Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics

Diploma Thesis

Comparison of different crowdfunding campaigns according to selected criteria

Bc. Zuzana Valentová

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

Zuzana Valentová

Economics and Management

Thesis title

Comparison of different crowdfunding campaigns according to selected criteria

---

Objectives of thesis

Aim of this diploma thesis is to compare different crowdfunding campaigns according to selected criteria. The basic explanation and description of start-up phenomena together with different ways of financing with the main focus on crowdfunding are included in the theoretical part of the thesis. The practical part of the diploma thesis examines the selected criteria and their influence on crowdfunding campaigns.

Methodology

The main sources of information are literature review and information from website Kickstarter.com. The literature review is based on the study of secondary data such as scientific resources, books and internet articles from relevant websites dealing with the area of crowdfunding and other forms of financing of start-up companies. These information are selected and examined according to their relevance to the aim of the diploma thesis. The main techniques used for the practical part of the diploma thesis are quantitative approach and regression analysis.

The proposed extent of the thesis

60 pages

Keywords

Kickstarter, start-up, financing, crowdfunding, campaign

Recommended information sources

Cremades, Alejandro. The Art of Startup Fundraising: Pitching Investors, Negotiating the Deal, and Everything Else Entrepreneurs Need to Know. Wiley, 2016. ISBN 978-11-191-9183-4

Hogue, Joseph. Step by Step Crowdfunding: Everything You Need to Raise Money From the Crowd. Efficient Alpha, 2015. ISBN 978-09-962-3211-1

Monas, Steve & Hooker Richard. Shoestring Venture: The Startup Bible. iUniverse, 2008. ISBN 978-05-955-0651-4

Steinberg, Don. The Kickstarter Handbook: Real-Life Success Stories of Artists, Inventors, and Entrepreneurs. Quirk Books, 2012. ISBN 978-15-947-4608-6

Steinberg, Scott, DeMaria Rusel & Kimmich Jon. The Crowdfunding Bible: How to raise money for any startup, video game or project. Lulu.com, 2008. ISBN 978-11-057-2628-6

Expected date of thesis defence

2017/18 SS – FEM

The Diploma Thesis Supervisor

Ing. Petr Procházka, Ph.D., MSc

Supervising department

Department of Economics

Electronic approval: 22. 11. 2016

prof. Ing. Miroslav Svatoš, CSc.

Head of department

Electronic approval: 23. 11. 2016

Ing. Martin Pelikán, Ph.D.

Dean

Prague on 10. 03. 2018

Declaration

I declare that I have worked on my diploma thesis titled "Comparison of different crowdfunding campaigns according to selected criteria" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on 20th March 2018 _____

Acknowledgement

I would like to express my sincere gratitude to my supervisor Ing. Petr Procházka, MSc, Ph.D. for his help, recommendations and support during the processing of the diploma thesis. Furthermore, I would like to thank my family for their support and patience during my whole study.

Srovnání vybraných crowdfundingových kampaní v závislosti na vybraných kritériích

Souhrn

Diplomová práce je zaměřena na výzkum v oblasti crowdfundingu a porovnání vybraných kampaní. Cílem je osvětlit příčiny úspěchu či naopak neúspěchu vybraných kampaní se snahou o vytvoření doporučení, jež by mohla zvýšit šance kampaně na úspěch.

První část práce se zabývá obecnou definicí start-upu a možnosti financování. Dále se práce zabývá pojmem crowdfunding a motivací autorů a přispěvatelů. Následuje stručný popis crowdfundingových modelů a výčet pozitiv a negativ vztahující se ke crowdfundingu. Poslední kapitola teoretické části je zaměřená na platformy, zejména na Kickstarter.

Druhá část práce je zaměřena na analýzu crowdfundingových kampaní z nejznámější internetové platformy Kickstarter. Nejprve bude proveden sběr dat o crowdfundingových kampaních, ten bude následně kvantifikován. Poté se provede korelační analýza a bude sestaven ekonometrický model. Ekonometrické modelování bude využito k vysledování a kvantifikaci klíčových faktorů pro úspěch kampaně. Po ověření závěrečného modelu budou prezentovány výsledky diplomové práce.

Klíčová slova: Kickstarter, start-up, financování, crowdfunding, kampaň

Comparison of different crowdfunding campaigns according to selected criteria

Summary

The thesis is focused on research in the area of crowdfunding and on comparison of selected campaigns. The aim is to identify causes of a campaign's success or failure with the effort to create guidance and recommendations, which could increase the chance of new campaigns to succeed.

The first part presents the general definitions of start-up and its possible options of funding. Further, the thesis deals with crowdfunding and motivation, to participate in crowdfunding project either as author or backer. The following chapter contains a brief description of crowdfunding models and certain advantages as well as drawbacks are pointed out. Last chapter of theoretical part is focused on crowdfunding platforms with main focus on Kickstarter.

The second part is focused on the analysis of crowdfunding campaigns from the most well-known crowdfunding platform Kickstarter. Data collection on crowdfunding campaigns will be done, then dataset will be quantified. Thereafter the correlation analysis and econometric modelling will be done. Econometric modelling will be used to trace and quantify economic phenomenon or relationships between them. After the final model is verified, the results of the diploma thesis are presented.

Keywords: Kickstarter, start-up, financing, crowdfunding, campaign

Table of Content

List of Figures

List of Tables

1 Introduction

The world of business changes and evolves quickly. What was used yesterday is not modern anymore not only in the world of business, but in the world itself. As modern technologies have become a daily part of our lives, they have an effect on every possible area that people are active in. The world of business is not an exception, it is just the opposite.

In capitalist countries people can start their own businesses in any possible area. But in the past years, people usually had to possess quite a capital to start their own business. Otherwise they had to ask the bank for a business loan, which was not always easy to get. As there were more and more people who wanted to start their own business on one side, and more and more people who wanted to support an interesting project on the other side, a solution has been found in the form of a start-up.

A start-up company enables people without a capital but with an interesting idea to start a company. It connects people with ideas with people with capital. In has been several years now, when startups are used more and more. Today it is several new startups that appear on many internet websites every day. In such an amount of projects only some of them are successful. The term successful means that during the campaign, enough money is raised to realize the original intent.

It is not easy to predict which campaign will succeed and which will fail. There are many options how to increase the chance of a campaign to succeed, but there is always also many unpredictable and uncontrollable aspects. The thesis will be focused on the controllable ones in order to determine, which steps of a start-up campaign are the key ones, that help campaigns succeed, and vice versa, which steps are the most common causes of campaigns' failure.

2 Objectives and Methodology

This chapter will present the main aim of the thesis, objectives that will help to achieve it and the methodology of the research with several research limitations.

2.1 Objectives of the thesis

The main aim of the thesis is to explore the area of crowdfunding, in specific to compare selected startups and to identify, which factors and attributes are essential for the success of a start-up campaign, and to verify their influence by process of econometric modelling.

2.2 Methodology

In the theoretical part a literary research on the selected subject will be done to determine, which attributes are essential to include in the practical part. For this purpose professional and scientific literature will be used.

The practical part will be focused on the analysis of startup campaigns. First the data collection will be done from a chosen source and all of the data will be quantified. After that the correlation analysis and econometric modelling will take place. Econometric modelling is a complex method, which is used to trace and quantify economic phenomenon or relationships between them. It is a combination of economical, mathematical and statistical methods. Altogether it can be used to analyse any phenomenon, to better understand it, to improve efficiency of some process or to predict the development of an economic indicator. The process includes the identification of variables, econometric model compilation and testing various forms of the model. The most accurate model will be selected and then submitted to economic, statistic and econometric verification. Once the resulting model is verified, conclusions can be evaluated and recommendations for new startup campaigns will be created.

3   Theoretical Part

This chapter provides an overview of theoretical approaches concerning start-up, ways of financing start-up with main focus on crowdfunding based on scientific literature, articles and electronic resources. The first section describes the terminology connected with this topic and brief description of other options of financing start-up companies and explains motivation of project authors and backers to contribute in crowdfunding.

Secondly, it describes types of crowdfunding initiatives and overall pros and cons. Last part is dedicated to crowdfunding platforms with main focus on Kickstarter.

3.1   Development of start-up definition

The term start-up is not clearly defined and has no universally accepted definition. To simplify the start-up definition it can be summarized as a new project with a good potential for rapid growth. Start-up can be controlled by either a legal entity or physical person.

Definitions vary widely, some slightly contradict each other, and some only complement the existing definitions of certain details and specifics. For a description of a start-up itself, as well as its wide scope, there can be used the following definitions. Relatively broad definition without limitation in the size or specific orientation offers Eric Ries. He defines a start-up as a "human institution designed for the creation of new products and services in conditions of extreme uncertainty." (Ries, 2011)

Platform Czechinvest describes start-up as a very new established company, which has not yet begun commercial sales of its products or services and have no profit. Financing is connected with commercialization of the product developed in the previous stage. (Czechinvest, 2016)

In a number of definitions appears connection of start-up and new innovative idea. Representative of this approach is the author of the book "Start-up Nation" Saul Singer. Singer understands concept of start-up as a small company that develops new idea and new innovation. Generally, it refers to new technologies, but it may not always be. Start-ups can

be based on a new business model or certain kind of innovation. Start-ups must have some kind of big ideas. Start-ups are based on innovation, with great potential to get ahead. The term start-up is still developing. It was gaining on popularity especially at the end of the twentieth century, when they begin to emerge together with the internet fever between 1997 and 2001. Internet fever is primarily associated with emerging of internet companies around Silicon Valley that have managed to get a huge investment despite of imperfect business model, which in many cases led to heavy losses in number of companies with rupture of so-called Internet bubble. (Lowenstein, 2005)

For the purpose of this diploma thesis the concept of start-up will be regarded as a specific project, supported by at least clearly defined idea e.g. through a business plan or in the best case by already finished prototype. Project, to be start-up, has to fulfil condition of bringing some innovation or new original solution which differs from the classical business plan based on an array of other alternatives.

3.2 Crowdfunding versus other options

Financing seems to be essential issue when establishing a start-up. Implementation of even the simplest ideas always carries considerable financial costs in the very beginning. To reduce this financial burden there can be used some common options as in the classic business, but also completely non-standard ways that are rather rare in that classic business. Specific options tied to the high risk associated with the specific needs of start-ups can be divided into several options usually according to the life-cycle stage in which the start-up currently is.

Rate of return on investment is directly proportionate to the risk, which is the highest in the early stages of existence. In these phases there are usually smaller investments, screening the potential of the project, its profitability or potential traffic and number of users, which often becomes a key criterion value of start-ups, regardless of their current profits. For this reason, it is important to understand for entrepreneur what opportunities and where he or she can find. Nowadays, there are plenty of ways of financing, it is important to keep in mind, that every of these possible ways is useful at different stage of a life cycle of a company. To make right decision, in choosing financial strategy, is necessary to know

company´s characteristics and of course it´s industries characteristics. The most common ways of financing of start-up are described below. (Watch, 2016)

3.2.1 Bussiness Angels

Business angels invest separately as private investors, who in addition to financial support usually contribute by equally important know-how. For this reason they are often referred to as smart money. Business angels focus on investing primarily into small and medium-sized enterprises (SME) as well as into start-ups in the first three stages of life. This is essentially a phase (pre) seed, the early stage, and start-up or expansion phase. In return business angel gains prearranged share, shares or otherwise specified funds or benefit from the attained achievements. This is a short-term investment with expected valorisation in a defined timeframe. Business angels are individuals familiar with this environment, often comes directly from successful start-ups or from the same industry. (Czechinvest, 2016)

Business Angels can recognize a good idea and evaluate it, thanks to their know-how and strategic contacts. It is a logical choice and one of the most practical options when starting a business, where a lot of added value can be formed by investor, which is the case of business angels often experienced managers, successful entrepreneurs and professionals from different disciplines. Investors often become a part of the team as mentors. It may also participate in the creation of the product, especially economic and strategic management. Well-known business angels indirectly increase the value thanks to the investment itself and showing interest for relevant start-up by his or her investment, thus attracting the attention of other new investors, the media and large companies. Among the major companies associating business angel's investors belongs for example AngelList, which allows investors to find start-ups. Also help Start-ups to find investors and new employees. Among other similar platforms belongs - CircleUp, SecondMarket, EarlyShares. (Businessangels, 2017)

Currently there is no alternative of similar format in the Czech Republic. Angel investments are not so widespread and opportunities for start-ups, despite the growing number of angel investors, are relatively small compared to some other countries in Europe

and the USA. Business angels can be also reached through networks such as LinkedIn, Plaxo, Xing, etc.

Although investors may be motivated by higher goals, like to participate in an interesting project and help the team with an original idea, the main motivation for all investors is usually to achieve high return on investment. The profit on investments in the successful project normally takes place in the form of "exit" from the company within the planned timeframe. Exit the company has a variety of options, like selling his or her share to financially stronger investor, management buyout (MBO), management buy-in (MBI) or initial public offering (IPO). The risk of these investments is very high. For that reason, business angels usually have investments in several companies, because one successful investments can cover several unsuccessful investments. (Eban, 2014)

3.2.2   Venture Capital and Private Equity

Venture capital or Private equity, similarly like the term start-up, does not have clear definition. Slight differences can be found in the understanding of this concept in terms of geography, namely the European and American perspective. Basically, private equity together with venture funds are investments in publicly unmarketable company through a capital increase.

Private equity usually refers to a mature company with a clear history in the later stages of enterprise with a majority share, from which we can infer a proactive approach to financial and strategic management of invested companies. It is a medium to long term investment exchanged for capital share. Funding structure is usually formed from equity and debt. Private equity refers to larger investments than venture capital. Investment is starting around $100 million up to ten of billion. Besides financial resources, investor brings an active approach to managing the company in the form of strategic, business and financial consulting. Such investment should support progress of the company to the next stage of its development and contribute to the growth of its market value.

In case of successful investment is takes usually over three to seven years to realize a profit through the purchase of corporate management companies (MBO) or external management

(MBI). Investment returns in a form of increased market share. Exit means in this context a planned exit from the company, which is usually realize by selling shares to another investor or to the original owner of the company. (HBR, 1998)

Venture capital is mainly focused on smaller and younger companies than private equity. Funding structure is made only from equity and the size of investment also differs, usually from $50,000 to $5 million.

The best-known investment private equity companies operating in the Czech Republic are following: Advent international, RSJ private equity, Amundi Private Equity Funds, Argus Capital, ARX Equity Partners, Enterprise Investors, Genesis Capital, Gimv, Invest Equity, Mid Europa Partners, Riverside Europe Partners.

Following companies participate in venture capital investments: 3TS Capital Partners, Credo Ventures, Y Soft Ventures, Freedo, Venture Investors Corporate Finance and Slevomat Group Ventures.

