# The Initiator Perspective: Success Factors in Reward Based Crowdfunding Projects

A quantitative study within the creative industries

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Abstract: Crowdfunding has attracted a lot of attention and the existing literature landscape has made attempts to grasp the very diverse and dynamic nature of the phenomenon. However, the field remains still guite unexplored and studies related to specific industries are rare. This study aims at bridging the existing literature gap for the creative industries by creating a set of guidelines regarding the success factors of reward based crowdfunding for the creative project initiator. The study adopts a quantitative method design using a logistic regression model, extending on previous scholars' work (Mollick, 2014; Müllerleile and Joenssen, 2014). In this design, success is coded as a dichotomous outcome and different independent variables are used as potential predictors of funding success. The study extends on existing literature, which is mainly focused on American multipurpose platforms, by analysing the Swiss platform wemakeit, a reward based crowdfunding platform with a focus on the creative industries, as a source for data collection. It verifies and analyses previously established predictors of success and furthermore generates additional insights into the dynamics of crowdfunding. The findings of the empirical analysis of the study lead to the development of a new conceptual model of factors influencing funding success. This model contributes to and further develops existing theoretical frameworks by underlining the importance of audience increasing factors, such as a broad range of reward categories and the availability of project descriptions in more than one language. Furthermore, the model pinpoints the importance of the perceived feasibility of a crowdfunding project, supported by frequent news updates and a realistic funding goal, in order to ensure backers' support and achieve funding success.

Keywords: Crowdfunding, Reward Based Crowdfunding, Success Factors, Creative Industries, Initiator Perspective

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# List of Abbreviations

AON	all or nothing
CHF	Swiss Franc
EPV	estimates per variable
ESD	extreme studentized deviation
EU	European Union
FB	Facebook
GDP	gross domestic product
KIA	keep it all
MAD	median and median absolute deviation
OLS	ordinary least squares
SME	Small and Medium sized Enterprises
UNESCO	United Nations Educational, Scientific and Cultural Organization
€	Euro

### 1. Introduction

The following section will introduce the topic and research question of this study and will further illustrate its contribution to the empirical, theoretical and methodological field. It will then focus on the managerial relevance of the research conducted before giving an overview of the structural outline of this study.

1.1. Topic and Research Focus

The lack of available and accessible funding has become one of the main challenges entrepreneurs and new business owners have been facing globally over the past years (Berger and Udell, 1998; Bhide, 2000; Kortum and Lerner, 2000). Traditional funding solutions aim at solving this problem by providing the entrepreneur with different funding options, with the most commonly used being bank loans for small businesses (Berger and Udell, 1998), venture capital (Gompers and Lerner, 2001), funding via business angels (Freear, et al., 1994) and public grants (Lemer, 1996). However, the global financial crisis aggregated the existing situation and minimized the chances for entrepreneurs and new business owners to secure accessible funding solutions (Wardrop et al., 2015).

As an immediate solution to these difficulties, an alternative financing market emerged including crowdfunding as a specifically funding related aspect of crowdsourcing (Wardrop et al., 2015; Schwienbacher and Larralde, 2010). Many crowdfunding platforms were created in the years following the financial crisis in 2008 and the concept evolved rapidly and expanded to different industries in all its existing variations: donation based, lending based, equity based as well as reward based crowdfunding. Although it is arguable which one of the existing types is more successful or appealing to the broader audience, they all demonstrate remarkable examples of extremely successful projects (Massolution, 2015). The growth of the crowdfunding industry has been and still is enormous and the use of crowdfunding as an alternative funding solution is expected to skyrocket in the near future, especially since the phenomenon is predicted to reach the developing countries within the next years (World Bank, 2013).

