one sample where a treatment was given could be interpreted as not random and a conclusion can be drawn that the two groups differs by mean. Although only comparing means does not give the exact evidence so testing whether the result is statistically significant can distinguish random variation within the means and statistically significant variation between the means. (Kröner & Wahlgren 2011)

1. Starting by calculating the mean and the standard deviation, by the same equations mentioned in the chi-square section (mean= $\sum x\text{-values}/n\text{-observed}$  and the root of  $\sum(x\text{-values}-\text{mean})^2/n\text{-observed}-1$ ).
2. Putting in the raw data, in numerical terms for the both columns x and y where X is the treatment group and Y is the control group.
3. Setting up the formula described below and calculating the t-value and degrees of freedom.
4. Last part is to calculate the statistically significance level ( $\alpha$ ). (Kröner & Wahlgren 2011)

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{N_1} + \frac{s_2^2}{N_2}}}$$

Figure: 14- T-test formula

$\bar{x}_1$  &  $\bar{x}_2$  = mean

$N$  = number of scores per group

$s^2 = \sum(x\text{-mean})^2/n-1$

The above mentioned statistical tools has been used to answer firstly the hypothesis for this thesis and later the research questions. In order to clarify which tools has been used to which hypotheses the following section outlines each one of them.

### 3.4.5.2 Hypothesis 1

*Hypothesis 1: When promotional activities outside the campaign-platform are included it leads to higher awareness for the campaign e.g. more people will see the campaign.*

$\mu_0$ : Not higher awareness for the treatment campaign.

$\mu_1$ : Higher awareness for the treatment campaign.

Since the tracking tools available for Kickstarter did not support back-links that could track the exact amount of impressions and click on each campaign the videos played constitutes of the main source of comparison. For this hypothesis descriptive statistics has been used, more in depth statistics could be gained from the [bit.ly](https://bit.ly) link. The overall statistics can show absolute differences between the treatment group and the control group. The things looked for was simply descriptive. To answer the first hypothesis charts and bars were used. Statistics such as amount of unique videos played, impressions, number of pledgers, amount of money, conversions etc. were among the metrics that would proof whether the first hypothesis is proven to be correct. Although there was three metrics that was considered most important.

Impression (I) = The amount of appearances that external PR material got.

Clicks (C)= The amount of clicks resulted in a conversion to the Kickstarter campaign.

Pledges (P) = the amount of money those conversions led to.

To get the above mentioned metrics the following calculations was used in line with Campbell et.al (2011) suggestions on how to measure advertisements on the internet. Again pointing out that only the amount of played videos for the both campaigns was comparable. Which implies that the

evidence of hypothesis 1 is concluded from that comparison, over videos watched and the other metrics were only important to see the magnitude behind how many impressions there were behind one unique person watching the video. The figure below shows a description on how to get impressions for a campaign.

Impressions / clicks = Impressions per user converted to campaign

Impressions per converted user \* total amount of clicks = estimated amount of impressions.

Figure: 15 - conversion formula.

### 3.4.5.3 Hypothesis 2

*Hypothesis 2: When promotional activities are included in a campaign it leads to more contributions in terms of amount of people contribute to the campaign than if not. There is a positive relationship between promotional activities and amount of people contributing.*

Hypothesis 0= $\mu_0$  = No difference between experiment groups.

Hypothesis 1= $\mu_1$  = Difference between experiment groups.

To test the second hypothesis under the assumption that people that are exposed to PR are more likely to pledge and they are more on average the chi-square test was applied. As mentioned above a contingency table was used to measure the variance among the amount of people pledged. The figure below shows how numbers was inserted into the contingency table (2x2):

	A	B	
C	a	b	n1
D	c	d	n2
	n3	n4	N

**2-by-2 Contingency Table**

figure: 16- Contingency table

A= Those who pledged for the campaign

B= Those who did not pledge for the campaign

C= Control group

D= Treatment group

$n_1 = \sum(a+b)$  = total observations for control group

a= Pledged for the control group

b= Not pledged for the control group

$n_2 = \sum(c+d)$  = Total amount of observations for treatment group

c= Pledged for the treatment group

d= Not pledged for the treatment group

$N = \sum a+b+c+d$  = total observations for both campaigns.

To confirm whether the second hypothesis could be confirmed, first the variance was looked for. It needed to be higher for the treatment group than for the control group. If the mean is larger for the treatment group the p-value (the probability of independence) and the degrees of freedom determines how to interpret the chi-square result. If that was the case then the significance level can prove whether the result is true for the whole population when a random sample is made. (Kröner & Wahlgren 2011)

### 3.4.5.4 Hypothesis 3

*Hypothesis 3: When people are exposed to campaign specific PR outside the platform it will lead to them pledging a higher amount on average than people who are not exposed. There is a positive relationship between people exposed to promotional activities and the amount of money they give away*

Hypothesis 0=  $\mu_0$  = No difference between amount pledged exposed to PR and amount pledged not exposed to PR

Hypothesis 1=  $\mu_1$  = Difference between amount pledged exposed to PR and amount not exposed to PR.

For the third hypothesis the numerical values needed to be inserted and since chi-square does not account for numerical values so instead the t-test was used. To confirm the third hypothesis the t-values was calculated and the significance level describes the evidence. The important values that were looked for in this test was first the p-value that tells the difference between the means. A low p-value can hint the repeatability for the test, (Kröner & Wahlgren 2011) meaning that it can be repeated with the same results. Also the degrees of freedom (DF) determines the critical value that is looked for when checking the significance level.

### **3.5 Potential biases**

Since the author is among the co-founders for the startup it is of value for the work to mention potential biases, a brief explanation of potential biases will be on somehow discussed. Particularly two biases are worth to mention: the establishment of already existing channels for the treatment group and the potential of having biased target groups with already existing knowledge about Capturest. This is simply hard to account for and there are no tools to mitigate that factor. Although when advertisements were made it was possible to exclude those with existing connections to Capturest, which was also done. Also the Instagram channel and the Twitter channel did not exist before the campaign. The second one with biased target groups simply refers to the founders knowledge about their customers and that the Kickstarter campaign was targeted to those who were most likely to be customers and not to the general audience. If this bias accounts for troubles within the experiments is not so sure. The founders did not have any knowledge whether these potential customers were more likely to pledge and no pre-studies were made to clarify if this was the case. The demographics among these people were not extreme by any sense. However it is something that is worth for the reader to have in mind when drawing conclusions from the results.

### **3.6 Anchors**

In the process of writing a thesis with experimental design it was of great importance that it was done the right way. Although caution was taken about every step in the process, some anchors occurred anyways. First problems that delayed the launching of campaigns occurred. Both of the campaigns were manually reviewed and at the time of launching the risk of one or the other not

being accepted concluded a risk. When both later were accepted it resulted in a delay of launch of one and a half week. That later implied the amount of time analyzing the results after the campaign.

One other anchor of the experiment was the lack of measurement tools, before the study was made one potential risk was that Kickstarter did not provide with sufficient tools for comparing the experiments. The awareness that the comparison between the people watched the video was the only measurement for effect. Even though the comparison with the video is accurate it would have strengthen the thesis to include more factors such as impressions on the site and clicks etc.

## 4. Empirical findings

In this chapter the results of the experiments will be presented. Firstly as descriptions of the overall results from the both campaigns, after that each hypothesis will be presented and findings according to that will conclude if the hypothesis can be confirmed or rejected. Also important metrics and key figures will be outlined. The empirical findings are used as a basis for the next discussion chapter where the research question is answered. The first hypothesis was majorly investigated by descriptive statistics, for the second a chi-square test was made and for the third a t-test.

### 4.1 Overall statistics

For the comparison between the two groups, videos played constitutes of the main source of comparison. The first table demonstrates the amount of sessions on every person playing the video, it is framed in unique watchers so that a watcher will only account for one time. Secondly the table shows where the video were played; off the Kickstarter site means when the video has been watch without any direct connections to the campaign. The completion rate shows for how many that completed watching the whole video, and it can be seen as a measurement on for how long people stayed at the site. The table is structured in the first column for the control group and in the second column for Capturest.

Figure 17	Control group	Capturest
Amount of unique plays: video	23	431
On the Kickstarter site	23	427
Off the Kickstarter site*	0	4
Completed video	21,74 %	20,88 %

*Figure: 17- Overall results for the campaigns*

Figure 18 shows the amount pledged, how many pledged and an average on what each backers pledged. All the numbers are in Swedish crowns SEK.