There are associations representing the interests of these companies. In the Czech Republic it is the Czech Private Equity & Venture Capital Association (CVCA), consisting of investment companies (full members) and members of the advisory services operating within the private equity and venture capital. CVCA is a member of the European private equity and venture capital (EVCA). CVCA wants to raise attention and awareness of the possibilities of private equity and venture capital financing. (Interactive, 2017)

3.2.3   FFF

To obtain the money it is often more important to have contacts or sympathies of those investors, then professional business plans. In the early stage intuition and a willingness to take risks play the biggest role. This is usually the first investment that will test the viability of start-up, in the best case it will later allow to gain more investment. The abbreviation "FFF" is composed of the first letters of words Friends, Family, Fools. Financing from these individuals offers many benefits, but also pitfalls.

In the case of the first two mentioned, it is more likely that it will be in a form of a loan rather than a percentage share. It is a particular type of assistance due to the trust in the person requesting financial assistance, which compensates for greater accountability. Investment risk in case of failure to friends and family can often have a greater impact on the author's life than just a financial loss. Investors are unable to evaluate the potential of ideas and especially its riskiness, because of the close relationship with the author.

The last category is fools. This term has broader meaning. It can be an individual, who has the capital and irrespective of the orientation in the issue invests considerable resources, because he or she believes in author's idea. This type is characterized usually by someone who is willing to take a risk based rather on intuition than expertise. (Entrepreneur, 2015)

An individual who possess significant capital and has the knowledge of specific field, where start-up occur is often classified as Business Angel. The concept is quite broad; some investors may be theoretically on the border between fools and business angels. In case of business angel, the investment is exchanged for shares in the company in contrast with the FFF, where funding may also be provided as a loan or a gift from relatives.

Although the term "fools" at first impression could sound pejoratively, there may be in this category also included an expert or a visionary, who knows how to estimate the possible potential and the level of risk at arising opportunities. Financing through FFF plays an essential role in the hardest stage of life of start-up, but it is behind the success of a number of the largest and most respected companies in the world. (businessangelinstitute, 2013)

3.3 Crowdfunding

Crowdfunding is a very broad topic that includes many forms and its interpretation is not uniform. It has its place among businessmen and entrepreneurs, who want to realize their ideas. It is a tool that can be used as an alternative financing at various levels. In this chapter author will describe concept, motivation, types and pros and cons of crowdfunding.

3.3.1 Introduction of the concept

There are a number of definitions and interpretations of crowdfunding concept. For example, in a publication called The Crowdfunding Bible is a short definition, which says

that *"crowdfunding is the process of asking the general public for donations that provide start-up capital for new ventures".* (The Crowdfunding Bible, 2012)

Mentioned definition confirms and extends its interpretation of the Oxford Dictionary as *"the practice of funding a project or venture by raising money from a large number of people who each contribute a relatively small amount, typically via the Internet".* (Oxford dictionaries, 2017)

Crowdfunding can be compared to regular mass collection, which is now closely associated with the Internet and falls into the so-called electronic fundraising. Is is a public financing where it is possible to support virtually with any amount and any kind of project.

Usually this support is through the so-called microfinance, where project is supported by small amounts from many people. This method has the distinct advantage in comparison to other methods, because the project remains in most cases independent and it is not corrected by any large investors. This keeps the start-up option to make independent decisions without the intervention of other physical or legal persons and thus respond more quickly to user needs. (Steinberg, 2008)

In a broader context it should be noted that this method of financing can sometimes affect the quality of the project in comparison with the realization through controlled investments, where there must be paid considerable attention to the financial evaluation, which can sometimes adversely affect the project management approach. Crowdfunding offers in the early stages much needed funds for the implementation and initial monetization available in the future or product offered. (Enterpreneur, 2017)

3.3.2   Motivation

The following section will describe motivational aspects for both, project authors and backers. Although there were used more sources dealing with motivation, the work: Crowdfunding: Motivations and Deterrents for Participation from Elizabeth Gerber and Julie Hui proved to be the most essential one. There are more possible ways how to divide

motivation, but author of this diploma thesis choose the same segmentation as was used in the work of Gerber and Hui.

3.3.2.1 Motivation to become a project creator

- **Raise funds** – Authors found out quite fast, that crowdfunding platforms are an easy and effective way, how to collect money from large amount of people via internet. Crowdfunding platforms are web-based, that means usage of online payment systems. Also it is getting much easier to promote his or her project since these platforms are connected to all kinds of social media. Authors can quite easily inform a large number of potential backers via Facebook, Twitter, etc. One of the project author said that crowdfunding help them to find the way, how to collect money. As it was already mentioned, crowdfunding is useful tool, how to collect money, mainly for those who are not able to get financial backing from traditional funding sources, such as banks, angel investors and venture capitalists. The principle of raising money goes opposite direction than conventional funding sources. Authors raising specific sums of money from a large number of backers which contribute by small sums, instead of getting same amount of money only from one investor or organization. A project author of an educational toy said that instead of having one or two angel investors or manufacturers, they have like 50,000 micro investors. (Gerber and Hui, 2014)

  Another motivation of authors is easiness of process and also time saving against other traditional fundraising methods, like fundraising event or even grant application. One project author explained his reason of choosing crowdfunding, he said that they needed to make a lot of money in a short period of time, and they didn't have enough time to reach out to a foundation, or a grant. So they decided to go straight to the people.

- **Expand awareness** - On the top of raising money from large amount of people, crowdfunding platforms are great tool to expand awareness about their work and their crowdfunding project. These platforms allow to anyone with internet access to view authors project and get to know everything about it in just a few minutes. A large majority of creators have a short video about their project and of course a

written description for those, who want to know even more about the project. It is really easy, for project authors, to spread awareness about the project by posting their project in social media or also sending their crowdfunding campaign by email to friends and family. A dance project author described dual benefits of crowdfunding. She said that from her point of view crowdfunding is really great way to apprise more people about her project. She sees crowdfunding also as marketing tool.

There are also some cases of using crowdfunding platforms only because of the option of attract a more attention of potential buyers and press media. Authors just want to make project more visible. One such case is described by and anthropological researcher. She explains her reasons of using crowdfunding platforms. After she used crowdfunding platform her research was covered by CNN and Forbes, and after that she states that everything went crazy. She said that normally nobody knows about her grant proposal or just very few close friends.

This example shows how popularization of certain project via popular press and other media helps to raise awareness of people, who are not closely connected with author. (Thecrowdcafe, 2013)

- **Form connections -** Another motivation for using crowdfunding platforms is possibility of making long-term connection with backers. Crowdfunding platforms provide more personal way of transaction than single financial transaction in common e-shops.

Since platforms ensure connection between authors and backers, authors can easily reach their backers and answer all their questions. Interaction gives authors option to cooperate directly with backers. Backers like to participate in product design, for example, authors can allow backers to choose colour options of the product.

Unlike traditional marketing methods, crowdfunding ensures a fast and alternative approach to promote a product and setting up a fan base. The creator of the game project explained his point of view. He thinks that it is like building group of people who are very enthusiastic about his idea. He adds that it can take years for a company to develop a fan base, but when he used crowdfunding, it surely easier to

form connections. Continuing relationship stands in contrast to the short-term relationship that appears in many online commercial transactions, such as shopping goods on the Amazon or EBay.

However, authors are driven not only to form relationship with their backers, but also with another project authors, which are interested in similar topics as them. One author described the experience of meeting a fellow author. He said that it felt like they had some kind connection from very beginning. He adds that you can avoid awkward small talk and talk straight away about something you both find interesting, for example, sharing personal experience from crowdfunding campaign. (Steinberg, 2008)

In a nutshell, project authors are motivated to participate, because they can widen their fan base. It is always satisfaction for author to unite with like-minded people, who voluntarily support his project.

- **Gain Approval -** Authors are also driven by desire for endorsement of both, their ideas and themselves.

The final sum of backers and amount of money collected is usually detected as a quantification of the value of one's project. One author defines how the community's endorsement increased her assurance in her work via online discussion. She said that at the beginning you want to know if people are going to like you and like your work, and she definitely got more confident once people were clearly interested in it and clearly engaging in the dialogue and supporting her financially.

Sometimes, the urge for approval was even larger than desire for capital. A non-fiction project author has clarified how community encouraged her to accomplish the project. She has found it funny that she probably gave other people as much money as she had made on her crowdfunding campaign, but the whole thing is like, a load of confidence she added.

Another author specifies how endorsement of his first project convinced him to start another one. According to him success with his first project empowered him to

start second project. He thinks that it is all about building relationships with people and encouraging them. Project authors are motivated to be engaged in crowdfunding to gain endorsement for themselves and their work. The approval can have several forms. It can be in form of financial subsidy or for example positive feedback.

Unlike traditional financing systems, such as venture capital, bank loans or financial grants, crowdfunding platforms give a rare opportunity to fulfil multiple motivations. (Gerber and Hui, 2014)

- **Autonomy** - Another motivation factor for crowd funders is autonomy. Authors have the main influence on decision-making in contrast with traditional ways of fundraising methods. There is no angel investor or venture capitalist, which could participate and influence in decision-making process, it is up to every project author, how much is he or she willing to listen to an ideas and recommendations from backers. One video designer described his experience with this phenomenon. He saw the problem in big electronic developing studios is, that they often dictate conditions. They own a power over his creative work and do not listen to his ideas. According to him, the problem is that these companies are owned by people, who have a billions of dollars and they just want to accumulate even more money. These owners do not care about the quality of the product or about unique idea, but still, they do all the main decision. Since crowdfunding occur on the market these is alternative option how to raise money and create freely.

Nevertheless it is necessary to have in mind that autonomy also brings some negative cost as one author of non-fiction book described. He said that despite of all compromises he had to made, when he work under established label, still it was easier to get his product on the market and into awareness of customers. Since established company have all the network contacts and also trust and certain reputation among customers. Autonomy brings people confidence in their ability to complete a target on their own. Determining the right direction of their work and be true to their vision is essential for them. (Bretschneider, Knaub & Wieck, 2014)

- **Learn new skills -** Crowdfunding platforms provide big freedom of choice, but also great responsibility. Take care about the whole campaign from the first day till the end brings a lot of responsibilities and much needed skills in various fields. Even though gaining new skills and abilities are not main reasons to participate in crowdfunding. Majority of crowdfunders, both success and failures ones, are motivated to participate again. All respondents said that this experience help them to improve skills, such as communication with the public, marketing, business planning, etc. Authors have to learn how to address their project to general audience and arouse interest among potential backers. They have made interesting but suitable summary about the product or learn how to take photography, which reflect the nature of the product. Video summarizing all essential information is very useful, because it is the first thing that potential customer will click on. One creator describes how this experience enriches her life. She said that it helps her to improve her communication skills as well as help overcome her shyness to speak for herself. She learned what kind of vocabulary to use to sound more positive than desperate, when asking for money.

Generally speaking, project authors are motivated to participate in crowdfunding, because of all reasons above. Gaining financial support is the most important motivation for majority of participants, but spread awareness, form connections with backers and others crowdfunders, acquire approval for their work and themselves, autonomy, and learn new things is not less important. Crowdfunding platforms bring a unique chance to gratify multiple motivations that traditional funding mechanisms do not necessarily satisfy. The next part goes through the motivations of backers, those who provide resources to project authors. (Gerber and Hui, 2014)

3.3.2.2 Backers motivation

- **Reward-oriented intension -** The most common reason for backers in crowdfunding communities is the aspiration to collect all kinds of rewards. Rewards can be in tangible form or it can be certain experience or an acknowledgment. An experience may come in the form of tickets to the first row for ballet premiere, while a tangible

form may be a painting or new device. An acknowledgment may involve, for example, video call with the author of the project. The author´s goal is to give rewards that gratify the backers´ desire to collect. Although crowdfunding has some similarities with consumer experience, it also differs in some. In formal economy backers give money and get their reward almost immediately. Waiting for few weeks or even months before receiving reward is not usual in formal economy, but in informal it is. Even though backers experience unexpected delays, they are still willing to wait to obtain a desired reward. This indicates that backers are well informed about the value of the product, service, or experience that they will receive in exchange for their financial support. Backers represent consumer behaviour, showing interest in receiving a reward in exchange for giving money.

- **Need to help others -** whereas a lot of backers are motivated to collect, others are driven by motivation to "give." This behaviour is based on altruism. Altruism or selflessness is the principle or practice of concern for the welfare of others. This means that backers have strong urge to help authors of projects, because they feel some kind of personal or extended connection.

Sometimes crowdfunding platforms helps to find a way for backers, how to support project, which they were not able to support before, but they wanted to. As one interviewed author said, she found out that there were a lot of friends and family that wanted to support what she was doing and didn't have an avenue to do so. Crowdfunding provided an avenue. (Young Ji, 2014)

Even if the relationship between the author of the project and backers is not always personal, backers are willing to support a young professional, who has unique idea. Some backers feel a need to help authors who are getting close to their goal, if they are convinced that the project will make a meaningful impact. Also if a backer has relationship to an author, he or she is more likely to be aware of the number of hours spent to create the project. Crowdfunding provides backers new way how to support authors and their unique ideas. One backer of community design projects explained, that he always tries to support creative people that have authentically good ideas and maybe wouldn't get mainstream support from the public. They

might be doing something unusual, but you can see that there is something valuable he added.

Positive thing about this kind of motivation is that if project is successfully funded, it is so called win-win situation. The success is shared between authors and backers. Backers are motivated to help others and it does not matter if they know author in person or not. They can be connected by friendship or just by same interests.

- **Be a part of community** - Crowdfunding platforms also ensure a feeling of being a part of a community of like-minded people. One serial technology backer said that he definitely feels a sense of community there and also some sort of responsibility to support others.

Since backers express the desire to see evidence of being part of a select group, backers can easily find a list of people, who backed the project. This gives backers feeling of belonging somewhere, belong to the community, which they voluntarily choose. Backers can see who else support the same project. It also gives backers opportunity to tell their opinion about the design of the final product, which is some kind of privilege of backers.

One backer of a video game project described his interaction with other backers in the design process. He said that he follows the campaign fairly closely. He checked the project website once or twice a day in the forums and interacts with the community online. Later, he with other backers, decided which direction they feel the game should go.

This possibility of collaboration on product design is a unique characteristic of the crowdfunding community. Another part of motivation is feeling of trust. Author shows an interest about opinion of his backers. Backers can discuss with author via platform about the product, they are feeling more comfortable with giving money to unknown person.