The concept behind crowdfunding, namely collecting funds for the realization of a project through private investors, is not new. However, the mechanisms of crowdfunding platforms differ from previous funding methods. Crowdfunding allows for a funding procedure performed entirely online, where investors from all over the world are able to support a project, both publicly and anonymously. Due to the importance of crowdfunding as an alternative funding method for entrepreneurs and young businesses there is an urgent need for an in depth exploration of the factors affecting a crowdfunding project's success (Mollick, 2014). When launching a crowdfunding project, a project initiator benefits from knowing which factors need to be taken into consideration in order to diversify his or her project from competition and make it more appealing to potential backers. Previous literature has been analysing crowdfunding as an alternative funding method in general and more specifically focusing on success factors in various forms of crowdfunding over the past years (Mollick, 2014; Müllerleile and Joenssen, 2014; Huili and Yaodong, 2014; Joenssen et al., 2014; Crosetto and Regner, 2014). Due to the novelty of the crowdfunding phenomenon itself, the manifold types of crowdfunding platforms, ranging from multi-purpose platforms to hybrid forms of the four established types, as well as the varying legal framework in different countries, the literature landscape on crowdfunding is highly fragmented. The majority of studies was conducted on the multi-purpose platform Kickstarter and hardly applied any industry focus. The literature gap is in particular prevalent in the creative industries where only a handful of studies are currently available with a focus on specific subcategories of the industry (Sorensen, 2015; Nagle and Roche, 2013; Boeuf et al., 2014).



Figure 1: Research Environment and Theoretical Gap

The study at hand will analyse the success factors in reward based crowdfunding in the creative industries by applying established predictors from previous literature on the platform wemakeit. By analysing an alternative platform other than the widely popular American multi-purpose platforms, the study will contribute to the existing literature landscape by testing established predictors in a new environment. This new environment is established by a distinct focus on location, industry, type of crowdfunding and project perspective. The platform serving as the basis of analysis in the study at hand operates mainly in Germany, Switzerland and Austria and therefore offers an alternative environment of analysis. In addition, the platform operates with a strong focus on projects within the creative industries. Furthermore, the platform applies a reward based model, limiting the focus of this study to success factors in this specific type of crowdfunding. Lastly, the study will concentrate on success factors and variables within the influence of the project initiator, further establishing the scope of the analysis environment.

The study will therefore generate a theoretical contribution to the existing research landscape by applying and testing previously established predictors of funding success within the new environment established by the four defining factors outlined above. The theoretical contribution will minimize the existing literature gap and will assist the potential creative entrepreneur or new business owner in his or her effort to create a successful crowdfunding campaign.

From an empirical point of view, the study will contribute by delivering additional findings on reward based crowdfunding to the existing research landscape. As crowdfunding is rapidly evolving there is a constant need for reevaluating and confirming previously established findings within a new context. Therefore, the findings will complement the existing empiricism of crowdfunding research. Methodologically, the study sources its research design, namely logistic regression following a stepwise reduction process, from previously established models within the field of research (Mollick, 2014; Müllerleile and Joenssen, 2014). It utilizes an extensive population of crowdfunding projects as well as a randomized sample to develop empirical results with a high predictive power, reliability and validity. In addition, the study's methodology carefully constructs the final regression model by a gradual reduction of predictors in order to ensure a maximum significance of the empirical findings.

#### 1.2. Empirical and Managerial Relevance

Crowdfunding is of increasing importance for the entrepreneur and new business owner in order to secure successful funding (Crosetto and Regner, 2014). In addition, crowdfunding within the creative industries is widely popular and rapidly growing (Kickstarter III, 2015; Indiegogo, 2015). The factors influencing the success of a crowdfunding project vary according to the industry, type of crowdfunding, legal framework as well as location (Mollick, 2014). Therefore, it is not feasible to develop a one-size-fits-all guideline for the entrepreneur or new business owner on which factors to consider in order to launch a successful crowdfunding project. The dynamics of the crowdfunding phenomenon itself, together with the increasing importance of crowdfunding as an alternative funding method and the growth of crowdfunding within the creative industries further underline the empirical and managerial relevance of the previously established theoretical gap.