Figure 18	Control group	Capturest
Total amount pledged	5	12400
Total amount backers	1	15

Figure: 18- Pledgers and amount of money

Next table shows where the video watchers came from, in terms of which platform they derive from. Two limitations should be in the reader’s awareness. First of all, the control campaign did not have any outside referrals and therefore it is not possible to track from where the people came, instead the assumption is that they came from inside the platform. The second notion is the lack of statistical tools on Kickstarter, it is possible to see how many that watched the video, how many pledged and so forth but the exact number of people that that have entered the campaign is non trackable. Instead, to mitigate that problem and give the reader a hint where the traffic derived from a [bit.ly](#) link was generated. The link was inserted in every activity or promotional message referring to the campaign. Even though the link is limited and cannot account for all the traffic it gives a hint from where the it derived. The results from the [bit.ly](#)-link are presented in figure 19.

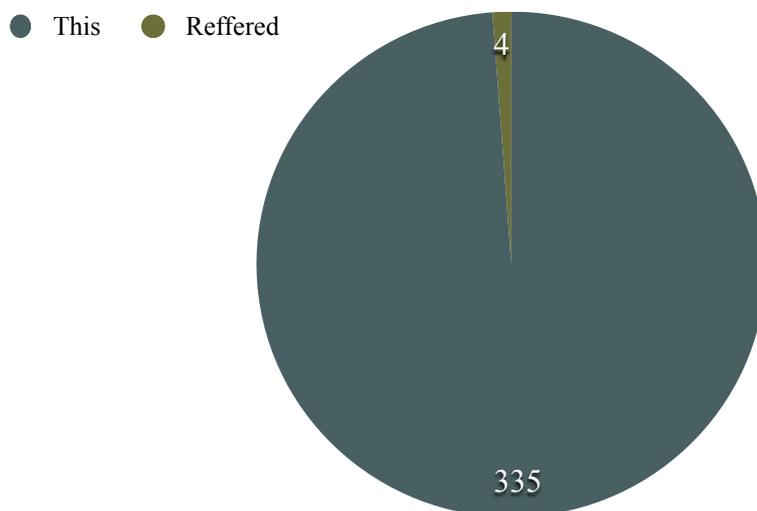


Figure: 19- Capturest campaign referrals.

The chart shows of how many unique clicks there were on the link. It distinguishes between the link that was generated and links that referred to that link. In total there were 339 clicks.

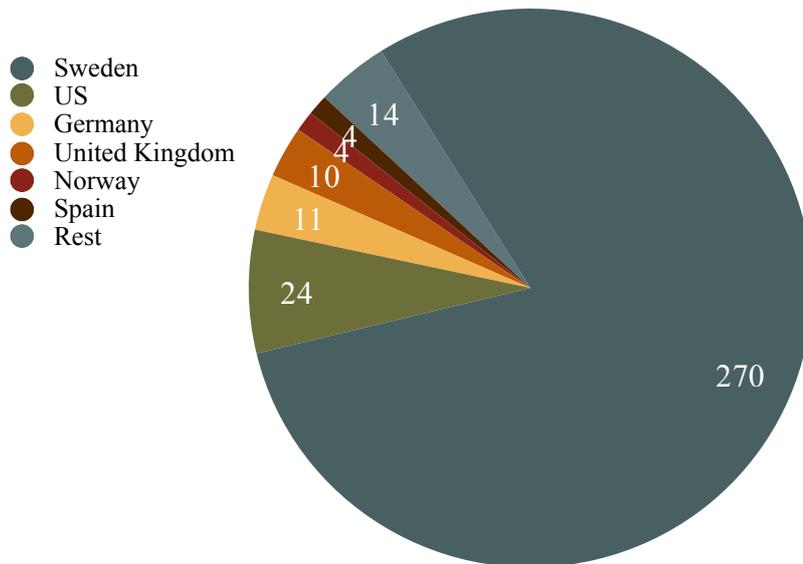


Figure 20 - Countries from where the traffic derived

The people who clicked was primarily from Sweden but a range of other countries such as United States and Germany was in the compilation.

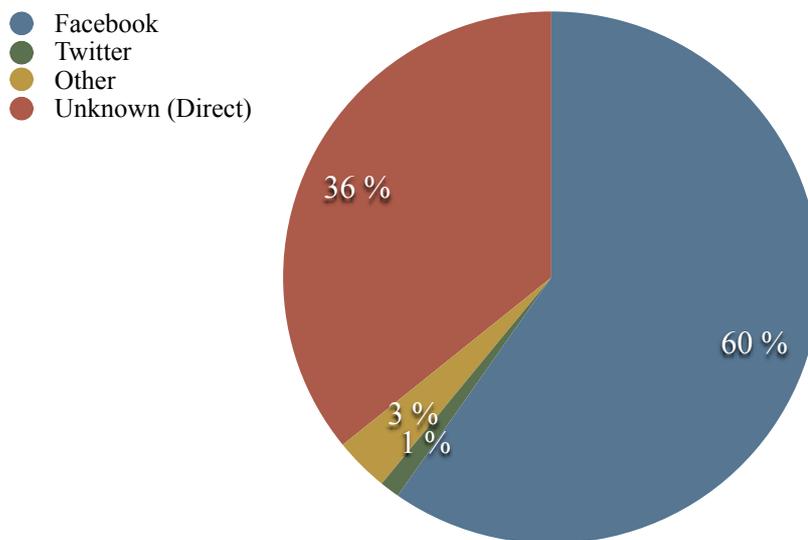


Figure 21 - From which platforms did the traffic derive.

Primarily the traffic derived from Facebook and breaking down the statistics it covered, mobile, desktop and chat-referrals. In the category unknown it refers to direct traffic, for instance SMS or chat functions beside from Facebook. Out of the people who pledged money to the campaign they came from different sources. Figure 22 shows from where the backers found the campaign.

Search constitutes for people going to the Kickstarter platform searching for Captarest. [facebook.com](https://www.facebook.com) is traffic generated from Facebook. Direct traffic means getting instantly to the campaign (example via the [bit.ly](https://bit.ly) link). Advanced discovery (search within the Kickstarter platform) is in difference to regular search when a person find the campaign via the categories within the platform. [google.se](https://www.google.se) is when the person searched for "Captarest Kickstarter". An attachment is when a link to the campaign was attached in a social media post.

Next figure shows demographics about the amounts that the pledgers backed the project with.

Figure 22	Amount SEK	Number of pledgers	Percentage
Direct traffic	1400	5	11,29 %
<a href="https://www.facebook.com">facebook.com</a>	200	3	1,61 %
Search	10100	2	81,45 %
<a href="https://www.google.se">google.se</a>	400	2	3,23 %
Attachment	100	1	0,81 %
Advanced discovery	200	2	1,61 %
<b>Total pledged amount</b>	<b>12400</b>	<b>15</b>	<b>100 %</b>
<b>Average</b>	<b>826</b>		

Figure: 22- Pledgers for the treatment campaign

Next figure shows an estimation of how many impressions there were behind each click. Impressions means people who have seen the campaign or the promotional activities around the campaign. In this case Facebook Ads manager provides with information regarding the reach of the campaign. Since the availability to collect the exact number was limited on Kickstarter, these calculations are made under the assumptions that they are normally distributed and representative for the other platforms. Since Facebook provides the information on how many that saw the referral, it can be calculated how many impressions there were on each Facebook-pledger. There were in total 200 conversions from Facebook to the Kickstarter campaign, 70 of them derived from advertisement-activities inside the platform. Facebook estimates that 4617 impressions were made in order to reach those 70 clicks<sup>8</sup>. That implies a click-through rate (CTR) of 1,21 %.

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<sup>8</sup> Clicks refers to conversions to the kickstarter campaign.

Figure 23	Impressions	Clicks	Click-through-rate (CTR)
Facebook	4617	70	1,21 %
Twitter	5436	51	0,94 %

Figure: 23- Metrics from Facebook and Twitter

Knowing that 200 clicks constituted the whole conversion from Facebook to the Kickstarter campaigns and knowing that 70 indicated 4617 impressions leaves out ca 66 impressions per click. Calculating 66 impression equals one click times the total amount of clicks (for Facebook) gives 13200. Figure 24 shows the numbers in a table format.