Personal Beliefs - Motivation can be also strongly driven by personal beliefs of each certain backer. People tend to support project which are consistent with their beliefs and their identity or to the identity to which they aspire. Every backer

prioritizes his or her inner motives differently. As it was already mentioned some backers are motivated by rewards, others are primarily motivated to support a case. For some backers, the possibility to contribute and collaborate with author on the final product, is the one of the main reasons to participate and support the project. One technology backer explained what he likes about crowdfunding. He likes the idea of people being able to get off the ground without needing to buy into a big giant corporate structure. And also he added that he likes the way people put the ideas they want out instead of having to compromise those ideas in order to get their product out. (Gerber and Hui, 2014)

3.3.3 Types of crowdfunding initiatives and their features

Crowdfunding can have many forms. First mention of this phenomenon is from 2003. Since then it is growing and developing all around the world. Thomas E. Young, author of the publication The Everything Guide to Crowdfunding said that, crowdfunding has 4 main types. These types differ by form of equivalent, which supporter will receive.

3.3.3.1 Donation based

This is the oldest and most basic model of crowdfunding, which is used in all kinds of social, charity and political fundraising campaigns for many years. A person, who contributes is not entitled to any material or financial compensation. The only reward he or she will get is the feeling of satisfaction for helping a good cause. This crowdfunding technique is mainly used in non-profit organization to finance their activities. Donations are earmarked for specific project, so backers know exactly, where their money will be used.

The main reason for donation is social motivation. Donation based model is suitable primarily for charitable and publicly beneficial projects. Backers are usually more loyal, so there is bigger chance of recurring financial contribution than in other types of

crowdfunding. For this type of crowdfunding, timing of the campaign is not essential, since these projects usually do not have any time frame. (Balance, 2017)

Example of such platform is YouCaring. Youcaring was founded in 2011 and is among the world's largest platform based on a donation-based crowdfunding. Main focuses of Youcaring include medical expenses, adoption and education costs. Youcaring already helped to raise more than 500 millions of dollars and backed more than 250,000 fundraising projects. A great advantage of this platform is 0% fees.

Another example is platform Network for Good. This platform was founded in 2001. Since then this platform processed over 1.4 billion dollars in donations for over 125,000 non-profit organizations. It operates on the basis of Internet payment, namely a system Donate Now. Donate Now allows potential donors make a payment, either on their website Network for Good or directly on the website of the organization. Furthermore, it operates as a fundraising consultant for non-profit and charitable organizations. Registration and use of financial services to the non-profit organization is free of charge. Charges in this case are on the side of donors and vary from 3% to 5%. These percentages may be deducted from financial contribution or it is possible to increase the amount of the service fee to assured, that the organization will receive 100% of the amount. (Forbes, 2013)

3.3.3.2 Debt based

Debt based crowdfunding, also known as peer to peer lending (P2P) or social lending. Debt-based crowdfunding works on a different principle than other types of crowdfunding. In this case backers do not support any idea or project.

In a nutshell, it is mutual borrowing money without intermediaries. It is still considered as crowdfunding, because a huge amount of people borrow necessary funds to individuals. Another common denominator, with other crowdfunding types, is a high degree of decentralization. Borrow money is no longer only privilege of banks and wealthy investors. P2P can have many forms. Debt-based loan can be classified into direct and indirect, further subdivided into guaranteed loans and without guarantees. For direct loans lenders have the option to choose a specific person, who receives their financial support. Generally

indirect loans are used more, since it is less risky option. Guaranteed and without guarantee loans are used evenly. Higher risk for loans without guarantees is offset by higher interest rate.

This model firstly appeared in United Kingdom in 2005, where the first platform - Zopa was formed. A year later American version – Prosper was founded. Another very important platform is Zidisha, founded in 2009, which allows performing these transactions internationally. (Young, 2013)

Zopa represent the most important platform of this kind. The main advantages of this platform are very low interest rates, simplicity of the user interface and minimum additional charges. Requirements for the user, who wants to take a loan, are as follows: provable identity, sufficient income of applicant, proof of creditworthiness and banking history of applicant and also applicant has to have more than 3 years of permanent residence in the United Kingdom.

Loan process itself is simple. Applicant enters into an online calculator required amount of money and the period for which it wants to repay loan. According to the actual offers from lenders, the applicant determine, whether offered conditions suit him or her or not. If yes, the applicant will register and within 24 hours after notification the transaction will arrive. To become a lender is also easy, besides personal data, the lender must set the conditions for cooperation. That means - amount of money that he or she wants to provide, period for which he or she will lend this amount of money and monthly payment method. Minimum amount is 10 pounds and the maximum limit is not specified. The recommended amount is to provide at least 2000 pounds, because this amount has significantly higher efficiency. Another very popular service of Zopa is instant refund, which is sanctioned by 1% of the refund amount.

Great growth of P2P platforms came in 2008, when thanks to the financial crisis, banking institutions come up with new conditions that prevented the possibility of loans for a wide range of subjects. (Zopa, 2010)

Dr. Mohammed Yunus is considered as a father of microcredit. He founded a first bank (the Grameen Bank) that focused on microcredit for poor people. He was awarded by Nobel Peace Prize in 2006 for his lifetime achievement.

3.3.3.3 Equity based

This is the newest type of crowdfunding initiatives, which really gives the opportunity to buy part of the company. Main principle of this method is to provide financial support in exchange for the capital share in the company. It is a direct investment into the enterprise. It serves companies to attract investment from a group of people instead of investment from private investors or business angels. The roots of this principle are in Europe, particularly in United Kingdom. Nevertheless crowdfunding originated in the US, there was not possible to use this model, until 2012, as there was a legal limit. Sale of shares in every company was tightly regulated by The U.S. Securities and Exchange Commission. The rules came in 1933 and were intended to protect small, unsophisticated investors. Companies that want to offer their shares directly to investors, had to work only with accredited investors or with investors, who had net assets worth at least $ 1 million. Small investors were able to buy only through the stock exchange. Due to business development in 2011, lobbying in USA began to change the law so that entrepreneurs in early stage of their companies can acquire their own capital through crowdfunding. The change came in May 2012, when the JOBS Act (Jumpstart Our Business Startup Act) was signed by President Barack Obama. Thereby annulled of the previous regulation in the field of investment and simplify the purchase of shares without the need of stock exchange. (Young, 2013)

Application of equity-based model is targeted at new business projects and start-up companies, where the investor can do a profitable purchase of shares in young company, which has assumption for growth, but yet cannot sell its shares on the stock exchange.

The largest platforms that support equity-based crowdfunding are AngelList, Early Share, CrowdCube and Seedrs.

CrowdCube was founded in 2010 in United Kingdom. From the beginning of its operation, CrowdCube supported over 100 business projects. In March 2013 was approved request for official authorization of CrowdCube. This authorization in United Kingdom is granted by Financial Services Authority (FSA), which provides the control and regulation of financial markets.

Conditions for authors of projects are stricter than for other crowdfunding methods. Author must be 18 years or older and must meet the legal conditions for starting a business in the United Kingdom. Campaign lasts for 90 days and if the requested amount is not collected, all financial contributions will be returned to backers. In case of failure of project, there are no charge fees. Minimum limit for project is £ 10,000, and the smallest possible contribution is £ 10. The maximum contribution amount is not limited. Successful projects CrowdCube deducts 5% of the amount withdrawn and another £ 250 as fees. Besides these fees, author is obliged to pay another £ 1,850 as legal fees. (Crowcube, 2013)

3.3.3.4 Reward based

Reward based is undoubtedly the most widespread model of crowdfunding. As the title indicates, the model is founded on rewards. Form of the reward, depends purely on the author and the nature of his or her project. Reward based model can be used by those, who can provide non-financial reward to supporters.

Rewards usually have lower value than the amount granted. However, the perception of value is subjective and in the eyes of the recipient can be much higher than its real value. From an economic standpoint, in order to help decision making to support the project, the overall benefit has to be greater or equal to the price paid. Supporter gets the reward in form of a service, a product or a possibility of attending the certain event. (De Bruysere, 2012)

Rewards are set from the beginning of the campaign and each backer knows exactly what he or she will get for his or her financial support. Rewards are graded according to the contribution to the campaign, but it does not mean they are fixed amounts. There is only the minimum amount for the acquisition of the reward, but backers can contribute by

bigger financial amount, if they want. The number of pledges is not limited, but depends on the size of the project and the requested amount. The number of possible pledges usually ranges in the interval of 5 to 15.

Thomas Elliott Young in his book, The Everything Guide to Crowdfunding points out that sometimes backers misunderstand the principle of rewards. Many supporters approach to crowdfunding as a classic business model, which can lead to disappointment and discouragement follow in the future. Crowdfunding is not presale, although some may argue that this model resembles classical presale and some supporters perceive it that way, but there are several key differences. If the backer gives money to the project, for example, the creation of computer games or a movie, he or she does not get reward for a very long time, which may be in the order of several months, sometimes even years. (Balance, 2017)

The second difference is the product itself, because the final product is often only designed on the paper at the time the campaign or there is only a very early version of the product. During implementation may have led to various circumstances, which had a fatal impact on the final form of the product. Especially for creative projects, the final product may differ in many ways, which may not always be taken positively by the backers. This factor is also important to comprehend before backer decides to support the project.

On the other hand, the creator gets a great space to engage his or her creativity and reward appropriately graded according to the amount granted, the rewards can serve as a "manipulation" tool. Some project authors allow to backers to intervene more into the development of final product based on higher amount of financial contribution. If the levels of rewards are cleverly chosen, it is possible to obtain a much higher average contribution than purely with donor approach (De Bruysere 2012).

3.3.4   Drawbacks of crowdfunding

Like almost everything, crowdfunding has certain advantages as well as disadvantages. Crowdfunding benefits pretty much correspond with motivation of authors, which was already described in the thesis in different chapter. In this part author will describe the most essential drawbacks.

Access to funds and delivery time - Most of the crowdfunding platforms do not allow author to get access to pledged money until the end of the campaign. This rule is reasonable, but yet quite stressful for authors. Author cannot start to fulfill his/her obligations forwards the backers since he/she has to wait till the end of the campaign to get a money and start. Delays in delivery are very often in case of crowdfunding projects.

Copycats – Author promote his unfinished idea to the public before he or she can actually deliver. It could be a bit risky, because potential competition can try to steal an idea and be quicker in delivering the final products, since they do not have to wait till the end of campaign. True is that the success of every interesting idea is highly dependent on right execution.

Rules – Most of the crowdfunding platforms have strict rules that have to be followed. This gives less control to authors over his or her project. (nibusinessinfo.co.uk, 2017)

Risk of failure – authors will invest tireless effort into launch of the project. It demands constant self-promotion, throughout the entire duration of the campaign without guarantee of positive result. It should be noted that failure of campaign will be very public.

All or nothing approach – Most of the platforms run on „All or nothing approach". If the target amount isn't reached, potential investors get their money back and the business goes away empty handed. In other words if the author achieves only 98% of his/her funding goal, his/her campaign will not be funded. It always has to be 100% of funding goal or more.

Investment of money – It is essential to create a budget for launching the project via crowdfunding platform before the goal amount is determinate. Author has to take into account campaign cost. Costs may be related to preparing a model product or investment in promotional materials such as photography or videography. This expense will stay even if the campaign is not successful.

Unsuitable for Large Capital Requirements – Crowdfunding typically works for projects that set goal under $100,000 of capital. Bigger goals are barely successful via

crowdfunding platforms. If a potential idea requires larger funding, it should be considered other traditional source for raising capital.

Inflexible – Once author´s project is successful and fully funded via Crowdfunding, author cannot make any drastic changes. Since backers already have some expectation about the final product. It could damage author reputation and also his or her brand. (Knipp, 2017)

3.4 Platforms

The choice of the most suitable crowdfunding platform is important. Platforms work as a space for gathering projects through which it is possible to support the projects. Each platform has a specific design, operating conditions and user interface. Therefore, a potential author should thoroughly analyse the possibilities of individual platforms. This chapter illustrate platforms diversity.

The differences between platforms are in the following areas:

- The thematic focus of the platform

- Target group of the platform

- Range of platform

- Operating conditions

- User interface

3.4.1 IndieGogo

Focus – IndieGogo is not thematically defined, but support for creative projects is still the strongest

Users - Contributor and author of the project can be anyone.

Special services - Indiegogo offers quality facilities in the form of consulting and analytical services. There is also strong links with social media.

Principle - Authors have the choice between fixed and flexible model. Fixed works on the same basis as Kickstarter - either everything or nothing. For flexible authors can retain contributions collected, even in case of failure. This service is then charged more. (Indiegogo, 2017)

Fees – If the project doesn't reach its goal, then fee is 0%. If a project is fully funded, Experiment charges a 5% platform fee.

3.4.2 Ulule

Focus - Ulule is the European equivalent of the American platforms. Thematically it focuses on the creative, social and humanitarian projects. Ulule is the 1st European crowdfunding site.

Users – Contributor or author can be any registered user.

Special services - the advantage is variability currency. The base currency is the Euro, but also accepts CZK. Principle of sorting projects is based on the votes ("like") from users, which is usually the responsibility of the working team of the platform.

Principle - either everything or nothing. No upper limit.

Fees: 5% on successfully completed projects + 3.4% charges for PayPal and $ 0.25 for each transaction. (Ulele, 2017)

3.4.3 Experiment

Focus – Experiment is a community for funding and sharing real scientific discoveries. Over 39,000 members supporting 730 funded experiments are helping to push the boundaries of knowledge. Experiment is focus on the scientific community and created by scientists for scientists. You can raise funds for cases as diverse as biology, physics, political science or computer science.

Users – author and contributor can be anyone.

Special services – researchers share progress, data, and results directly with backers. Usually this comes in the form of peer-reviewed journal publications, conference proceedings, academic posters, graduate theses, open data sets, and more. As a backer, you'll be able to see how much of a scientific impact you've made.

Principle – either everything or nothing. No upper limit.

Fees – it is an all-or-nothing fundraising platform. If the project doesn't reach its goal, then fee is 0%. If a project is fully funded, Experiment charges a 5% platform fee plus payment processing fees (around 3-5%). (Experiment, 2017)

3.4.4 HitHit

The platform was founded in 2012 and is the first fully functional platform dedicated crowdfunding in Czech Republic. Main aim is to support projects in the field of culture and sport. During the first 6 months of its existence was raised over 2 million CZK and 21 projects were successfully funded.

Focus – creative projects, culture and sport events.

Users – author and contributor can be anyone.

Special services – Hithit has great realization team and simple user interface.

Principle – either everything or nothing.

Fees – The basic commission for projects up to CZK 200,000 is 9%. For larger projects Hithit arrange individual conditions that will suit to specific project. The commission it is necessary to count Hithit´s VAT on commission and bank charges around 1.5-2.5 %. (HITHIT, 2017)

3.4.5 Kickstarter

Kickstarter was founded in 2009 and it is the largest crowdfunding platform in the world. Kickstarter enabled the implementation of more than 139,000 projects, which managed to get about $3,5 billion. More than 248,000 projects were unsuccessful. Current overall success rate of projects is around 36 % (February 2018).

Focus - Kickstarter is from the beginning focused exclusively on creative projects.