From an empirical point of view, the current literature landscape does not yet offer consistent insights on factors influencing the funding success of reward based crowdfunding projects within the creative industries, which is where this study will contribute with its findings. Previous studies aimed at identifying success factors in crowdfunding by analysing a diverse set of influencing factors on different multipurpose platforms. The study will take into account existing research as well as individual characteristics of the platform of analysis in order to establish a research and hypotheses framework of potential predictors of funding success, as further outlined in chapter 2.6. The results and insights generated by the analysis of the predictors will then modify the framework accordingly. Ultimately, the analysis aims at the development of a new conceptual model on success factors in reward based crowdfunding within the creative industries, contributing to the existing research landscape.

We are hoping to not only contribute to the existing research on success factors in reward based crowdfunding projects but to potentially offer a guideline for the creative entrepreneur or new business owner on which factors to consider when setting up a crowdfunding campaign, further underlining the managerial relevance of the theoretical gap. The platform of analysis itself, wemakeit, offers advice on which actions a project initiator can take in order to make his or her project a success. This 'help center' offers general guidelines for the project initiator such as utilizing friends and family to increase awareness or setting a realistic funding goal. The study at hand hopes therefore to complement these guidelines from an empirical point of view in order to offer additional advice for the creative crowdfunding project initiator.

1.3 Thesis Outline

Chapter 1 of the study focused on outlining the research area as well as giving an overview of the corresponding contributions the study hopes to make. It illustrated the research scope by outlining the defining factors of the analysis context and environment. The literature review in chapter 2, together with the outline of the research context in chapter 3, will then conduct an in-depth analysis of the existing literature landscape, corresponding to the four defining factors of the research scope (location, industry, type of crowdfunding, project perspective) before arriving at the theoretical gap established by these factors. Subsequently, chapter 4 will focus on the data and methodology utilized for the following statistical analysis and will motivate the choice of variables and statistical model. This section is then followed by the development process of the final logistic regression model as well as the presentation of all empirical findings in chapter 5. In chapter 6, the discussion and analysis of these findings in relation to the previously established hypotheses will be conducted after which the scope will be expanded to managerial implications and potential for future research. The study will conclude in chapter 7 by addressing the overall contribution to the research question established in chapter 2: 'Taking on the initiator's perspective: Which predictors influence the funding success of a reward based crowdfunding project within the creative industries?'

### 2. Literature Review

This section will provide a review of the existing literature on traditional funding methods before reviewing the current literature landscape on crowdfunding as an alternative funding solution, its definition, evolution and different types. It will then discuss reward based crowdfunding in more detail and its advantages for the potential entrepreneur. It will then focus on the creative industries and discuss existing research on success factors in crowdfunding. It will conclude by discussing the research question of this study and developing the corresponding hypotheses.

### 2.1 Traditional Funding Methods

Existing literature on traditional funding methods focuses mainly on four different options when it comes to funding for small businesses: small business loans, venture capital, angel investing and public grants (Berger and Udell, 1998). Each one of these funding methods has advantages and disadvantages depending on the different types of projects or businesses. The following part will briefly discuss all these funding options for small businesses in order to better illustrate how the phenomenon of crowdfunding gradually evolved as an alternative funding solution.

Small business loans, as one of the traditional funding methods for small businesses, are usually offered by commercial banks. They represent the most traditional funding method, after entrepreneur's equity and bootstrapping, and account for one of the largest sources of financing for small businesses globally (Berger and Udell, 1998). One of the method's main advantages over other funding solutions is that they allow the entrepreneur to keep full ownership of his or her firm, avoiding dilution of entrepreneurial effort (de Bettignies and Brander, 2007). However, a drawback of the method for small businesses is that these loans are recommended to be rooted in a local environment (Berger and Udell, 2002). As banks become global and more complex they tend to provide less loans to small businesses, it is therefore possible to receive funding mainly from their local banks, which are able to understand their needs and establish a tailored service for them (Berger and Udell, 2002).