Figure 24	Total amount of clicks	Estimated impressions
Facebook	200	13200
Total all sources	339	22374

Figure: 24-Estimations impressions over Facebook and bit.ly

As a notion to the reader the numbers of unique video watchers for the Capturest campaign (431) overtrump the total amount of clicks on the [bit.ly](http://bit.ly)-link (339) and therefore the number should be seen as an indicator and the calculations does not show the relation between clicks and video watchers.

#### 4.2.1 Hypothesis 1

The first hypothesis is if including external public relations to the campaign that leads to higher awareness. The  $\mu_0$  can be rejected if it is substantially more awareness in terms of impression, clicks, videos watched and pledges for the treatment campaign.

##### 4.2.1.1 Unique plays: video

$\mu_0$ : Not higher awareness for the treatment campaign.

$\mu_1$ : Higher awareness for the treatment campaign.

Figure 24 demonstrates the amount of unique plays. For the control group it was 23 and for the treatment group 431. Comparing the two values from the two campaigns gives the treatment campaign 95% of all the impressions, which by itself is substantially higher. Looking at those who completed the whole three minutes video, gives the result that both were about the same (21,74% & 20,88%). That means that there was no difference among the quality of those who watched the video.

Figure 25	Control group: A	Capturest: B
Amount of unique plays: video	23	431
Completed video	21,74 %	20,88 %
Total $\Sigma(a+b)$	454	
Percentage	$\approx 5\%$	$\approx 95\%$

Figure: 25- Comparison over videoplays

#### 4.2.1.2: Clicks and impressions

According to Campbell et.al (2011) to see if a campaign is successful the click-rate is calculated. In total for the treatment campaign there were 339 clicks (Generated by the [bit.ly](#) link). Since statistical tools were not available for the control group, the calculations are based on the assumptions that the results are normally distributed. Looking at table 7 the estimation resulted in 66 impressions per click. For the treatment campaign (Capturest) in total there was 22 374 impressions. Before comparing the number to the control group the numbers needs to be compared over the amount of pledgers. Following equation was used: Impressions (I)/clicks (C) = click trough rate (CTR). Click-through rate (CTR)/ amount of pledgers (P) = Customers paying (CPA).

Figure 26	Capturest	$CTR = \Sigma(I/C)$	$CPA = \Sigma(CTR/P)$
Impressions	22374	339/22374	15/339
Clicks	339	0,01515152	0,04424779
Pledgers	15	1,5 %	4,4 %
Pledgers per click	22,6		

Figure: 26- Calculations on estimated impressions

Implying the numbers in figure 25 means that 4.4 % of all who clicked pledged for the Capturest campaign. If the same rate is assumed in the control group campaign, it implies that to get one pledger for the control group 22,6 ( $\approx 23$ ) clicks was made. 23x average impression per click (66) gives a total amount of impressions for the control group of  $23 \times 66 = 1518$ .

#### 4.2.1.3. Conclusion of hypothesis 1

The descriptive statistical tools for either confirming or rejecting the first hypothesis was to use, the amount of unique watchers over the video, the amount of total impressions and the amounts of clicks. Since clicks and impressions was assumed the final results are presented as follows:

Figure 27	Control group	Treatment campaign
Amounts of videos played percentage	23	431
Amounts of videos played percentage	5 %	95 %
Clicks estimated	23	339
Clicks estimated percentage	6,5 %	92,5 %
Impressions estimated	1518	22374
Impressions estimated percentage	6,3 %	92,7 %
Mean value: coded values (0,1)	0.043478260869565	0.034802784222738
Variance: coded values (0,1)	0.041587901701323	0.033591550433083
Mean value: numerical	0.21739130434783	28.77030162413
Variance: numerical	1.0869565217391	233928.6502549

*Figure:27- Descriptive results*

The treatment campaign (Capturest) outnumber the control campaign on a substantial level, that means that the external public relational activities that were inserted led to higher awareness for the campaign. Hypothesis 1 can be confirmed. Further elaborations on the interpretation see chapter 5 discussions.

### 4.2.2 Hypothesis 2

For the second hypothesis the question was to see if external public relational activities had an positive impact on the amount of pledgers in total.  $\mu_0$  and  $\mu_1$  was set up as follows.

Hypothesis 0= $\mu_0$  = No difference between experiment groups.

Hypothesis 1= $\mu_1$ = Difference between experiment groups.

To find out whether the  $\mu_0$  hypothesis could be rejected a chi-square test was set up. Following results was concluded from the test.

Variable 1	Pledged	Not pledged	Totals
a) Control group	1	22	23
b) Treatment group	15	416	431
Total	16	438	454

Figure: 28- Contingency table

Figure 28 demonstrates the 2x2 contingency table used for calculating the chi-square. The variables state for a control group, and how many that pledged the campaign, how many that did not pledge the campaign and how many unique people who watched the video. Same accounts for b, the treatment group (Capturest). The bottom column shows the total amount of pledgers, the total amount of non-pledgers and the sum of all unique people watching the video. Those who pledged wee coded 1 and those who did not pledge was coded 0. The variance between the means of the treatment group (Capturest) and the control groups is controlled if it is statistically significant.

The mean and the standard deviation of the both campaign accounts for as follows:

Figure 29	Treatment group	Control group
Mean value	0,0348027	0,0434782
Standard deviation	0,1832799	0,2039311

Figure: 29- Mean value and standard deviation

Already here the variance for the treatment campaign is less than for the control group so it is already here significant that external public relations does not lead to a positive relation of people pledging. As little as one pledger changes that fact, and even if the control group campaign got zero pledgers the result would be significant but not by much. Although the test was made and following numbers resulted in this:

Figure 30	Values
Compared means	-0,0086755
P- value	0,858978
Degrees of freedom (DF)	1
Critical value	3,8415
Chi-square $\chi^2$	0,0483

*Figure:30- Results from the Chi-square test.*

This result is not significant at  $p < 0.10$ . If the P-value would be less than  $<0,10$ , the test could have concluded the probability in the sample. That means that it is actually an effect and it is not random. (Kröner & Wahlgren 2011). The compared means signifies a negative value which implies that people exposed to external PR are not more likely to pledge. The large p-value displayed in figure 12 implies that the  $\mu_0$  hypothesis cannot be rejected and since the large value occurs it is even an evidence that no relation between the variables occurs in this case. Since two categories are used the degrees of freedom is decided to be 1 ( $DF=c-1$ ). By having the degrees of freedom the chi-square table in Kröner and Wahlgren (2011) was used to decide the critical value that is needed for evaluating the chi-square result. In this case the critical value is larger than the chi-square value and the result is not statistically significant at  $p < 0.10$ . Since the results were not significant at  $p < 0.10$  there was no reason to test it on other levels.

#### **4.2.2.1 Conclusions of hypothesis 2**

Conclusions from the chi-square test implies that  $\mu_0$  cannot be rejected and that the second hypothesis is not statistically significant. By only looking at people who pledged and not account for which amount of money the pledge was, it shows that there is no positive relationship between

being exposed to external public relations and pledging the campaign. The simple conclusion that other factors than public relations could be used as an explanation for the people who pledged. Further elaborations for the second hypothesis can be read in chapter five.

### 4.2.3 Hypothesis 3

The purpose of the third hypothesis was to see whether people who was exposed to external public relations was more likely to pledge a higher sum than those who was not exposed to external public relations. The following hypothesis was stated:

Hypothesis 0=  $\mu_0$  = No difference between amount pledged exposed to PR and amount pledged not exposed to PR

Hypothesis 1=  $\mu_1$  = Difference between amount pledged exposed to PR and amount not exposed to PR.

Instead of doing a chi-square test a t-test accounted for numerical values.

Figure 31	Treatment group (Capturest)	Control group
Mean value	28,770301	0,2173913
Standard deviation	484,22378	1,0425720

*Figure: 31 - Mean value and standard deviation calculations*

Figure 31 shows the mean value and the standard deviation for both campaigns. By only looking at the means it shows that on average the mean for the treatment group is much bigger than for the control group. Although the standard deviation tend to be large due to extreme values. Before concluding if the  $\mu$ -hypothesis can be rejected a t-test was performed to decide the significance level. When the test was run, the following values displayed in figure 32 was the result.