Users - Contributors can be anyone, but author only from following countries - Austria, Australia, Belgium, Canada, Switzerland, Germany, Denmark, Spain, France, the UK, Hong Kong, Ireland, Italy, Luxembourg, Mexico, the Netherlands, Norway, New Zealand, Sweden, Singapore, or the US.

Special services - authors of the project at Kickstarter have a good user interface, such as technical support during the entire phase of the campaign and excellent links to social networks. Interesting part are statistics published regularly and updated.

Principle - In case that the project achieves the required amount, author receives the entire sum. Otherwise, the authors of the project will not receive anything, and all contributions are refunded.

Fees - from a successful campaign is deducted 5% of (selected) amount. Unsuccessful projects pay nothing. (Kickstarter, 2017)

3.4.5.1 History

Kickstarter history began in 2005 when Perry Chen, Yancey Strickler and Charles Adler began to explore the idea of creating a crowdfunding platform that focuses only on creative ideas. Probably the greatest merit in the development of the project has Yancey Strickler, who personally encountered a problem with the financing of cultural events. Strickler wanted to organize a concert in New Orleans and the idea that he is not able to determine in advance, how many people would be interested bothered him. And thus was born the idea of creating a site where the project author only offers his vision about a service or

event. Subsequent implementation will be in the hands of the fans, who themselves determine whether it makes sense to support it.

The preparatory phase lasted about four years and 28 April 2009 the portal has been launched. Since then, thanks to Kickstarter were completed over 139,000 projects for which fans have contributed more than 3,5 billion dollars. The ground-breaking success of Kickstarter, besides the statistics, also suggests various awards. For example, in 2011, Kickstarter has been awarded the title "Best Web page 2011". Despite the enormous success the founders insist on the original idea and form of the portal. Kickstarter still only supports creative projects. Company is based in Brooklyn, New York. Nowadays the company has 118 team members. Half of them work on the product (designing and coding) and the other half work with the community. (Kickstarter.com, 2017)

3.4.5.2 How does it work?

The preparatory phase of the project - Way of funding through crowd may seem simple at first glance. When to go more in-depth process itself, it appears that this is not so and to the successful completion of the project leads quite a long way, which is necessary to prepare properly. At the very beginning there is an idea, which an author has desire to realize and willing to do something about it. Author needs to organize his or her thoughts and determine, what is needed to get an idea, and then transformed it into a project. Reflect on what sphere project falls in, whether it will be a musical project, charity, sport or it will touch any community, etc.

Selection of suitable platform is essential. Nowadays there are more platforms, some are narrowly focused, for example, on sports projects, others have a wide range of finance and allow almost anything. Other criteria that will influence the choice of the platform are size, popularity and also the level of charges for use of this service, which varies on the individual portals. (Kickstarter, 2017)

Once the site is selected next step is to create presentation itself or how it is called, crowdfunding campaign. Among the most important things belongs the name of the project, a promotional video and determine pledges. All this must be preceded by thorough

preparation, which is crucial. To create and execute a campaign is needed to develop the following activities. (Steinberg 2012)

- **Survey of competitive projects and campaigns**

Study of other projects is considered to be one of the key activities for success. The author of the new project should analyse other projects, both successful and unsuccessful, and examine how their campaigns were conducted and what could have made them successful / unsuccessful. It is also necessary to find out, if the project has a competition and how large is the target group.

- **Collecting underlying materials**

It is important to have enough material to work with during the campaign, such as photos, models, samples and other audio-visual material.

- **Video**

Video needs to be paid more attention; it is one of the first contacts with public. Most people just click the video first and then read more. The video does not need to be filmed professionally but its quality should correspond to the theme of the project. From the people who are looking for money to make a film a better video will be expected than, for example, a project to publish a book. Video is not a necessary part of the campaign. (Young, 2013)

- **Choosing a communication strategy**

It is very important to determine the way of communication. To find the right way, you need to have a clear goal and project vision, know exactly who I am and what I want, and be able to communicate clearly, also to know who is my target group.

3.4.5.3 Categorization

Kickstarter is divided into 15 main categories as follows: art, comics, crafts, dance, design, fashion, film&video, food, games, journalism, music, photography, publishing, technology and theater. Every category has subcategories, which enable backers to find desire category

more easily. There is also option to sort project by collections: projects we love, trending, nearly funded, just launched, everything.

3.4.5.4 Projects

Each project is reviewed before its launch to make sure that project fulfil all Kickstarter requirements. Originally the Kickstarter campaign could last for 90 days, but after two years of observation the maximum length of campaign was shorten to 60 day. The reason was that longer campaign has significantly lower success rate. Nowadays campaigns can last from 1 to 60 days. Generally recommended is to have campaign at 30 days or less. It helps to create sense of urgency around the project. The maximum pledge amount varies based on a project's country of origin. A project creator cannot set a reward tier higher than the maximum pledge amount. The maximum pledge varies a bit by country of origin, but on average it is around $10,000.

If author does an extraordinary job, whether through a well-executed video, extra thoughtful rewards or an extremely impressive story, Kickstarter team may reward his or her campaign by inclusion of the project into the collection – Project we love. (Kickstarter, 2017)

3.5 Literature review

Crowdfunding, as the new phenomenon of last decade, has changed how, why, and which ideas are brought into existence. As the number of crowdfunded projects increase, it is quite important to understand what cause that people either create or fund these projects. There are several studies investigating the crowdfunding phenomenon.

What makes successful crowdfunding campaigns and how shared geography and personal networks was examined by Mollick, (2013). In his study he evaluated 48,500 crowdfunding projects, which altogether raised an amount of $237M. There is a description of the essential dynamics of success and failure amongst crowdfunded ventures. Study findings suggest that personal networks and the quality of the project are associated with the success of crowdfunding efforts. The type of projects proposed as well

as successfulness of fundraising is related to geography. Results of the study offer comprehension of the emerging phenomenon of crowdfunding, and generally also clarify the ways that the approach and actions of founders may affect successfulness of gaining entrepreneurial financing.

Belleflamme, Lambert and Schwienbacher (2013), compared in their study two forms of crowdfunding: pre-ordering vs. profit sharing. They show, with means of a unified model, that the entrepreneurs in case that initial capital requirement is relatively small compared with market size prefer pre-ordering, otherwise they prefer profit sharing. It means that profit sharing is perceived as optimal for entrepreneurs with bigger capital requirements.

Marom, Robb and Sade (2016) examined if crowdfunding can reduce the barriers of female entrepreneurs to raise capital. Their paper Gender Dynamics in Crowdfunding (Kickstarter): Evidence on Entrepreneurs, Investors, Deals and Taste-Based Discrimination revealed that women represent about 35% of the project leaders and 44% of the investors on the platform. The conclusion is that on average, men seek distinctly higher levels of capital than women for their projects, they also raise more funds than women. Nevertheless, women achieve higher rates of success in funding of their projects. Just around 23% of projects that men invested in were led by females, while more than 40% of projects that women invested in had female project leads. Multi-variable analysis showed significant positive correlation between project leader gender and the percentage of the same gender investors. There emerge questions which factors explicate the fact that female-led projects are largely financed by women. In an attempt to distinguish taste-based discrimination from statistical discrimination there was conducted a survey of investors from the Kickstarter platform, there was found out an evidence that some of lower investment by men in projects led by women can be attributed to taste-based discrimination.

4 Practical Part

This chapter will present the preliminary research, which aims to estimate which factors have a significant influence on campaign success. This research will be based on the analysis of selective data collected from platform Kickstarter. The analysis will allow to estimate, which factors are more or less essential to improve chances of campaign. These estimations will provide basis for the conclusions on the effect of every and each factor on the campaign success.

4.1 Data collection

Only sources of the data used for this research are data from Kickstarter.com. The model uses data set from 60 randomly selected campaigns from Kickstarter platform. Since Kickstarter divides projects into 15 main categories, author of this thesis choose 4 projects from every category. The observation was made from December 2016 till February 2017.

Data set was shorten from 60 to 57 observation, because some of the campaign were cancelled or disqualified during observation. Choice of variables is limited on information provided by Kickstarter platform.

As it was already mentioned above, data base for econometric model were collected from the most well-known and also the biggest crowdfunding portal. There were more than 2240 projects available for observation during the period. Author decided to choose randomly 4 projects from every category, in total 60 campaigns.

The observed indicator of a campaign's success is the percentage of money raised compared to the target amount. In the chart below, there is the percentage of money raised for every campaign included in the research.

Figure 1: Campaigns according to the percentage of money raised
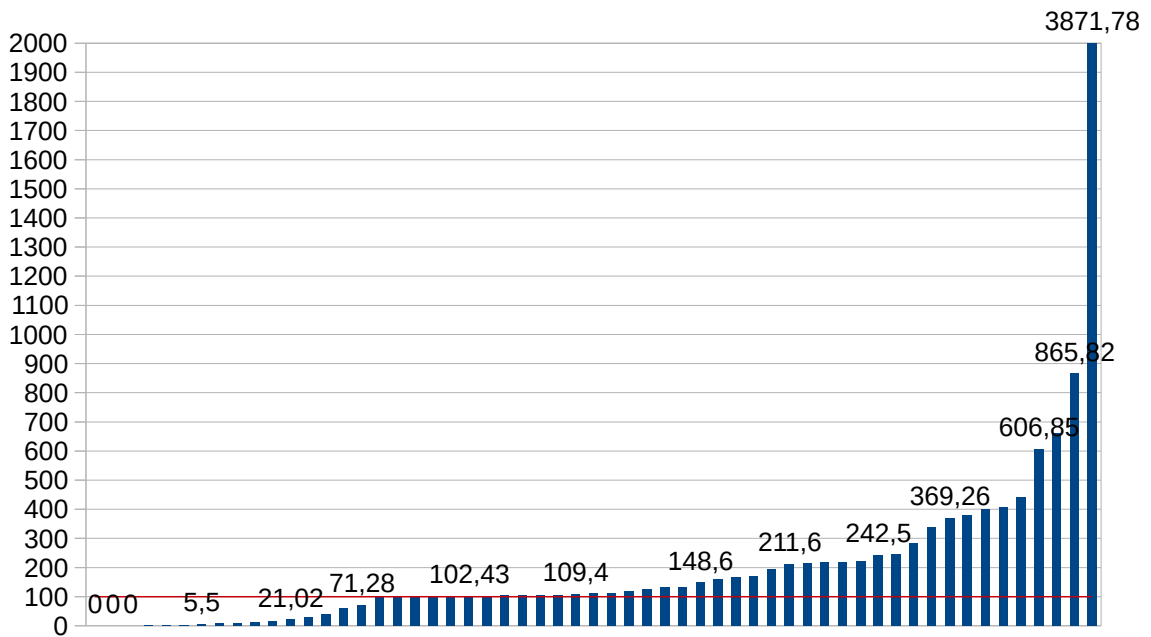
One of the campaigns managed to raise almost 3900 %, in another words 39 times the target amount. The other campaigns managed to raise from 0 to 900 %. The red line shows the border of 100 %, which means the amount of money raised equals the target amount, therefore such campaigns are successful. Analysis of the data set showed following findings.

From 57 campaign included in the research, 16 of them have not reached the goal as the percentage of money raised is below 100, and from those 3 campaigns raised no money at all. The other 41 campaigns raised more money than the target amount was. As can be seen in the chart above, most of the campaigns raised at maximum 4 times the target amount, only 6 campaigns raised more than that.

In the chart below, the real money raised can be seen. The campaigns are sorted by the percentage of money raised.

Figure 2: Real money raised in campaigns
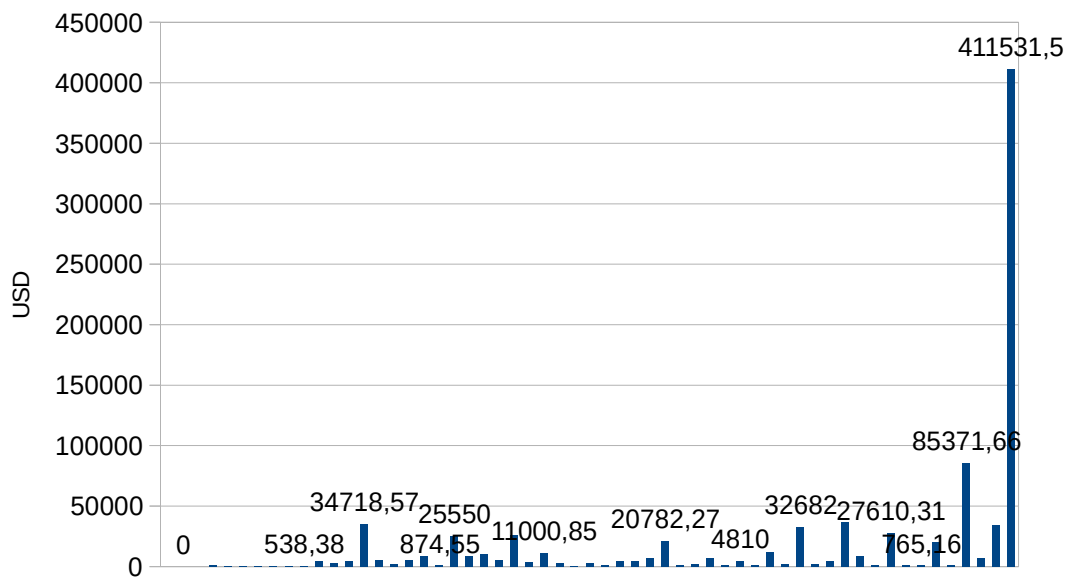
It is clear that there are campaigns that raised a little amount of money, but still 4 or 6 times more than the target amount was. And vice versa, there are campaigns that raised more money in reality, but it is less than the target amount was. But it is the percentage of money raised, that give us the information, if the campaign succeed or not, because campaigns that raise less than 100 % do not get any money at all.

4.2   Econometric modelling

The process of econometric modelling was done based on the data provided by kickstarter.com. That contains the definition of variables, date base analysis, different model forms estimation and their economic, statistic and econometric verification, selection of the best model, insignificant variables elimination and model application.

4.2.1   Definition of variables

- **amount of money raised** – dependent variable

The amount of money raised in the campaign is the variable that will be explained by the other variables. As mentioned before, there are two possible indicators of a campaign's success. One is the percentage of money raised compared to the target amount, and the other one is the real amount of money raised in the campaign. Therefore there will be two

different models estimated, which will be then compared to each other as a part of the model application. The percentage of money raised of the target amount will be indicated in percentages, while the real amount of money raised will be indicated in US dollars.

- **target amount of money** – explanatory variable

Setting an appropriate target amount is very important for a campaign's success. Higher target may result both, the increase or the decrease of money raised in a campaign.