Venture capital 'has evolved as an important intermediary in financial markets, providing capital to firms that might otherwise have difficulty attracting

financing' and works by 'financing these high-risk, potentially high-reward projects, purchasing equity or equity-linked stakes while the firms are still privately held' (Gompers and Lerner, 2001, p.145). Although the method has attracted a lot of interest in entrepreneurial circles, it is mainly concentrated on specific industries such as software, telecommunications and biotechnology (de Bettignies and Brander, 2007). Venture Capital firms contribute quantitatively much less to the entrepreneurial financing procedure than commercial banks (de Bettignies and Brander, 2007). In 2013, private equity investment reached a total €35.7 billion in nearly 5,089 European businesses and €3.4 billion of this amount were venture capital investments in 3,034 companies (European Private Equity and Venture Capital Association, 2014). A decreasing pattern in the total venture capital investment as part of the GDP was observed both for the European Union and the Euro area since the beginning of the financial crisis, between the years 2008 and 2013 (European Private Equity and Venture Capital Association, 2014). However, a recent study shows that this trend might have been overcome in parts already since Europe saw a 19% rise in capital invested and 6% rise in the number of deals in 2013 (Ernst and Young, 2014).

From an entrepreneurial perspective, one of the main advantages of this method is that, except from financial assistance, it provides the entrepreneur with additional managerial contributions to the venture (de Bettignies and Brander, 2007). However, since Venture Capital firms usually operate through fund-based investment, the screening procedures in order to identify the ideal candidates for the available funds are in general rather fast, strict and highly complex (Hall and Hofer, 1993; Ian et al., 1987).

On the other hand, there is also an 'informal venture capital market which consists of a diverse set of high net worth individuals who invest a portion of their assets in high-risk, high-return entrepreneurial ventures' (Freear et al., 1994, p.109). These individuals are usually named business angels and there are multiple studies available trying to identify their special personality traits, map out their behaviour and analyse their investment criteria (Gaston and Bell, 1988; Aram, 1989; Maxwell et al., 2011). The business angels' decision making procedure on an investment is complex and uses criteria similar to the ones used by venture capitalists. These criteria refer to specific attributes of the related product, market and entrepreneur (Stark and Mason, 2004) but also other factors such as the financial expectations (Feeney et al., 1999) and the team characteristics (Paul et al., 2007).

One of the most important advantages of business angels' investment is the strong bond created between the small business and the angel (Macht and Robinson, 2009). Although the degree of 'activeness' of a business angel with

regard to a company which he or she funded might vary, business angels usually choose to actively monitor the company they invested in, participate in the board and offer professional advice and assistance (Prowse, 1998). However, a business angel investment is usually hard to generate, since in addition to the above-mentioned formal criteria business angels tend to apply informal criteria, which cannot be influenced by the entrepreneur, such as previous familiarity and personal trust (Prowse, 1998).

Finally, public grants are available for small businesses based on valuation criteria, which depend on the country specific laws and regulations. In the European Union there are certain opportunities for small businesses both on a European and a national level (Europa I, 2015). The European funds usually aim at supporting ventures with special educational, health and environmental causes (EU business, 2014). The majority of the EU budget, namely 76%, is controlled by the member states (EU business, 2014). The funding allocation follows special procedures and guidelines established by the European Union and entails complex regulations (EU business, 2014). With regard to each country, different guidelines have to be taken into account since distinct laws and procedures apply for every case. The allocation of national funds usually aims at providing special financial motives for the support of specific industries (Europa II, 2015).