Figure 32	Results
P-value	0,7777
Means (control group-Capturest)	28,55
T-value	0,2825
DF (degrees of freedom)	452
Standard error of difference	101,073
Significance level <0,05 interval of difference	-170.08 - 227.18
Variance control group	1.0869565217391
Variance treatment group	233928.6502549

*Figure: 32- Results from the t-test*

The test shows that the result is not statistically significant at  $p < 0,05$  level. Even though the mean for the treatment campaign (Capturest) was much higher it could not be proven to be statistically significant. The large p-value indicate that the  $\mu$ -hypothesis can not be rejected, it even implies a great insecurity about the  $\mu_1$  hypothesis. The reason for this state might depend on several observations in the statistical evidence. The low t-value indicates that the effect is very little and to interpret the effect of external public relations it is simply close to nothing, other variables might explain why people who actually pledged, on average, pledge more. Also a lot of extreme values make impact on the studied samples. Some values were too extreme and that makes the test not statistically significant. The standard error of difference result shows a large standard error which implies large extreme values.

#### **4.2.3.1 Conclusions of hypothesis 3**

It can be concluded that with the t-test the  $\mu_0$  hypothesis cannot be rejected and therefore the third hypothesis is not statistically significant. The mean by those who actually pledged for the treatment campaign was on average much higher than for the control group, but since the results are unstable with few observations on the control group and since large extreme values for the treatment campaign occurred, no statistical evidence can be drawn for the t-test.

## 5. Discussion

Relating to the findings the discussion will use the base of the theoretical framework to explain the findings and results from the campaigns. All of the hypotheses will be outlined and concluded and the discussion chapter bridges on to conclusions and further theoretical implications. The interpretation of the results suggest these following implications: first hypothesis can be confirmed, the second and the third one can not be confirmed. Relating to the research questions the first can be confirmed while the second and third is not proven to be evident. The overall problem that external public relation is a success factor for a tech startup doing donation based crowdfunding can not be confirmed. The discussion section is outlined first with the hypotheses linked to the research questions and the problem following by concluding remarks on the research question. Further, strengths and weaknesses, suggestions for further research and concluding remarks will be presented.

### 5.1 Research question 1 - Hypothesis 1

The first research question was answered over the first hypothesis, concluding remarks and elaborated discussion is presented below.

*When promotional activities outside the campaign-platform are included it leads to higher awareness for the campaign e.g. more people will see the campaign.*

It might be self-evident that campaigns that expose themselves with promotional actives get more impressions. Thus, this was not the intention of the hypothesis; the intention was rather to see the opposite as the base point. Promotion of the campaign should be considered a necessity and the standalone product can not expect to achieve spread and awareness only by relying upon the inside community. Even though Colombo et.al (2015) suggest that internal social capital is a good starting point, external promotion needs to be made. Relying solely on one or the other does not constitute increased probability to fund a campaign (Colombo et.al 2015) The results showed that 23 unique users watched the video for the first campaign and 431 watched it for the other campaign. Based on the public relational activities there is a substantial higher awareness for the Capturest campaign than for the other. Comparing the both campaigns showed that out of all the total impressions more

than 95 % came from the Capturest campaign. By that expressed, the awareness of Capturest could have been better and could have raised even higher awareness with a larger budget and potentially with other tools, though this was not the purpose. The intention from Capturest was, in line with the motivational factors that are described by Agrawal (2014) and Belleflamme et.al (2013), to achieve as much funding as possible.

Getting attention from the crowd in a web 2.0 based logic is necessary (Lee et.al 2008). Even though the spread and the awareness of the campaign were higher, it does not imply that the campaign will be successful itself. The implications from the first question should be that if inorganic growth is applied, it can be calculated how to make a successful crowdfunding campaign. The calculations that resulted in assumed impression, clicks and pledgers can be condensed and give the startup founder a tool on how many impressions and clicks is needed for funding a campaign. That on the basis that the variance between the mean of people pledged and unique videos watched are close to the same. Considering the spread of the campaign, one important aspect of the geographical spread should be outlined. Since a major part of the people were located in Sweden, it has implications that people from Sweden might behave differently than others, for example U.S. citizens. (Arrawal et.al 2014). One other interesting implication for the first hypothesis that should be in the readers attention is that public relations as such is not compared with other sources of marketing and spread of the campaign. That implies that there can be other sources than public relations that is better and give better metrics. This is something that could be investigated further.

Concluding the first hypothesis is considered confirmed. The confirmed hypothesis can also confirm the first research question. External public relations lead to higher awareness for a Kickstarter campaign and the entrepreneur cannot rely upon internal spread inside the platform.

## **5.2 Research question 2 - Hypothesis 2**

*When promotional activities are included in a campaign it leads to more contributions in terms of amount of people contribute to the campaign than if not. There is a positive relationship between promotional activities and amount of people contributing.*

It was surprising results that the variance between the mean of people pledged per unique person, which had watched the video, was greater for the campaign without the treatment PR. Although the result was not statistically significant it is surprising that PR did not lead to any multiple effects. Possible explanations on why there were not on average more people pledging the Capturest campaign over the control group campaign can partly be taken from the literature from crowdfunding and partly be taken from the web 2.0 logic.

Agrawal et.al (2014) outlines motivational factors for the pledger or for the funder of the project and simply this project did not fulfill any of those motivational aspects. If the user liked the idea you could get early access and you could get inside information within the process of making the app, one reward was even to build your own feature. Maybe these incentive was not enough and then it does not matter how much public relational activities a startup engages in. That is a clear limitation for the thesis, but it was known on beforehand that mobile applications are harder to fund than fiscal products, since it could be considered common knowledge that most of mobile applications should be free for the user ([theentrepreneur.com](http://theentrepreneur.com) 2013). If the campaign could fulfill financial incentives for the user then it might be easier to promote the campaign as well. An example of that was one message sent to the Capturest campaign asking whether he could invest in the project and get a share. Since financial incentives was not allowed at a kickstarter campaign he did not want to proceed with a pledge.

The second alternative explanation regards the logic of web 2.0, since funders wants to be among a community and feel important they pledge crowdfunding campaigns (Agrawal et.al 2014) However people within web 2.0 platforms participate, interact and collaborate within those. (Lee et.al 2008). In the case of this crowdfunding campaign the public relations has been targeted towards a narrow group, basically without the exact knowledge if they are present within these web 2.0 platforms. If they are not there is no reason to pledge in order to raise individual community awareness. Also if those who are present within the platforms is not interested in this kind of product the simple lack of interest makes them not pledge, unless other incentives can be fulfilled.

Considering these results, there can be explanations linked to the theoretical framework. To solely rely on that PR and a push for a crowdfunding campaign inside interest groups and communities

does not work. Instead closer interaction in the width, both internal and external social capital, might be of importance (Columbo et.al 2015).

To contextualize the result: the sample was rather small and only one person pledging the control group campaign made the impact that the findings resulted in not being statistically significant. Hence, the metrics and the amount of unique people watched the video decided by the amount of pledges for the campaign, was the same for the other. To draw any major conclusions of this result would from the authors' perspective require further investigation to build on to the result. It could be seen as an introduction study to the matters of public relation and promotion.

In summary the results for the second hypothesis was rejected and with the results from the second hypothesis concluded that the second research question could not be confirmed to be evident. Instead other factors than external public relations might have a positive influence.

### **5.3 Research question 3 - Hypothesis 3**

Third research question : *When people are exposed to campaign specific PR outside the platform it will lead to them pledging a higher amount on average than people who are not exposed. There is a positive relationship between people exposed to promotional activities and the amount of money they give away.*

By the fact that the comparison between the means was greater for the treatment campaign (Captures) than for the control group campaign gives a reason to assume that people that were exposed to external relational activities pledge on average more, (Captures (28,77) and for the control group (0,21)). Although when concluding the results it showed that this was not the case. Instead extreme values and a large standard error revealed that the third hypothesis was not significant. Leading on to the third research question it could not be considered evident due to that the third hypothesis not could be confirmed. Some alternative explanations can be made about this hypothesis. The most interesting part for a startup is to know who stood for the extreme values of pledges. First of all there was higher means and extreme values implying that more observations should have been made. If that was the case the results could be interpreted differently and probably with a stronger suggestion. Secondly another implication according to Agrawal et.al (2014) statement that "*success breeds success*" could be that the interest group for mobile apps targeted

towards parents in Sweden was too little. In order to reach the amount of early contributors that pledge initially it would require a larger audience and probably different targeting focus. This is just in line with the research on that the U.S is more successful than the rest of the world (Lambert & Schwienbacher 2010). Partially the explanation could be that the founders and the team did not have enough social capital nor a big enough social network to attract more pledgers. (Colombo et.al 2015) Further suggestion can imply which of the drivers of success that has the most influence, but the fact that there was only a small amount of pledgers actualizes this question as an alternative explanation to the results. Also in line with the previous suggestions in the section 5.2 those can also have an impact on this question.