- **video** – explanatory dummy variable

Most of the campaigns on kickstarter.com use a video to explain and promote the idea of the startup. Still there are some campaigns, where there is no video promotion. The hypothesis is that a campaign with video will be more successful (will raise more money) than a campaign without video. The presence of a video in a campaign will be distinguished by a dummy variable – 1 for presence, 0 for absence. The variable itself does not take into account whether the video is good or not, therefore it is possible, that the impact of the variable will be evaluated as insignificant, because one video may help to increase the money raised, while a different video may harm the campaign.

- **English** – explanatory dummy variable

Most of the campaigns are in English, but there are few which are in a different language. Dummy variable will be used again to distinguish the potential effect of the use of English – 1 for English campaign, 0 for other languages. The hypothesis is that an English campaign will increase the amount of raised money.

- **length of campaign** – explanatory variable

The length of a campaign will be indicated in days. The hypothesis is that the longer campaign is, the more money will be raised.

- **Minimal contribution** – explanatory variable

Each campaign set up its own options of contribution. One of the possibilities is to set up a minimal amount of money anyone can send. Higher minimal contribution may result both, the increase or the decrease of money raised in a campaign. The minimal contribution will be indicated in US dollars.

- **number of projects launched** – explanatory variable

The number of projects represents how many projects the creator of a campaign has managed so far. The hypothesis is that more projects will increase the amount of raised money, as it may be a sign of a trustful and experienced creator.

- **number of updates** – explanatory variable

Every campaign on Kickstarter can post updates during the campaign. As it is often used to increase the money, it will be used to explain it too. The hypothesis is that the more updates a campaign post, the more money it will raise.

- **number of comments** – explanatory variable

Everyone sign up on the Kickstarter may write a comment to a campaign as a sign of his interest or as a suggestion for improvement or a question. It is clear that campaigns causing great interest will have more comments. Therefore the hypothesis is that the more comments, the more money will be raised during a campaign.

A summary of all variables mentioned above is in the table below with units and abbreviations used later in the model estimation.

Variable		Units	Label
y	Money raised – explained	% or USD	(perc_)raised
x_1	Unit vector – explanatory	–	const
x_2	Video	–	video
x_3	Number of projects	projects	num_proj
x_4	English	–	english
x_5	Length of campaign	days	length
x_6	Number of comments	comments	comments
x_7	Number of updates	updates	updates
x_8	Minimal contribution	USD	min_contr
x_9	Target amount of money	USD	target
u	Residual	USD	uhat

Economic model:

$$y = f\left(x_1; x_2; x_3; x_4; x_5; x_6; x_7; x_8; x_9; x_{10}; x_{11}; x_{12}; x_{13}\right)$$

4.2.2 Data analysis

The data collected from kickstarter.com were further analysed for better understanding of the particular variable.

Figure 3: Length of campaigns

In terms of length of campaigns, most of them are between 30 and 40 days long. Few of the campaigns are longer, some approach 60 days. Significance of dependence of the campaign's success on its length will be examined later in the process of econometric modelling.

From the information provided on the internet website kickstarter.com, following statistics were created:

97.5 % of campaigns are in English

80.7 % of campaigns use a promotional video

49

Figure 4: Campaigns according to the number of projects launched before
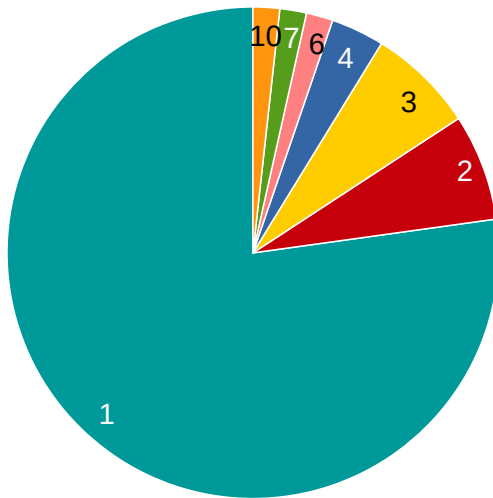
Most of the creators run only one project, as can be seen in the chart above. Some of them run 2 or 3 projects, and only few more than that. The significance of this parameter will be tested later as well.

Figure 5: Campaigns according to the number of updates

From the perspective of campaigns' updates, most of them posted between 3 to 8 updates during the campaign. But there is also around 25 % of campaigns, that did not post any update at all. Some campaigns used more than 10 updates and the biggest number of updates is almost 40. The average number of updates is 5.4. How does the number of updates influence the amount of raised money will be discovered later in the thesis.

Figure 6: Campaigns according to the number of comments
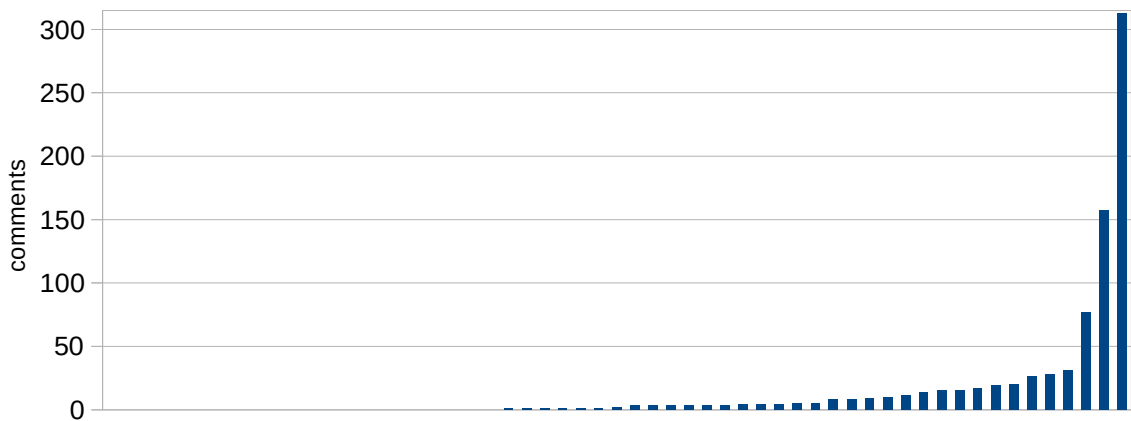
Even though the number of comments on Kickstarter at each campaign has a similar scatter to the number of updates, it is not the same. There are more campaigns with no comment at all than campaigns with no updates. Also, the differences in the numbers are bigger. Campaign with the most comments has more than 300 of them; meanwhile most of the campaigns have less than 30 comments. The average number of comments is 14.5.

Whereas the biggest number of updates was less than 10 times the average, the biggest number of comments is more than 20 times the average. The average deviation of the numbers of updates is only 6.7 , while the average deviation of numbers of comments is 46.5.

Figure 7: Campaigns according to the minimal contribution
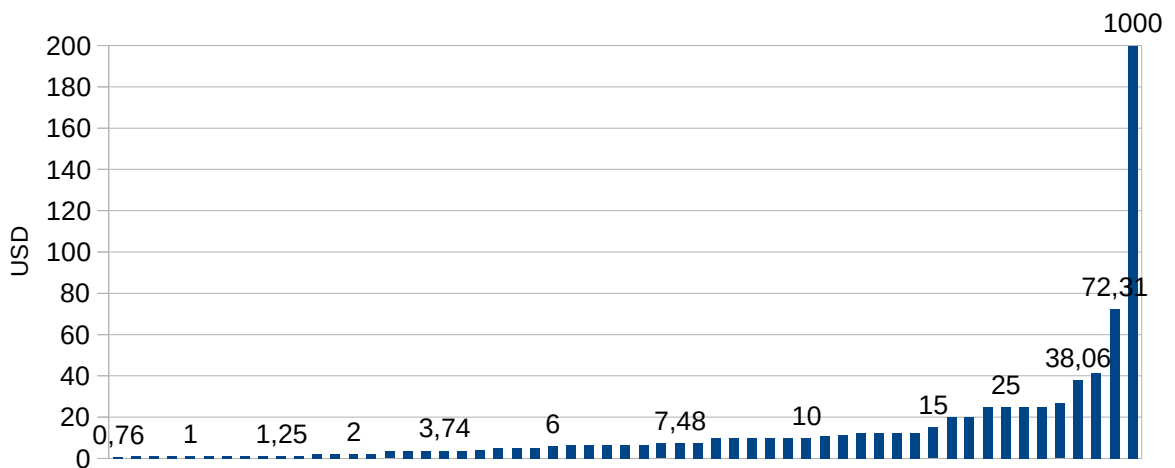
The chart of minimal contribution set in each campaign shows that most of them are lower than 40 dollars. One exception is set on 1000 dollars. The average minimal contribution is set on 27.7 dollars, but most of it is lower than that.

Figure 8: Campaigns according to the target money
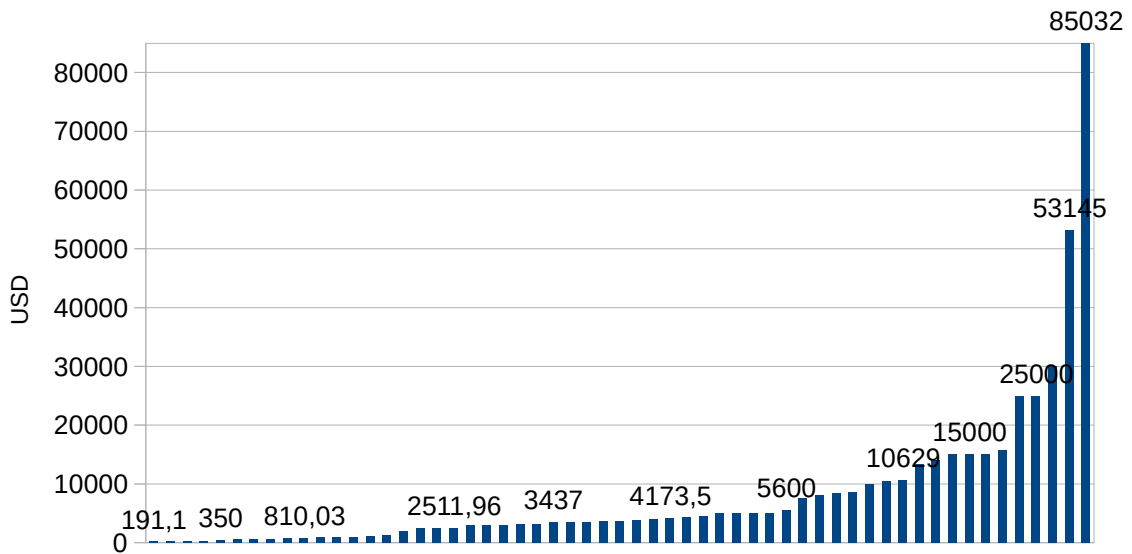
The average target amount of money is 8,230 dollars. Again, most of the campaigns are lower than the average because of the two or three highest numbers. The target amount may have big influence on the money raised during the campaign. The highest amount is 10 times the average, which is similar as the number of updates.

Previous data analysis showed a similar trend in each variable. Most of the campaigns are below the average in most of the values and only few are above that. Which of the variables are significant and which not will be tested in the modelling.

4.2.3   Estimation of the econometric model for Percentage of money raised

As the first step the test to detect multicollinearity will be performed. Multicollinearity is too high for a model estimation, when the correlation coefficient between two explanatory variables is lower than -0.8 or higher than 0.8. In the following correlation matrix, the level of collinearity may be identified.

perc_raised	raised	Video	Num_proj	English	
1,0000	0,9519	-0,0017	0,2621	0,0889	perc_raised
	1,0000	0,1070	0,1219	0,0557	raised
		1,0000	-0,2609	0,0838	Video
			1,0000	0,0954	Num_proj
				1,0000	English

52

Length	Comments	Updates	Min_contr	Target	
-0,0027	0,9218	0,3714	0,0417	-0,0455	perc_raised
0,0813	0,9141	0,3219	0,0008	0,1206	raised
0,0808	0,0900	0,1213	-0,2798	0,2247	Video
-0,0513	0,2566	0,1836	-0,0399	-0,1286	Num_proj
-0,4231	0,0740	0,1676	0,0459	0,0509	English
1,0000	0,0418	-0,1032	-0,0401	-0,0148	Length
	1,0000	0,4344	-0,0104	0,0747	Comments
		1,0000	-0,1220	0,0273	Updates
			1,0000	-0,0257	Min_contr
				1,0000	target

All of the coefficients between two explanatory variables are between -0.8 to 0.8 and therefore there is no multicollinearity, which would be an obstacle to model estimation.

For the estimation free software Gretl is used. Model is estimated with a least squares approach.

Estimation 1

Model 1: OLS, using observations 1-57

Dependent variable: perc_raised

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	2.08332	2.08572	0.9989	0.3229	
Video	−0.676202	0.776602	−0.8707	0.3882	
Num_proj	−0.0158194	0.180572	−0.0876	0.9306	
English	0.427869	1.36019	0.3146	0.7545	
Length	−0.0184032	0.030816	−0.5972	0.5532	
Comments	0.106384	0.00670742	15.8607	<0.0001	***
Updates	−0.0273432	0.0464023	−0.5893	0.5584	
Min_contr	0.00109475	0.00218156	0.5018	0.6181	
Target	−3.98983e-05	2.03518e-05	−1.9604	0.0558	*

Mean dependent var	2.329489	S.D. dependent var	5.204863
Sum squared resid	196.8151	S.E. of regression	2.024923
R-squared	0.870267	Adjusted R-squared	0.848644
F(8, 48)	40.24870	P-value(F)	1.01e-18
Log-likelihood	−116.1971	Akaike criterion	250.3941
Schwarz criterion	268.7816	Hannan-Quinn	257.5401

In the model estimation above, most of the variables are evaluated as insignificant. One of the reasons may be non-linear influence of the variables. Therefore non-linearity test for squares was performed.

```
Auxiliary regression for non-linearity test (squared terms)
OLS, using observations 1-57
Dependent variable: uhat

                  coefficient    std. error    t-ratio     p-value
         --------------------------------------------------------------
  const            1.10713       2.28345       0.4848      0.6303
  Video            0.454893      0.470022      0.9678      0.3387
  Num_proj        -0.754496      0.379987     -1.986       0.0536    *
  English         -0.00768342    0.830095     -0.009256    0.9927
  Length          -0.0665715     0.105554     -0.6307      0.5317
  Comments        -0.111855      0.0136882    -8.172       3.23e-10  ***
  Updates          0.191163      0.0718092     2.662       0.0110    **
  Min_contr        0.0264271     0.0148293     1.782       0.0820    *
  target          -2.44120e-06   3.41919e-05  -0.07140     0.9434
  sq_Num_proj      0.104343      0.0406363     2.568       0.0139    **
  sq_Length        0.000883673   0.00123680    0.7145      0.4789
  sq_Comments      0.000393922   4.42507e-05   8.902       3.21e-11  ***
  sq_Updates      -0.00372464    0.00200114   -1.861       0.0697    *
  sq_Min_contr    -2.42835e-05   1.46947e-05  -1.653       0.1059
  sq_target        1.97619e-10   4.48407e-10   0.4407      0.6617


  Unadjusted R-squared = 0.704149


  Test statistic: TR^2 = 40.1365,
  with p-value = P(Chi-square(6) > 40.1365) = 4.28229e-07
```

The non-linearity test confirmed that some of the variables have a non-linear influence on the dependant variable.

Based on the test above, squared variation of selected variables was added to the original model.

Estimation 2

Model 2: OLS, using observations 1-57

Dependent variable: perc_raised

	Coefficient	Std. Error	t-ratio	p-value	
const	1.82215	1.20397	1.5134	0.1373	
Video	−0.273799	0.449296	−0.6094	0.5454	
Num_proj	−0.736817	0.372106	−1.9801	0.0540	*

English	0.343209	0.810586	0.4234	0.6741	
Length	−0.0115474	0.0179364	−0.6438	0.5230	
Comments	−0.00442425	0.0133994	−0.3302	0.7428	
Updates	0.149676	0.0683412	2.1901	0.0339	**
Min_contr	0.0278605	0.0144764	1.9245	0.0608	*
target	−2.8183e-05	1.22074e-05	−2.3087	0.0257	**
sq_Num_proj	0.101106	0.0398387	2.5379	0.0148	**
sq_Comments	0.000389713	4.32324e-05	9.0144	<0.0001	***
sq_Updates	−0.00338248	0.0019112	−1.7698	0.0837	*
sq_Min_contr	−2.47751e-05	1.433e-05	−1.7289	0.0908	*

Mean dependent var	2.329489	S.D. dependent var	5.204863
Sum squared resid	59.17778	S.E. of regression	1.159720
R-squared	0.960992	Adjusted R-squared	0.950354
F(12, 44)	90.33149	P-value(F)	6.76e-27
Log-likelihood	−81.94810	Akaike criterion	189.8962
Schwarz criterion	216.4559	Hannan-Quinn	200.2182

Insignificant variables may now be excluded from the model.

Estimation 3

Model 3: OLS, using observations 1-57

Dependent variable: perc_raised

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	1.4967	0.46808	3.1975	0.0025	***
Num_proj	−0.803817	0.341826	−2.3515	0.0228	**
Updates	0.1573	0.0609626	2.5803	0.0130	**
Min_contr	0.0301201	0.0137715	2.1871	0.0336	**
target	−3.05917e-05	1.14405e-05	−2.6740	0.0102	**
sq_Num_proj	0.110026	0.0369644	2.9765	0.0046	***
sq_Comments	0.000374341	1.28151e-05	29.2110	<0.0001	***
sq_Updates	−0.00356637	0.00176209	−2.0239	0.0486	**
sq_Min_contr	−2.67633e-05	1.36605e-05	−1.9592	0.0559	*

Mean dependent var	2.329489	S.D. dependent var	5.204863
Sum squared resid	61.19036	S.E. of regression	1.129070
R-squared	0.959666	Adjusted R-squared	0.952943
F(8, 48)	142.7561	P-value(F)	8.93e-31
Log-likelihood	−82.90124	Akaike criterion	183.8025
Schwarz criterion	202.1899	Hannan-Quinn	190.9485

After exclusion of insignificant variables the final estimated model is written in the following equation.

$$y = 1.4967 - 0.803817\, x_3 + 0.110026\, x_3^2 + 0.000374341\, x_6^2 + 0.1573\, x_7 - 0.00356637\, x_7^2$$
$$+ 0.0301201\, x_8 - 2.67633\text{e-}05\, x_8^2 - 3.05917\text{e-}05\, x_9 + u$$

Before making any conclusions, the model needs to be verified first.

4.2.4 Verification of the estimated model

In this case three out of four types of verification will suffice – economical, statistical and econometric. There is no need of mathematical verification, since calculation was made by software.

Economic interpretation and verification

Number of projects – there are two parameters explaining the influence of this variable. Linear parameter indicates, that when the number of creator's projects increase by one, the percentage of money raised decrease by 0.8, ceteris paribus. Squared parameter indicates, that when the number of creator's projects increase by one, the percentage of money raised increase by 0.11, ceteris paribus. It means that with an increase by 1 project, the percentage of money raised will decrease by 0.8 and increase by 0.11, which means a decrease by 0.69 percent. From 1 to 4 projects the percentage of money raised will decrease more and more. From 4 to 7 projects it still decreases the percentage of money raised, but by lower and lower percentage. From 8 projects it increases the money raised in a campaign more and more with every next project. In the chart below the change in percentage of money raised in dependence on the change of the number of projects (x-axis) is represented by the line.

Figure 9: Dependence of percentage of money raised on the number of projects

56
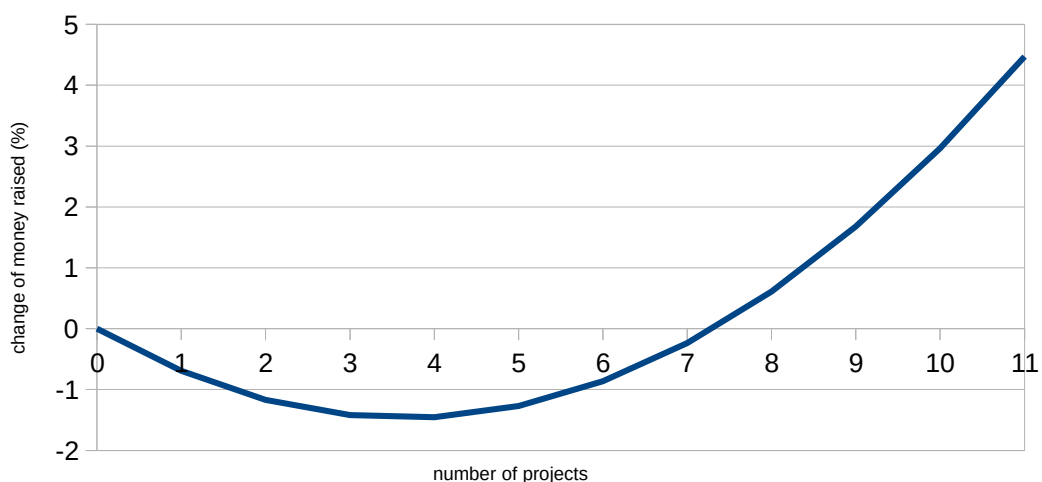
From the perspective of economic verification, it means that people tend to give more money to a campaign, whose author have already launched 8 projects, and with each next project this tendency strengthens. People tend to give less money to a campaign whose author have launched less than 7 projects. It is not a surprise that people have more reliance in more experienced authors. Therefore the parameter is considered as verified.

Comments – the parameter of the variable representing the number of comments is squared, it means that with growing number of comments the change of money raised increases. Three more comments increase the money by 0.003 %, while 20 more comments increase the money by 0.15 %, ceteris paribus. The following chart shows the line of the change in dependence on the change of number of comments. The last number of comments in the chart is 313, which is the biggest number of comments amongst the campaigns with an increase by 36.7 % of money raised.

Figure 10: Dependence of percentage of money raised on the number of comments
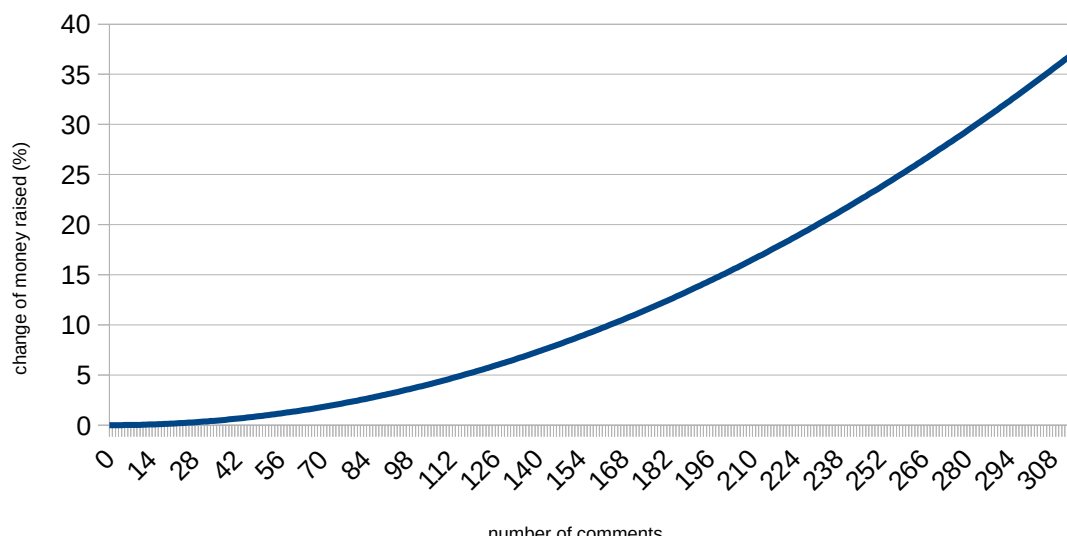
From the perspective of economic verification the parameter means that the more comments a campaign gets, the more the percentage of money raised during the campaign increase. It agrees with the assumption, that comments help a campaign to get attention, therefore to get more and more money. The parameter is considered as verified.

Updates – there are again two parameters for the variable representing the number of updates – for the linear variable and the squared one. As can be seen below in the charter, with growing number of updates the percentage of money rates increase till 22 updates. There is a point of maximal benefit with an increase of 1.73 percent, from which the extra

percentage of money raised decrease. The biggest number of updates amongst the campaigns is 39, but if the number would reach 44, such or bigger number of comments would be contra productive for the campaign according to the model.

Figure 11: Dependence of percentage of money raised on the number of updates
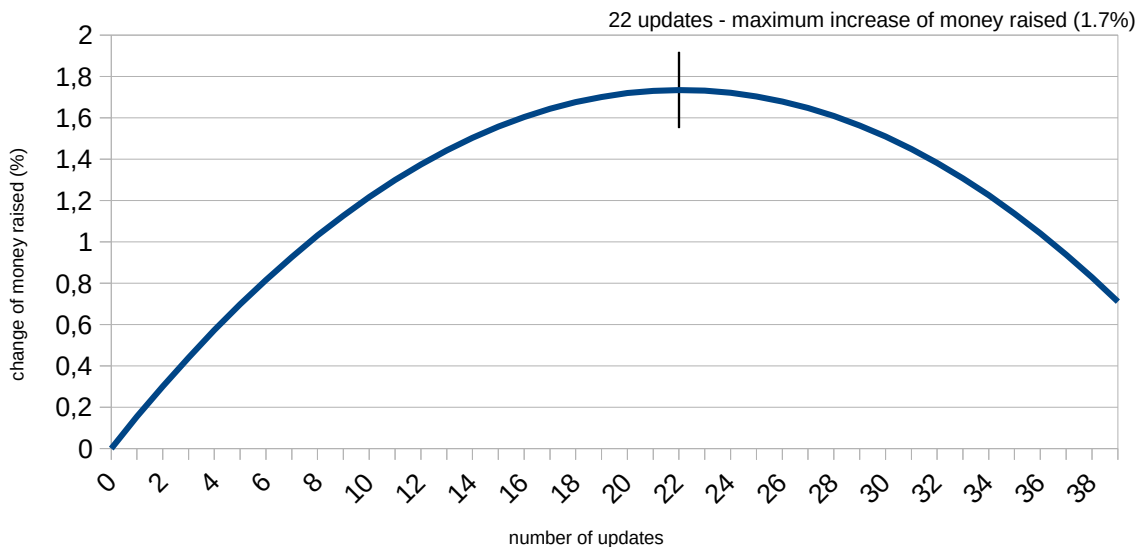
In another words, the more updates posted, the more percent of money raised until 22 updates. From 22, the more updates posted, the less extra money, until 44 updates, which become actually contra productive more and more with each extra update. Considering the fact, that people appreciate updates on a topic they are interested in, but they can become overwhelmed when there is too much of it, the parameter can be considered as verified.

Minimal contribution – similar as the parameter above, there are two parameters of the variable representing minimal contribution. There is a linear form of the variable and a squared form. The line of change of percentage of money raised in dependence on minimal contribution is shaped alike the line in dependence on the number of updates. The higher the minimal contribution is, the more extra money is raised, until the point of maximal benefit. The point is at 562 USD and increase the percentage of money raised by 8.5. From that point the increase of money is lower and lower, until the minimal contribution of 1000 USD, which is the highest minimal contribution amongst the campaigns. If there were higher minimal contributions, the increase of money would be lower until the contribution

of 1125 dollars, which is on the border of contra productivity, because it increases the money by 0 %. Higher contributions than that would decrease the money raised.

Figure 12: Dependence of percentage of money raised on the minimal contribution
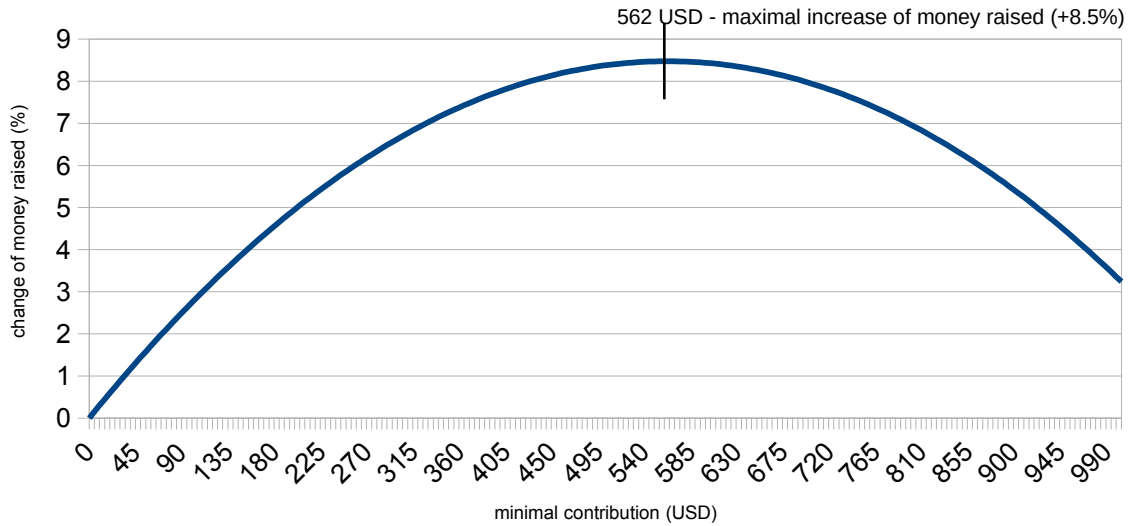
In another words, it is beneficial to increase the minimal contribution, but only to the amount of 562 USD. From the perspective of economic verification, it is presumably, that setting higher minimal contribution will help to get more money, because when comes to startups, the amount of money is usually in tens of dollars, therefore people are willing to send a little more. But when it comes to hundreds of dollars, in specific 562 USD, people start to be more cautious, and when it comes to thousands, from 1125 USD people cease to send money to such a campaign. The parameter is considered as verified.