PR does not constitute higher multiples in no more terms that the campaign gets higher awareness. The average amount of people pledging can be calculated on the average watching the video. One might argue that this can relate to that the idea itself is bad and therefore people are not pledging. However there has been example of campaigns that could be considered as jokes but got viral anyways. (<http://www.theverge.com/2014/10/1/6880201/potato-stock-kickstarter-potato-salad-zack-danger-brown>). So contributing to the community and not solely rely on promotion should be the key learnings. For managerial implications there are two, first the mentioned one solely rely on promotion of the campaign should not be considered, instead other factors might influence more (Argawal, et.al 2014, Columbo et.al 2015, Belleflamme et. al 2013, Lambert & Schwienbacher 2013). The second one if the metrics of the both campaigns are about the same and the variance is not substantially large, managers can calculate how much impressions costs, convert that to clicks, further convert it to amounts of unique people watching the video and finally calculate the amount of people pledging. The realist of that calculation can lead to how much money needs to be spent in order to achieve a fully funded campaign in an in-organic way.

#### **5.4 Concluding answers on research questions and academical problem**

The final conclusion and the answer on the research problem, the research questions and the hypotheses gives these remarks. The problem was the lack of drivers of success and the overall conclusion to be tested was *if the manage of external public relations is a success factor for a crowdfunding campaign*, The answer on that question is no, managing the external public relations

for a campaign does not lead to higher success. It leads to higher awareness for the campaign but exposing potential backers to external public relations does not make the to pledge more or pledge higher sums. Both of the campaigns that was live during the test did not succeed receiving enough funding.

- a. If external PR is managed outside the platform, does that lead to higher success rate?
- b. If external PR is managed outside the platform does that lead to higher amount of people pledging the campaign?
- c. If external PR is managed outside the platform does that lead to higher amount of money on average pledged by the funders?

Positive relationship between, external PR and people pledging and PR and amount of average of money each funder pledge.

For the stated research questions only the first one could be confirmed as evident. The implications for that is that a project owner can calculate how many impressions and clicks that are necessary when using public relations to get a campaign successfully The second question was whether there is a positive relationship with being exposed to external public relations and pledging money. The tested hypotheses did not confirm that so was the case. Third question was if those who were exposed to external public relations pledged on average more money. The evidence shows that they do, but due to extreme values and lack of observations for the control group makes the hypothesis not statistically significant.

## **5.5 Strengths and weaknesses of the thesis**

This section outlines the strengths and the weaknesses for this study. As with experimental design the high internal validity is a strength and so for this as well. There very few and very small differences in the campaigns. Therefore the test of the independent variable outside referrals e.g. PR are by confidence tested. Then to define which exact public relational aspect that gives more

pledgers is outside the scope of this thesis, but the confidence that PR was the tested variable is high.

Since this thesis is tested in a real-life setting with the objectives to receive as much funding as possible (in fact not only for the main campaign, but also for the control group, if the control group would have reached its funding goal the money would have been used to develop the same product). This makes this thesis ecologically valid. That means that the real naturalistic way of how people behave are tested, a laboratory test could have made the test only being perceived. But by this study the notion of that it is tested in a real-life setting makes it more credible (Bryman & Bell 2011). Also terms of reliability this study are strong, it is easy to follow the procedures and make the statistical test and re-do the test. (Bryman & Bell 2011).

For the weaknesses three factors will be outlined, the lack of a theoretical framework, lack of statistical tool and the result not statistically significant.

Firstly, since crowdfunding is a new phenomena an only nascent theory is exposed in the academical contribution, it is hard to give exact explanations on certain aspects. Hence, this study should be seen as an exploratory study continuing giving attention to the crowdfunding as a phenomena.

Secondly, the lack of statistical tools, Kickstarter is a platform with little comparable measurements. Only aggregated statistics were available. For the actual experiment the only comparable variables was over the amount of unique people watching the video. Which per se is a good indicator but it would have been even better if the platform could provide with tools that makes it possible to calculate impressions.

Thirdly, the results for the two later hypotheses was not statistically significant and therefore to make any widely interpretations of the results are not possible.

## **5.6 Suggestions for further research and implications for practice**

The growing attention of crowdfunding needs to be given more academic focus and in order to strengthen the theory, more studies needs to be made (Lerralde & Schwienbacher 2013, Mollick 2013, Rubinton 2011). Based on this study further research can be suggested by including more drivers of success and searching for more independent variables that can determine how to attract pledger. In the literature review knowledge gaps on whats generally drives success was hard to find.

Motivational aspects has been studied and was easily outlined, but general drives of success was hard to distinguish in the academical framework. (Argawal et.al 2014) So basically further investigations of what the PR is supposed to conducted and what determine good PR for a campaign and what could be considered as non-effective one.

The implications for practice that could be drawn from this study relates to two aspects. First of all in-organic growth could be calculated, which means that if a startup or a company wants to get a fully funded campaign they can calculate how many impressions that needs to be made in order to reach the level of contributions. Secondly, public relations led to more contributions, so to only launch a crowdfunding campaign and rely upon inside-platform spread is not recommended as a manager or a startup founder. External contributions should be considered as a necessity to get a campaign fully funded.

## **5.8. Conclusion and summary**

In conclusion for this work the fact that including external referrals and outside PR does not lead to higher amount of pledges in average. Neither does it lead to that those who pledge, on average give away a higher sum. These are the major conclusion of this thesis. The managerial implications for an entrepreneur is to not solely rely upon PR to fund a campaign, but if in-organic success wants to be achieved it can be calculated what each pledger costs.



## Referencelist

**Agrawal, A.; Catalini, C.; Goldfarb, A. (2010):** Entrepreneurial Finance and the Flat-World Hypothesis. Evidence from Crowd-Funding Entrepreneurs in the Arts. working papers. Available online at [http://www.netinst.org/Agrawal\\_Catalini\\_Goldfarb\\_10-08.pdf](http://www.netinst.org/Agrawal_Catalini_Goldfarb_10-08.pdf).

**Agrawal, A.; Catalini, C.; Goldfarb, A. (2011):** Friends, Family, and the Flat World. The Geography of Crowdfunding. working paper. National Bureau of Economic Research. Available online at <http://ssrn.com/abstract=1692661>.

**Agrawal, A.; Catalini, C.; Goldfarb, A. (2014):** Some Simple Economics of Crowdfunding. Chicago journals. University of Chicago press, Chicago

**Alonso O, Lease M. Crowdsourcing 101: (2011)** putting the WSDM of crowds to work for you. In: Proceedings of the fourth ACM international conference on Web search and data mining, WSDM '11. New York: ACM pp. 1–2.

**Arolas, E, Gonzalez Ladron-de-Guevara (2012):** Towards an integrated crowdsourcing definition Journal of information science, Valencia

**Belleflamme, P.; Lambert, T.; Schwienbacher, A. (2010):** Crowdfunding. An Industrial Organization Perspective. Available online at [http://economix.fr/pdf/workshops/2010\\_dbm/Belleflamme\\_al.pdf](http://economix.fr/pdf/workshops/2010_dbm/Belleflamme_al.pdf).

**Belleflamme, P.; Lambert, T.; Schwienbacher, A. (2012):** Crowdfunding. Tapping the wright crowd. working paper. Available online at <http://ssrn.com/abstract=1578175>.

**Belleflamme, P.; Lambert, T.; Schwienbacher, A. (2013):** Individual Crowd-funding Practices. working paper. Available online at <http://ssrn.com/abstract=2151179>.

**Booth, N. (2008)** 'Business & Technology section', Computer Weekly, 4 March

**Boutin, P. (2006)** 'The New Internet "boom" doesn't live up to its name', Slate, [Online] Available at: <http://www.slate.com/id/2138951/>

- Bruton, G, Khavul, S, Siegel, D, Wright, M (2015)** - New Financial Alternatives in Seeding Entrepreneurship: Microfinance, Crowdfunding, and Peer-to-Peer Innovation. Entrepreneurship, theory and practice 2015, Baylor University
- Bryman, A.; Bell, E. (2011):** Business research methods. 3rd ed. Cambridge, New York, NY: Oxford University Press.
- Campbell, C, Pitt F.L, Parent, M, Berthon, R,P (2013)** - Understanding consumer conversions around ads in a web 2.0 world. Journal of advertising. Monash University Melbourne.
- Colombo, G,M, Franzoni,C, Rossi-Lamastra, C (2015)** - Internal social capital and attraction of early contributions in crowdfunding. Entrepreneurship in theory and practice Baylor University.
- De Buysere, K.; Gajda, O.; Kleverlaan, R.; Marom, D. (2012):** A Framework for European Crowdfunding. Available online at [www.crowdfundingframework.eu](http://www.crowdfundingframework.eu).
- Danmayr, F (2013)** - Archetypes of crowdfunding, a multidimensional comparison - Springer Fachmedien Wiesbaden 2014, Steyr, Austria
- Edmondson, A. C.; McManus, S. E. (2007):** Methodological fit in management field research. In Academy of Management Review 32 (4), pp. 1155–1179. DOI 10.5465/AMR.2007.26586086.
- Freund, R. (2010):** How to Overcome the Barriers Between Economy and Sociology With Open Innovation, Open Evaluation and Crowdfund- ing? In International Journal of Industrial Engineering and Management 1 (3), pp. 105–109. Available online at [www.ftn.uns.ac.rs/ijiem](http://www.ftn.uns.ac.rs/ijiem)
- Gerber, E.; Hui, J. S.; Kuo, P. Y. (2012a):** Crowdfunding. Why People are Motivated to Post and Fund Projects on Crowdfunding Platforms. Illinois: Creative Action Lab, Northwestern University. Available online at [http://distworkshop.files.wordpress.com/2012/01/dist2012\\_submission\\_11.pdf](http://distworkshop.files.wordpress.com/2012/01/dist2012_submission_11.pdf).
- Gerber, E.; Kuo, P. Y. (2012):** Design principles. crowdfunding as a creativity support tool. ACM. In Proceeding CHI '12 Extended Abstracts on Human Factors in Computing Systems, pp. 1601–1606.

**Goodchild (2007)**- Citizens as Voluntary Sensors: Spatial Data Infrastructure in the World of Web 2.0. University of California, Santa Barbara, USA. International Journal of Spatial Data Infrastructures Research, 2007, Vol. 2, 24-32.

**Gummesson (2000)** Qualitative methods on management research 2ed, London Sage

**Hemer, J. (2011):** A Snapshot on Crowdfunding. working paper firms and region, No R2/2011. Available online at <http://hdl.handle.net/10419/52302>.

**Hildebrand, T., M. Puri, and J. Rocholl. 2011.** “Skin in the Game: Incentives in Crowdfunding.”, Working Paper.

**Kleemann, F.; Voß, G. G.; Rieder, K. (2008):** Un(der)paid Innovators. The Commercial Utilization of Consumer Work through Crowdsourcing. In Science, Technology & Innovation Studies 4 (1), pp. 5–26.

**Kotler, P, Armstrong,G, Wong, V, Saunders, J (2011)** Principles of marketing 7th edition. Pearson Education LTD. Essex, England

**Kröner, S, Wahlgren, L (2005)** - Statistiska metoder  
Studentlitteratur, Lund

**Kuppuswamy, V.; Bayus, B. L. (2013):** Crowdfunding Creative Ideas. The Dynamics of Project Backers in Kickstarter. Available online at <http://ssrn.com/abstract=2234765>.

**Lambert, T.; Schwienbacher, A. (2010):** An Empirical Analysis of Crowdfunding. working paper. Available online at <http://ssrn.com/abstract=1578175>.

**Larralde, B.; Schwienbacher, A. (2012):** Crowdfunding of small entrepreneurial ventures. In The Oxford handbook of entrepreneurial finance ed. Cumming, D, 369. New York: Oxford University Press.

**Lee, S-H, DwWester, D, Park S-R (2008)** Web 2.0 and opportunities fir small businesses. Service business 11/2008, Springer-Verlag, Department of management, University of Nebraska Lincoln.

- Lehner, O. M. (2013):** Crowdfunding Social Ventures. A Model and Research Agenda. In Routledge Venture Capital Journal (forthcoming) 15 (3). Available online at <http://ssrn.com/abstract=2102525>.
- Massolution (2013):** 2013 CF. The Crowdfunding Industry Report. Massolution and Crowdsourcing.org.
- Mollick, E. (2013a):** The Dynamics of Crowdfunding. Determinants of Success and Failure. working paper. Available online at <http://ssrn.com/abstract=2088298>.
- Mollick, E. (2013):** Swept Away by the Crowd? Crowdfunding, Venture Capital, and the Selection of Entrepreneurs. Available online at <http://ssrn.com/abstract=2239204>.
- Oliveira F, Ramos I, Santos L.(2010)** Definition of a crowdsourcing innovation service for the European SMEs. In: Daniel F. et al. (eds) Current trends in web engineering. Berlin/Heidelberg: Springer, pp. 412–416
- Ordanini, A.; Miceli, L.; Pizzetti, M.; Parasuraman, A. (2011):** Crowd-funding. transforming customers into investors through innovative service plat- forms. In Journal of Service Management 22 (4), pp. 443–470. DOI 10.1108/09564231111155079.
- O'Reilly, T. (2007):** What is Web 2.0. Design Patterns and Business Models for the Next Generation of Software. In Communications & Strategies (1), pp. 17–37. Available online at <http://ssrn.com/abstract=1008839>.
- Ramachandran, V, Ward, C (2013)** Crowdfunding the next hit: Micro-funding online experience goods. University of Utah, Salt Lake city.
- Reis, A, Reis, L (2004)** - The Fall of Advertising and the Rise of PR  
HarperCollins Publishers Inc. New York.
- Schenk, E, Guittard C. (2011)** Crowdsourcing: what can be outsourced to the crowd, and why? Technical Report. Available at: <http://halshs.archives-ouvertes.fr/halshs-00439256/>

**Shang, S.C.S, Li,Y,E, Wu, Y-L, Hou,C,L,O (2010)** Understanding Web 2.0 service models: A knowledge-creating perspective. Journal of information and management. Tamkong University, Taiwan.

**Song, W (2010)** Theorizing Web 2.0, Information communication and society, Louisiana State university, Louisiana U.S

**Wirtz, W, B, Schilke, O, Ullrich, S (2010)** Strategic Development of Business Models Implications of the Web 2.0 for Creating Value on the Internet, Long range planning 43, <http://www.elsevier.com/locate/lrp>

**Whetten, A,D (1989)** What Constitutes a Theoretical Contribution?  
The academy of management review vol. 14. no.4 pp 490-495

**Whitla P (2009).** Crowdsourcing and its application in marketing. Contemporary Management Research; 5(1): 15–28

#### **Internet sources.**

[capturest.com](http://capturest.com): accessed 2015-04-19

[google.com/trends](http://google.com/trends): accessed 2015-05-04

<http://http://gofundme.com>. Accessed 2015-05-01

[kickstarter.com](http://kickstarter.com): Accessed 2015- 04.19

[indiegogo.com](http://indiegogo.com) : Accessed 2015-04-19

O'Reilly,T

<http://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html?page=3>: Accessed 2015-04-20 -

O'Reilly Media inc

Howe, J, Robinson, M (2006) The rise of crowdsourcing

<http://archive.wired.com/wired/archive/14.06/crowds.html>

Accessed: 2015-05-01- Wired magazine.

<http://www.entrepreneur.com/article/229423>

Accessed: 2015-05-15

Public sources

<http://www.notisum.se/rnp/sls/lag/20050551.htm>

Aktiebolagslagen, Limited company law of Sweden - Private shareholders

Accessed by [notisum.se](http://www.notisum.se) 2015-05-0

## Appendix:

### Appendix 1

Information in Swedish, translates to the amount of people reached

How many likes there where and the opportunity to promote the post.

**Capturest**  
Publicerat av Simon Arvidsson [?] · den 15 april · 

Capturest article about the ptich-contest.  
Don't forget to pledge us at Kickstarter just follow the link at [bit.ly/capturest](http://bit.ly/capturest)

<http://es.handels.gu.se/.../masterstudenter-i-entreprenorskap...>

**GÖTEBORGS  
UNIVERSITET**

### Masterstudenter i entreprenörskap vinnare på Junior World Entrepreneurship Forum 2015 -...

En av våra mastersstudenter på programmet  
Knowledge-based Entrepreneurship var vinnare på...

ES.HANDELS.GU.SE | AV KAJSA FOLMEUS STRAND...