Target amount of money – the variable representing the target amount of money is linear and consequently its parameter can be interpreted easily. When the target amount increases by 1 dollar, the percentage of money raised decreases by 0.00003 %, ceteris paribus. The trend line of the influence on percentage of money raised is linear, as can be seen in the chart below.

Figure 13: Dependence of percentage of money raised on the target money
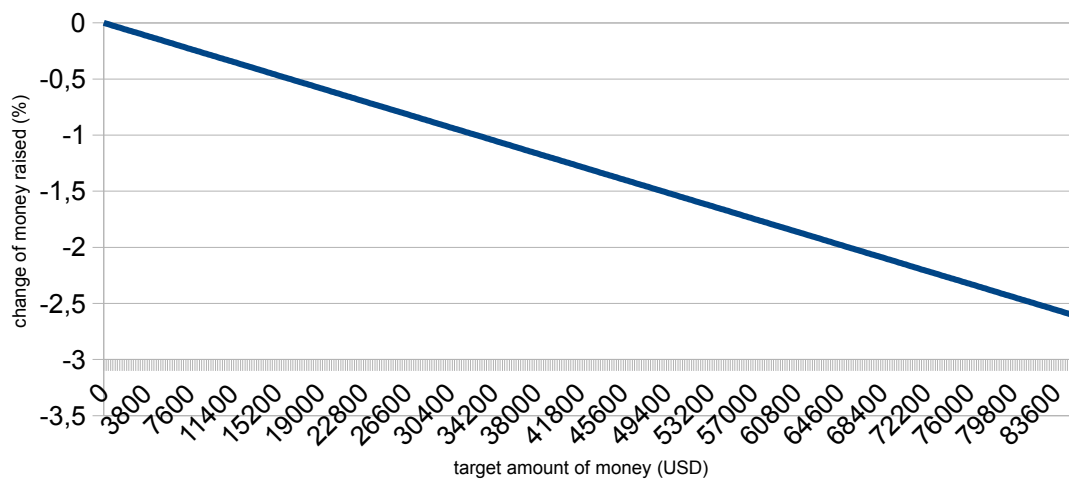
In terms of economic verification, higher target amount might be less interesting for potential contributors and therefore the higher target amount is the less money is raised. The parameter is considered as verified.

Statistical verification

The estimated model is tested for its statistical significance and other statistical data.

The coefficient of determination of selected estimated model is 0.959, in another words the changes in percentage of money raised is explained by changes of selected variables from 95.9 %. The adjusted coefficient is 0.953, it means that the model matches the data from 95.3 %. Little difference between coefficient and its adjusted form indicates sufficient number of observations in proportion to the number of variables. From all the estimated models, the selected one has the highest adjusted coefficient of determination, therefore it is confirmed as the best one.

F-test: p-value is 8.93e-31, which is lower than selected level of significance, therefore the hypothesis of insignificance is refused. The model as a whole is considered as statistically verified.

Tests of statistical significance of particular parameters brought following conclusions:

Variables Video, English and Length of the campaign were evaluated as insignificant on a 90% level as their test values were higher than selected level of significance 0.1. That is why they were excluded from the model.

In the final model, all of the variables are evaluated as statistically significant on a 90% level as their test values are lower than selected level of significance 0.1.

The following hypotheses are confirmed:

Number of campaign's author's projects is significant for the percentage of money raised during the campaign.

Number of updates posted during a campaign is significant for the percentage of money raised during the campaign.

Number of comments posted during a campaign is significant for the percentage of money raised during the campaign.

The amount of minimal contribution is significant for the percentage of money raised during the campaign.

The campaign's target amount of money is significant for the percentage of money raised during the campaign.

Econometric verification

As the model is static, only two tests are performed – test of heteroscedasticity and test of normality of residuals.

```
Breusch-Pagan test for heteroscedasticity
OLS, using observations 1-57
Dependent variable: scaled uhat^2

                 coefficient    std. error    t-ratio    p-value
  -------------------------------------------------------------
  const            0.335230      0.629270      0.5327     0.5967
```

```
    Num_proj        -0.00635413    0.459539      -0.01383     0.9890
    Updates          0.164333      0.0819559      2.005       0.0506   *
    Min_contr        0.0210954     0.0185139      1.139       0.2602
    target          -2.16801e-05   1.53801e-05   -1.410       0.1651
    sq_Num_proj     -0.000220697   0.0496937     -0.004441    0.9965
    sq_Comments     -2.26207e-06   1.72281e-05   -0.1313      0.8961
    sq_Updates      -0.00313983    0.00236890    -1.325       0.1913
    sq_Min_contr    -2.13121e-05   1.83647e-05   -1.160       0.2516


    Explained sum of squares = 19.7269


Test statistic: LM = 9.863455,
with p-value = P(Chi-square(8) > 9.863455) = 0.274741
```

The p-value of the test is 0.27. By crossing the level of 0.05 the hypothesis of absence of heteroscedasticity is not refused. There is a homoscedasticity in the model.

Normality of residuals test
```
Frequency distribution for uhat7, obs 1-57
number of bins = 7, mean = 2.96059e-16, sd = 1.12907


        interval           midpt     frequency    rel.      cum.


            < -2.3926    -2.8324         1        1.75%     1.75%
    -2.3926 - -1.5131    -1.9529         2        3.51%     5.26% *
    -1.5131 - -0.63365   -1.0734        12       21.05%    26.32% *******
   -0.63365 -  0.24583   -0.19391       20       35.09%    61.40% ***********
    0.24583 -  1.1253     0.68557       15       26.32%    87.72% *********
    1.1253 -   2.0048     1.5651         5        8.77%    96.49% ***
        >=   2.0048       2.4445         2        3.51%   100.00% *


Test for null hypothesis of normal distribution:
Chi-square(2) = 1.542 with p-value 0.46265
```

The p-value of the test is 0.46. By crossing the level of 0.05, the hypothesis of normal dispersion of residuals is not refused. Residuals are normally dispersed.

The model is economically verified in terms of homoscedasticity and normality of residuals.

Multicollinearity

There was a multicollinearity detected between linear and squared variables. But as all of the variables' parameters are statistically significant and economically verified, multicollinearity is therefore ignored.

5 Results and Discussion

Based on the estimated model, following results and recommendations are deduced.

5.1 General conclusions

Significance of various attributes on a campaign's success were tested. As the model estimation showed, following attributes are evaluated as significant.

Number of projects

Each startup on kickstarter.com shows, how many projects particular author has launched before. The model estimation revealed that it has a significant influence on a campaign's success, in specific – on the percentage of money raised from the target amount. Based on the model, the highest percentage of money is raised by campaigns, whose author has already launched 7 project or more. Less experience than that is harmful for the campaign's success. It could lead to less trust from contributing people and also be the cause of ineffective campaign because of little experience of the author.

Number of comments

Every startup on kickstarter.com has a section for comments. The model confirmed, that the dependence of the percentage of money raised on the number of comments is significant. Based on the model, the more comments a campaign gets, the higher percentage of money is raised. The reason is that a campaign with a lot of comments attracts attention and therefore money on one hand, on the other hand it is the people contributing with money, who often write comments. Anyhow, comments are inseparably associated with a campaign's success.

Number of updates

Startups on kickstarter.com can inform their supporters or potential supporters about the changes or progress in their project by updates. In helps to assure the supporters that somebody is working on it. The model estimation confirmed, that it is significantly beneficial to use updates and essential for a campaign's success. But also it was revealed, that too many updates can be contra productive. The point of maximal benefit is at 22 updates during a campaign due to the model.

Minimal contribution

Each campaign sets the minimal contribution. It was revealed, that to increase the minimal contribution is one of the most significant opportunities to raise more money in a campaign. But similar to the updates, too high minimal amount can be contra productive. The optimal benefit is at 562 USD due to the model.

Target amount of money

The target amount of money, or goal, is the key attribute that every campaign must think through very well. During the econometric modelling it has been revealed, that the higher target is set, the lower percentage of money is raised. Therefore it is better to set lower target to increase the chance to accomplish the required 100 % or more.

The attributes mentioned above are confirmed as significant, while the following attributes are evaluated as insignificant for a campaign's success.

Video promotion

Most of the campaigns use the option to promote their project in a video. There are few that does not post any video, but the model showed it is not significant for the percentage of money raised. The reason is that the model tested the presence of a video, not the quality of it. In another words, a bad video can harm the campaign more than no video at all.

English

Most of campaigns used in the econometric modelling are in English. Only few are in a different language and the model estimation showed it is not significant for the percentage of money raised. There are only three campaigns in other language than English, two of them were unsuccessful and raised less than 13 %, the third one raised 100,4 %. So from this perspective, English seems quite important for a campaign's success, but because there were only three of them, it was not confirmed by the model estimation in terms of the percentage of money raised.

Length of campaign

Length of campaign might seem determining for the money raised, but the model revealed it is not significant for the percentage from the target amount. As campaigns of all different length were in part successful and in part unsuccessful.

5.2 What makes a campaign successful

Campaigns included in the research were divided into successful and unsuccessful ones in order to compare them in terms of particular attributes. The averages of attributes are in the following chart.

Figure 14: Comparison of successful and unsuccessful campaigns
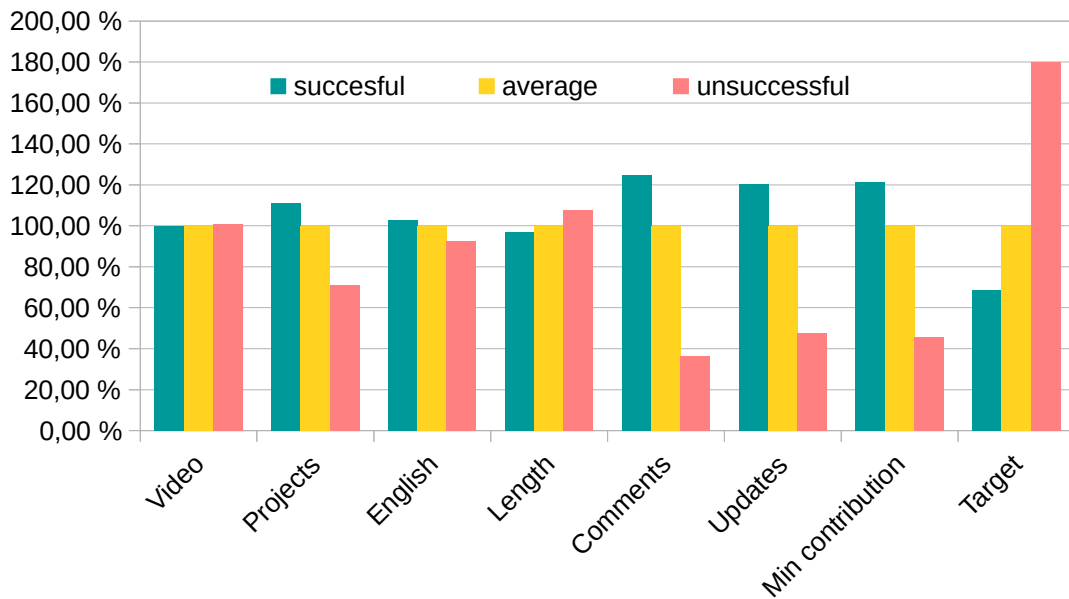
As can it be seen, values in categories of Video, English and Length are comparable to each other. It means that the averages of these attributes among both successful and unsuccessful campaigns are almost the same.

The biggest differences in values are in categories of Target and Comments. But using the econometric modelling it was revealed, that the most significant attributes for the percentage of money raised are Number of comments and Number of projects, even though the values of Projects are not as dispersed as values of other categories, the model estimation showed the most significant influence of their squared values. The significance of Number of updates and the Target amount is similar, while the lowest significance was revealed that of Minimal contribution.

To reveal the cause of campaigns' failure, average values are compared in the following table.

	Projects	Comments	Updates	Minimum	Target
successful	1,8537	18,098	6,4634	33,632	5.661,79
unsuccessful	1,1875	5,375	2,5625	12,673	14.824,38

Average target amount of money among successful campaigns is only 5,660 USD, while the average among unsuccessful campaigns is more than 14,800 USD, that is more than twice as much. Minimal contribution is among unsuccessful campaigns only around 12 dollars, while the successful ones has almost three time higher minimal contribution. Number of updates is also more than twice higher and number of comments more than three times higher. These are the main causes of the campaigns' failures.

5.3   Recommendations for new campaigns

Based on the literature research and the econometric modelling where data from kickstarter.com were used, following recommendations can be used when starting a new startup campaign.

1. It is important to set an achievable target amount.

One of the most common causes of a campaign's failure is that the target amount was too high. The unsuccessful campaigns, which raised less money than 100 %, have much higher target amount than the successful ones. One third of campaigns that had a goal higher than 10,000 USD fails. When setting a target amount, remember, lower is better.

2. If it is possible to start a campaign with someone who have launched a lot of campaigns before, it is worthwhile

The more projects someone launched, the higher chances to raise more money. It is both the experience which will help and also, people tend to support such a campaign more.

3. Minimal contribution is a tool to raise more money

It is one of the tools that can be used to raise more money in a campaign. Higher minimum should help to raise more money, but it is limited – around 560 dollars might be a point of maximal possible benefit. Higher minimum than that might be useless.

4. Updates are necessary, but too many of them is not.

Unsuccessful campaigns post few updates or none. Successful campaigns use the option to post updates and their chances to raise more money increase. People appreciate new information and campaign's active work. But it is limited again – approximately 22 updates might be optimal. More than that could be contra productive.

5. People's attention is essential

Successful campaigns have comments. If a campaign does not have any comments or only a few, it is a signal that people are not so much interested in it. Therefore it might be helpful to make the campaign more visible or maybe improve the promotional video. If there are no comments or few of them, it is likely that you will not achieve 100 %. If you have a lot of comments, it is likely that you will not only achieve your goal, but raise even more money than 100 or 200 %.

5.4   Discussion

The model estimated in the thesis can be used to predict a campaign's success or failure. More important and useful is the information that comes from the process of econometric modelling. New creators of their first campaign might want to set a high target and therefore not succeed, the recommendation says how important it is to set an achievable target and therefore increase the chance to succeed.

Results of this thesis correspond with Mollick – The dynamics of crowdfunding: exploratory study mentioned in Literature review. Study findings suggest that personal network is associated with the of crowdfunding campaign. This statement is confirmed in thesis since authors, who already launched several campaign were more successful than creators with first campaign. The reasons are experience and personal network. Anyone who plans to start a campaign should look at successful campaigns and learn the maximum from it first.