105 personer har nåtts Marknadsför inlägg

4 gilla-markeringar 

10

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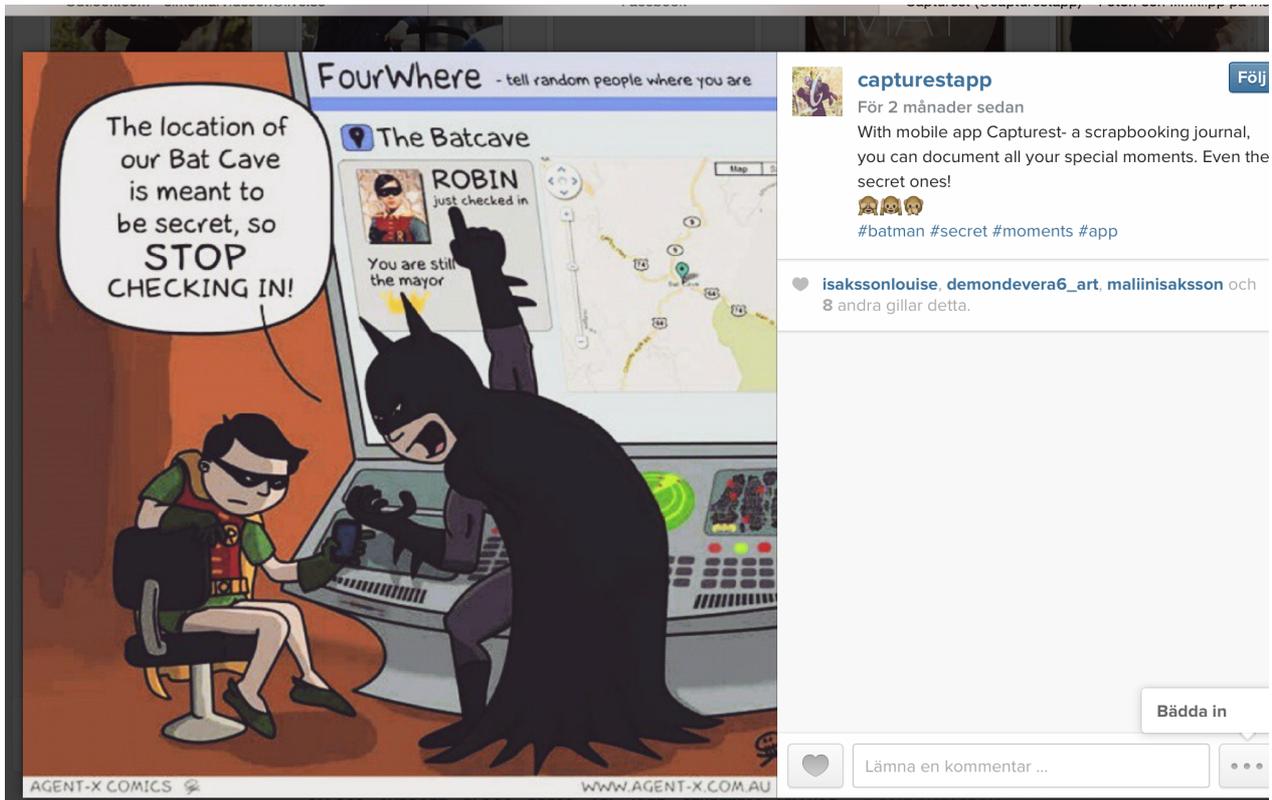
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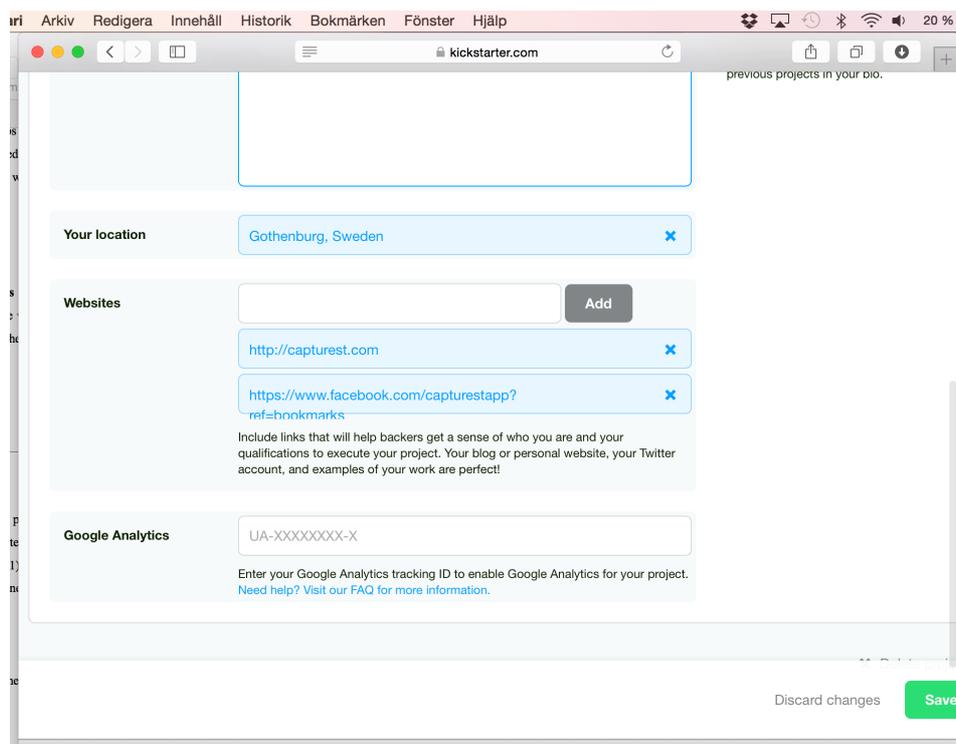
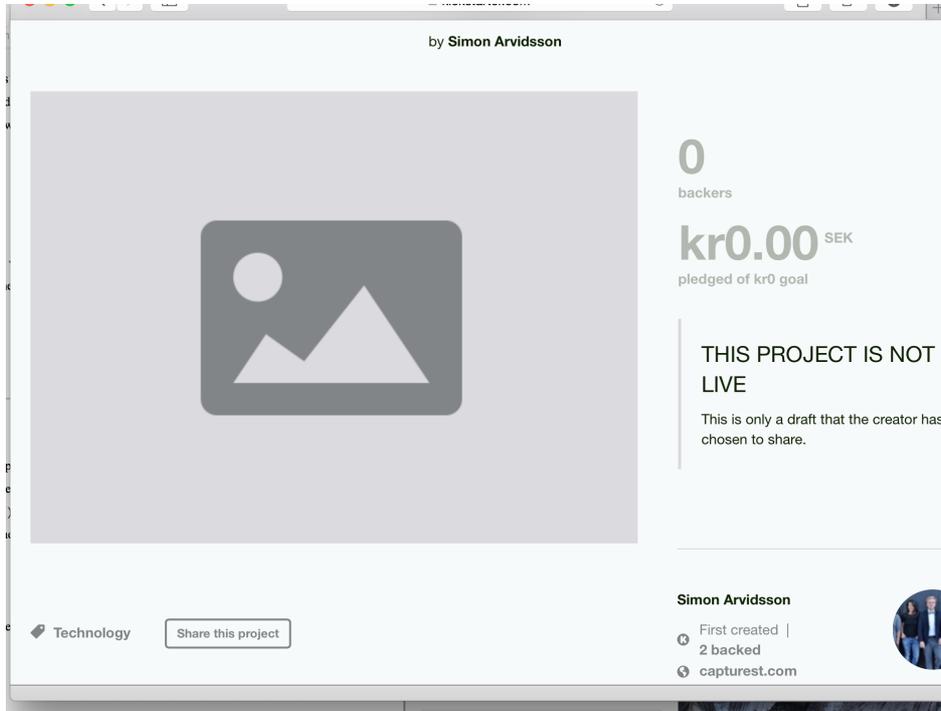
## Appendix 2

Instagram promotion, public relational activities together with parents, more can be read at <https://instagram.com/capturestapp/>



## Appendix 3

Procedures on how the Kickstarter platform works in when setting up an launching a campaign, all the steps included below.



kickstarter.com

previous projects in your bio.

Your location: Gothenburg, Sweden

Websites:
 

- http://capturest.com
- https://www.facebook.com/capturestapp?ref=bookmarks

Include links that will help backers get a sense of who you are and your qualifications to execute your project. Your blog or personal website, your Twitter account, and examples of your work are perfect!

Google Analytics: UA-XXXXXXX-X

Enter your Google Analytics tracking ID to enable Google Analytics for your project. [Need help?](#) [Visit our FAQ for more information.](#)

Discard changes Save

kickstarter.com

Profile photo:  Choose an image from your computer (JPEG, PNG, GIF, or BMP - 50MB file limit)

Name: Simon Arvidsson  
Now that you've launched a project, your name cannot be changed.

Facebook Connect:  Connected to Facebook disconnect

Biography:

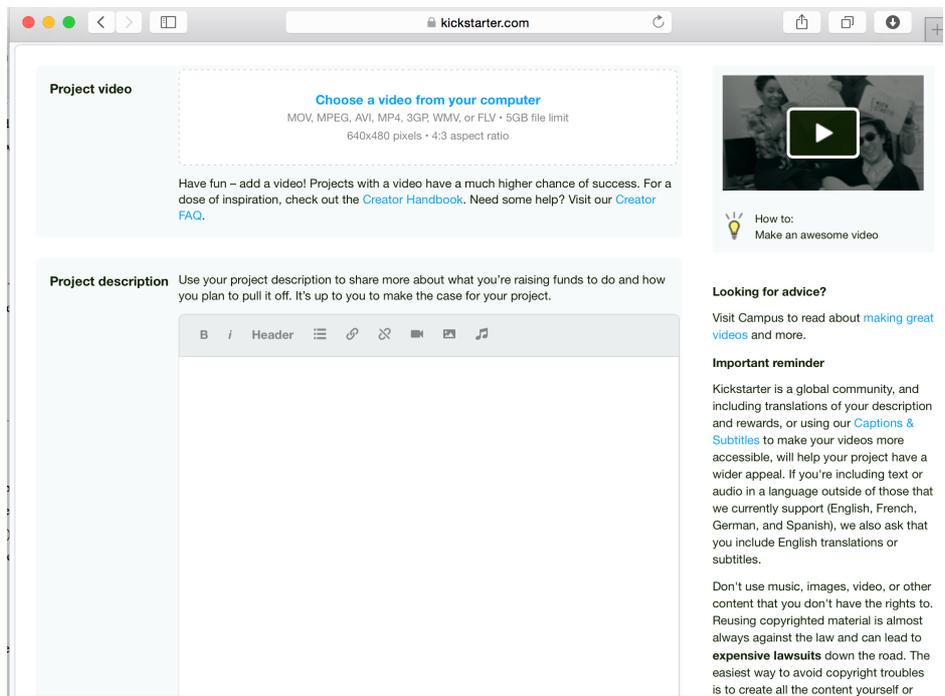
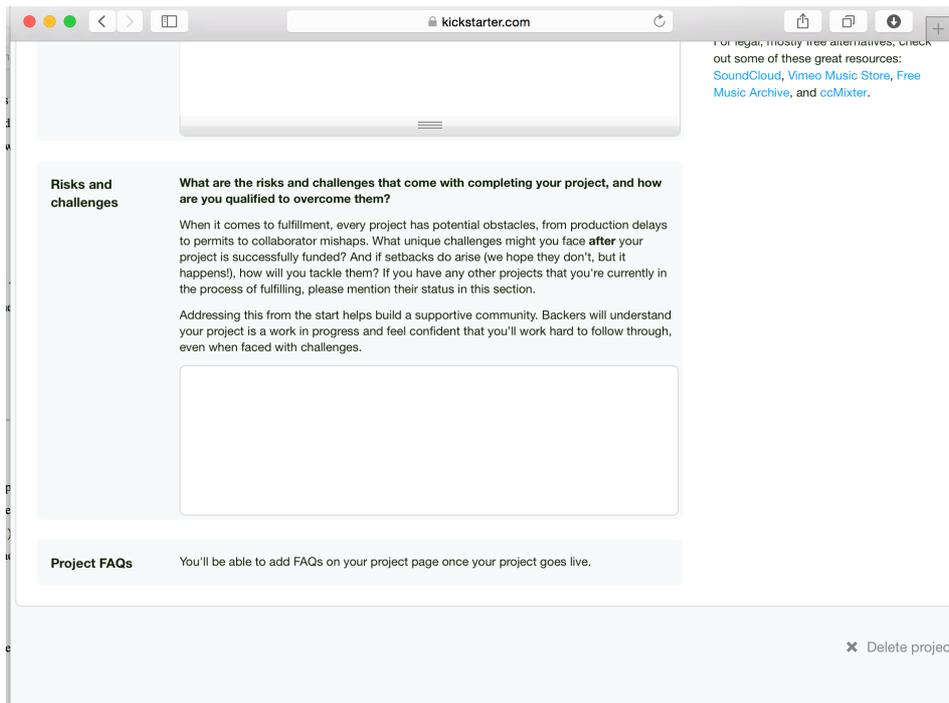
Your location: Gothenburg, Sweden

Websites:  Add

Important notes on accountability: Part of every creator's job is earning their backers' trust, especially backers who don't personally know them. It's up to you to make the case that you can successfully bring your project to life. Present your qualifications and share links that help reinforce them.

Returning creators: Launching another project? Awesome! For the sake of transparency, just be sure all of them are under the same account. In special circumstances where this won't work (this project's a solo album, the last one was with your mariachi band) just be sure to link to any previous projects in your bio.

Discard changes Save



## How will you thank the people who support you?

Offer an experience, a copy of what you are making, or a thank you in the credits. Get creative

Reward #1	Pledge amount	kr0 SEK	<a href="#">Delete</a>
Description			
Estimated delivery	Select month	Select year	
Shipping details	Select an option		
<span>0 BACKERS</span> <input type="checkbox"/> Limit quantity			

[+ Add a new reward](#) Copy existing reward [Copy](#)

**How to:**  
[Create great rewards](#)

**What to offer**  
Copies of what you're making, unique experiences, and limited editions work great.

**How to price**

- Price fairly, and offer a good value. What would you consider a fair exchange?
- Something fun for kr50 SEK or less is always a good idea.
- Funds that backers pledge to account for shipping costs will count towards your project's funding goal. Keep this in mind when setting your goal.
- Use the shipping tool to add delivery costs for any country you like (including your own). The price will be added to backer's pledges as they check out.

Project location

**Funding duration**

Number of days  1-60 days, we recommend 30 or less

End on date & time

We recommend setting a funding duration of 30 days or less. Shorter durations tend to have higher success rates. Once your project has launched, it won't be possible to change your funding duration. For more tips, check out the [Creator Handbook](#).

**Funding goal**

Your funding goal should be the minimum amount needed to complete the project and fulfill (and ship!) all rewards. Because funding is all-or-nothing, you can always raise more than your goal but never less. Once your project has launched, it will not be possible to change your funding goal.

If your project is successfully funded, the following fees will be collected from your funding total: Kickstarter's 5% fee, and payment processing fees (between 3% and 5%). If funding isn't successful, there are no fees.

[View fees breakdown](#)

[Delete project](#)

Discard changes [Save](#)

kickstarter.com

**Project title**  60/60

Your project title and blurb should be simple, specific, and memorable. Our search tools run through these sections of your project, so be sure to incorporate any key words here!

These words will help people find your project, so choose them wisely! Your name will be searchable too.

**Short blurb**  135/135

If you had to describe what you're creating in one tweet, how would you do it?

**Category** Technology

**Subcategory (optional)**

**Project location**

**Funding duration**

Number of days 30 1-60 days, we recommend 30 or less

End on date & time

Simon Arvidsson

0% funded kr0.00 pledged

We recommend setting a funding duration of 30 days or less. Shorter durations tend to have higher success rates. Once your project has launched, it won't be possible to change your funding duration. For more tips, check out the [Creator Handbook](#).

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kickstarter.com

**KICKSTARTER** Our Rules

Basics Rewards Story **About you** Account Preview Continue

**Start building your project!**  
Add an image, a goal, and other important details.

**Project image**

**Choose an image from your computer**

This is the main image associated with your project. Make it count!  
JPEG, PNG, GIF, or BMP • 50MB file limit  
At least 1024x768 pixels • 4:3 aspect ratio

Visit our guide for some tips on [creating great project images](#).

**How to:** [Make an awesome project](#)

**Need advice?**  
Visit Campus to read discussions about [preparing for a project](#) and more.

**Project title**  60/60

Your project title and blurb should be simple, specific, and memorable. Our search tools run through these sections of your project, so be sure to incorporate any key words here!

Discard changes **Save**