Findings from paper Gender Dynamics in Crowdfunding (Kickstarter): Evidence on Entrepreneurs, Investors, Deals and Taste-Based Discrimination were confirmed by percentage representation of female as well success rate compared to men authors. Dataset was compiled from 28,4 % by female authors and their rate success is around 76,4%.

For further research, another platform than kickstarter might be used to collect data and the results might be compared. Also, different topics of campaigns could be compared, if there is a difference between them. For such a purpose, the database should have to be much bigger.

6 Conclusion

The goal of the thesis was to compare selected startup campaigns. Based on the literature research, data were collected from a startup website kickstarter.com.

From the collected data, 57 campaigns were selected for the analysis via econometric modelling. The process of econometric modelling enabled the identification of criteria that are essential for a campaign's success. The model estimation revealed a significance of 5 factors.

One of the most critical tools is to set an achievable target amount of money. It was confirmed as a significant variable by the model estimation. In the analysis it was revealed, that campaigns which fail had much higher average target amount than campaigns which succeeded. The model estimation also confirmed the significance of how many projects the author have already launched before. In another words, the chance to achieve 100 % of money raised in the campaign increases with previous experience with another startup campaigns. Another verified important factor in terms of a campaign's success is the number of comments. It is clear that without people's attention campaigns fail. It is the comments that represents how many people are interested in a campaign and the comments also help to get more attention from other people. Then there is a tool of minimal contribution which can help a campaign to raise much more money. Due to the model, higher minimum contribution leads to higher percentage of money raised, therefore to higher chance to achieve at least 100 %. The only condition is not to set up too high minimum contribution, as at the point of 562 USD as minimal contribution there is the maximal potential benefit. Higher minimum than that is not helpful anymore. The last tool confirmed as significant is the number of updates posted during a campaign. According to the model, updates are very helpful for a campaign, but it is important not to overuse it, in specific to post at maximum 22 updates.

It has been revealed, that the length of a campaign is not important for its success. Also it is not important if a campaign has a video or not. Much more important is whether the video is good or not.

The most important thing to prepare well before starting a startup campaign is definitely the purpose of it. Once the idea itself is created, a campaign can be started. The thesis was focused on the quantifiable attributes, through which the chances for success can be increased.

7   References

Belleflamme, Paul and Lambert, Thomas and Schwienbacher, Armin, *Crowdfunding: Tapping the Right Crowd.* Journal of Business Venturing, 2014, 29(5), 585-609 Available at SSRN: https://ssrn.com/abstract=1836873 or http://dx.doi.org/10.2139/ssrn.1836873

Businessangels.com.au. (2017). *Business Angels - About Business Angels*. [online] Available at: https://businessangels.com.au/about.php [Accessed 5 Jan. 2017].

Cremades, A. (2016). *The Art of Startup Fundraising: Pitching Investors, Negotiating the Deal, and Everything Else Entrepreneurs Need to Know*. (ISBN: 978-11-191-9183-4) Wiley.

Čechura, L. (2009). *Cvičení z ekonometrie. (ISBN: 978-80-213-2405-3)* V Praze: Česká zemědělská univerzita, Provozně ekonomická fakulta.

Crowdcube.com. (2017). *How To Invest | Crowdcube - Follow our guides on investing your money in crowdfunding*. [online] Available at: https://www.crowdcube.com/investing-your-money [Accessed 17 Feb. 2017].

Czechinvest.org. (2017). *Business Angels*. [online] Available at: http://www.czechinvest.org/business-angels [Accessed 12 Jan. 2017].

Czechinvest.org. (2016). *Fáze vývoje firmy*. [online] Available at: https://www.czechinvest.org/cz/Sluzby-pro-male-a-stredni-podnikatele/Chcete-dotace/OPPI/Vyuziti-novych-financnich-nastroju/Faze-vyvoje-firmy [Accessed 4 Jan. 2017].

EBAN - The European Trade Association for Business Angels, Seed Funds and Early Stage Market Players. (2017). *Home - EBAN - The European Trade Association for Business Angels, Seed Funds and Early Stage Market Players*. [online] Available at: http://www.eban.org [Accessed 2 Jan. 2017].

Entrepreneur. (2017). *The Basics of Crowdfunding*. [online] Available at: https://www.entrepreneur.com/article/228125 [Accessed 12 Jan. 2017].

Experiment - Moving Science Forward. (2018). *Crowdfunding Platform for Scientific Research*. [online] Available at: https://experiment.com/ [Accessed 7 Mar. 2017].

Forbes.com. (2017). *Forbes Welcome*. [online] Available at: https://www.forbes.com/sites/chancebarnett/2013/09/09/donation-based-crowdfunding-sites-kickstarter-vs-indiegogo/#4501ed1715e0 [Accessed 2 Feb. 2017].

Gerber, E. and Hui, J. (2013). Crowdfunding: Motivations and Deterrents for Participation. *ACM Transactions on Computer-Human Interaction*, 20(6), pp.1-32.

Hampel, D., Blašková, V. and Střelec, L. (2016). *Ekonometrie 2. 3rd ed. (ISBN: 978-80-7375-664-2)* Brno: Mendelova univerzita.

Harvard Business Review. (2017). *How Venture Capital Works*. [online] Available at: https://hbr.org/1998/11/how-venture-capital-works [Accessed 15 Jan. 2017].

Hithit. (2017). *Hithit - Co je Hithit*. [online] Available at: https://www.hithit.com/cs/article/whatIsHithit [Accessed 10 Mar. 2017].

Hogue, J. (2015). *Step-by-step crowdfunding: Everything You Need to Raise Money From the Crowd (ISBN: 978-09-962-3211-1)* Efficient Alpha.

Hooker, R. and Monas, S. (2008). Shoestring Venture: The Startup Bible *(ISBN: 978-05-955-0651-4)* New York: iUniverse.

Indiegogo.com. (2017). *Learn About Indiegogo | Indiegogo*. [online] Available at: https://www.indiegogo.com/about/our-story [Accessed 12 Feb. 2017].

Institute, B. (2016). *FFF – Family, Friends, Fools - Business Angel Institute*. [online] Business Angel Institute. Available at: http://businessangelinstitute.org/fff-family-friends-fools/ [Accessed 27 Dec. 2016].

Interactive, M. (2017). *Czech Private Equity and Venture Capital Association - CVCA.cz*. [online] Cvca.cz. Available at: http://www.cvca.cz/cs [Accessed 8 Jan. 2017].

Kickstarter.com. (2017). *About — Kickstarter*. [online] Available at:
https://www.kickstarter.com/about?ref=global-footer [Accessed 15 May 2017].

Knipp, K. (2017). *Benefits and drawbacks of crowdfunding - The BigCommerce Blog*.
[online] The BigCommerce Blog. Available at:
https://www.bigcommerce.com/blog/benefits-and-drawbacks-of-crowdfunding/ [Accessed
12 Apr. 2017].

Lowenstein, R. (2004). *Origins of the crash: the great bubble and its undoing. (ISBN: 978-
15-942-0003-8)* New York, N.Y.: Penguin.

Marom, Dan and Robb, Alicia and Sade, Orly, *Gender Dynamics in Crowdfunding
(Kickstarter): Evidence on Entrepreneurs, Investors, Deals and Taste-Based
Discrimination* (February 23, 2016). Available at
SSRN: https://ssrn.com/abstract=2442954 or http://dx.doi.org/10.2139/ssrn.2442954

Mollick, Ethan R., *The Dynamics of Crowdfunding: An Exploratory Study*. Journal of
Business Venturing, Volume 29, Issue 1, January 2014, Pages 1–16. Available at
SSRN: https://ssrn.com/abstract=2088298 or http://dx.doi.org/10.2139/ssrn.2088298

nibusinessinfo.co.uk. (2017). *Advantages and disadvantages of crowdfunding*. [online]
Available at: https://www.nibusinessinfo.co.uk/content/advantages-and-disadvantages-
crowdfunding [Accessed 15 Apr. 2017].

Oxford Dictionaries | English. (2016). *crowdfunding | Definition of crowdfunding in
English by Oxford Dictionaries*. [online] Available at:
https://en.oxforddictionaries.com/definition/crowdfunding [Accessed 17 Dec. 2016].

Ries, E. (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation
to Create Radically Successful Businesses.(ISBN: 978-03-078-8789-4)* New York: Random
House USA Inc.

Search.proquest.com. (2017). *Social motivation and credibility in crowdfunding -
ProQuest*. [online] Available at:
https://search.proquest.com/openview/d1140829971035e578032d6ee36c0aea/1?pq-
origsite=gscholar&cbl=18750&diss=y [Accessed 10 Mar. 2017].

Startups, B. (2017). *Beyond the Bank Loan: 6 Alternative Financing Methods for Startups*. [online] Business News Daily. Available at: http://www.businessnewsdaily.com/1733-small-business-financing-options-.html [Accessed 19 Jan. 2017].

Steinberg, D. (2012). *The kickstarter handbook: real-life success stories of artists, inventors & entrepreneurs. (ISBN: 978-15-947-4608-6)* Philadelphia: Quirk Books.

Steinberg, S., Kimmich, J. and DeMaria, R. (2008). *The Crowdfunding Bible: How To Raise Money For Any Startup, Video Game Or Project. (ISBN 978-11-057-2628-6)* Lulu.com

The Balance. (2017). *The Evolution of Crowdfunding (It's Not as New as You Think)*. [online] Available at: https://www.thebalance.com/what-is-donation-based-crowdfunding-985101 [Accessed 5 Mar. 2017].

The Balance. (2017). *Learn About Rewards-Based Crowdfunding and Why It's So Popular*. [online] Available at: https://www.thebalance.com/what-is-rewards-based-crowdfunding-985103 [Accessed 13 Jan. 2017].

The Crowd Cafe. (2017). *Crowdfunding Motivations — What Drives People to Invest?*. [online] Available at: http://www.thecrowdcafe.com/crowdfunding-motivations [Accessed 8 Feb. 2017].

Ulule. (2017). *Ulule - The 1st European crowdfunding site*. [online] Available at: https://www.ulule.com/ [Accessed 19 Feb. 2017].

Watch, C. (2017). *Crowdfunding Your Startup? 3 Important Trends to Watch*. [online] Business News Daily. Available at: https://www.businessnewsdaily.com/7506-crowdfunding-trends-tips.html [Accessed 9 Jan. 2017].

Young, T. (2013). *The everything guide to crowdfunding: learn how to use social media for small-business funding : understand crowd psychology : gain an online presence : create a successful crowdfunding campaign : promote your campaign to reach hidden funding sources. (ISBN: 978-14-405-5033-1)* Adams Media Corporation

Zopa.com (2017). *Microfinance, Crowdfunding or Peer-to-peer lending? | Zopa Blog*. [online] Zopa Blog. Available at: https://blog.zopa.com/2010/10/25/microfinance-crowfunding-or-peer-to-peer-lending [Accessed 9 Feb. 2017].

Zwilling, M. (2017). *8 Best Practices to Seek Funding From Friends, Family and Fools*. [online] Entrepreneur. Available at: https://www.entrepreneur.com/article/246404 [Accessed 13 Jan. 2017].

8 Appendix

Data collected from kickstarter.com

perc_raised	raised	Video	Num_proj	English	Length	Comments	Updates	Min_contrtarget
0	0	0	1	1	31	0	0	24,9243738,6
0	0	1	1	1	31	0	0	6,231311,55
0	0	1	1	1	37	0	0	38,064567,2
0,0158	840	1	1	1	37	4	4	1,062953145
0,019	61	0	1	0	61	0	0	1,06293188,7
0,0285	100	1	2	1	41	0	4	103500
0,055	209	1	1	1	40	0	0	7,6123806
0,0866	260	1	3	1	59	1	0	103000
0,1033	329	1	1	1	31	0	0	10,6293188,7
0,129	538	1	1	0	60	0	0	4,914173,5
0,1493	4479	1	1	1	32	2	3	2530000
0,2102	2825	1	1	1	31	1	4	2,2413440
0,2885	4328	1	1	1	29	0	2	215000
0,4083	34719	1	1	1	31	31	6	26,572585032
0,6147	5286	1	1	1	42	19	14	12,4628598,78
0,7128	1782	0	1	1	46	26	4	202500
1,0037	5003	1	1	1	35	1	7	12,4624984,8
1,004	8537	1	1	0	43	0	2	1,06298503,2
1,02	875	1	1	1	39	0	0	7,145857,4
1,022	25550	1	1	1	60	1	7	525000
1,0223	8281	1	1	1	36	14	11	12,4628100,3
1,0243	10243	1	3	1	31	0	8	610000
1,029	5145	1	1	1	37	4	3	55000
1,0311	25700	1	1	1	35	5	5	1,246224924
1,04	3574	1	1	1	56	3	4	0,9823437
1,0477	11001	1	1	1	36	0	5	1010500
1,055	3165	1	1	1	46	9	0	23000
1,094	682	0	2	1	31	3	2	1,2462623,1
1,0984	2759	1	1	1	38	1	4	3,8062511,96
1,115	903	1	1	1	61	0	4	6,231810,03
1,1765	4118	1	1	1	31	0	5	103500
1,2353	4618	1	1	1	31	0	4	12,4623738,6
1,3074	6537	1	1	1	30	0	1	105000
1,3254	20782	1	1	1	36	1	6	3,3615680
1,486	926	1	1	1	31	0	8	3,7386623,1
1,605	2000	0	1	1	31	3	2	7,47721246,2
1,6515	7267	1	4	1	31	20	6	24400

1,716	1069	0	7	1	31	10	4	3,7386623,1
1,924	4810	1	1	1	31	0	3	102500
2,116	1582	1	3	1	36	17	6	3,7386747,72
2,1446	12009	1	1	1	13	15	2	6,725600
2,1714	1894	1	2	1	33	3	39	6,231872,34
2,1788	32682	1	1	1	32	11	14	1515000
2,204	2204	1	1	1	31	0	4	11000
2,425	4850	1	1	1	32	3	1	202000
2,4667	37001	1	4	1	59	28	4	2515000
2,8156	8447	0	2	1	32	5	15	253000
3,385	1185	0	1	1	31	0	2	1350
3,6926	27610	1	1	1	31	8	7	6,2317477,2
3,7777	1299	0	1	1	31	4	10	0,7644343,98
4,004	765	1	1	1	41	8	8	11,466191,1
4,0854	20427	0	1	1	35	15	0	10005000
4,4	1005	1	1	1	31	3	0	72,314228,36
6,0685	85372	1	1	1	39	77	7	3,51714068
6,615	7031	0	10	1	31	0	2	41,45311062,9
8,6582	34633	1	6	1	31	157	24	14000
38,7178	411531	1	3	1	43	313	19	1,062910629