This outline of the traditional funding methods available highlights the complexity and distinctness of the procedures, which need to be followed by entrepreneurs and small business owners across different countries. In most of the cases, the entrepreneur has to provide the potential funder with a detailed description of his or her venture, usually in the form of the business plan, in order to convince them about its profitability (Stark and Mason, 2004). The associated processes are usually time consuming and might never deliver the desired funding outcome (Chen et al., 2009). The global financial crisis, which began in 2008, aggravated the already intricate funding environment for small businesses (Wardrop et al., 2015). In response to this phenomenon, an alternative finance trend emerged and in a broader sense crowdfunding can be considered as a part of it (Wardrop, et al., 2015). This trend included new financial instruments and distributive channels that grew outside of the traditional funding system as described above and tried to minimize the complexities and shorten the access time of traditionally used funding methods (Wardrop et al., 2015). The traditional funding mechanisms are extensively analysed within the existing literature. Now 'additional research on crowdfunding is required to catch up with practice and policy since crowdfunding represents a potentially disruptive change in the way that new ventures are funded' (Mollick, 2014, p.14).

### 2.2 Evolution of Crowdfunding

Crowdfunding represents a recent solution to the extensively discussed problem of new venture financing. Although there is a broad range of literature available on the topic of traditional funding opportunities for startup companies, the field of crowdfunding in specific is still quite unexplored. Due to the novelty of the phenomenon, the highly diversified nature of the crowdfunding industry and the distinct structural differences in crowdfunding platforms, the literature within this field is highly fragmented. This fragmentation offers the opportunity to contribute to this field of study, by offering a distinct perspective on success factors in reward based crowdfunding using the initiators' approach with a special focus on the creative industries.

#### 2.2.1 Definition and Background

Crowdfunding as a relatively new way of funding for entrepreneurs and small business owners developed from the previous concepts of crowdsourcing and micro-finance (Mollick, 2014). Schwienbacher and Larralde (2010) provided a definition of crowdfunding as 'an open call, essentially through the Internet, for the provision of financial resources either in form of donation or in exchange for some form of reward and/or voting rights in order to support initiatives for specific purposes' (Schwienbacher and Larralde, 2010, p.4). Crowdfunding can in fact be considered as an 'element of crowdsourcing' (Schwienbacher and Larralde, 2010, p.6) since it only focuses on the financial aspect of it. Different types of crowdsourcing might include, for instance, participation in the product development and design, community reporting, customer to customer support and consumer product rating (Kleemann et al., 2008).

Crowdfunding emerged for the first time as an alternative form of financing projects in 2003, with the launch of a platform called ArtistShare in the United States (Freedman & Nutting, 2015). One of the very first projects promoted on the platform was the one launched by the artist Maria Schneider in her effort to release her jazz album 'Concert in a Garden' (Freedman and Nutting, 2015). However, the concept started gaining ground around 2008, when the global financial crisis severely affected the early stage enterprises' ability to generate funding in another way as outlined in the previous chapter (World Bank, 2013). In the upcoming years many crowdfunding platforms were founded with some of the most well-known global platforms being Kickstarter (2009), Indiegogo (2008), Crowdfunder (2011) and Rocket Hub (2009) (Barnett, 2013).

During the recent years, the alternative financing methods market has grown rapidly. Only in Europe it has reached a 144% increase between 2013 and 2014 (Wardrop et al., 2015). As part of the alternative financing market, the crowdfunding market has also seen a tremendous increase both in the number of transactions and the amount of raised funds. Actually, during the period 2012-2013, the number of transactions doubled in size (Barbi and Bigelli, 2015) and the amount of raised funds by companies globally reached around \$5.1 billion (Massolution, 2013). It is estimated that the market will gain roughly \$17 billion worldwide by 2015, with more than 1,000 funding organizations (De Cambre, 2014) and that it will skyrocket in the near future reaching about \$93 billion in 2025 in developing countries alone (World Bank, 2013).

Previous studies tried to explore different aspects of the phenomenon such as the broad legal (Wolfson and Lease, 2011; Wolfson, 2012), social (Lehnera and Nicholls, 2014) and economic (Belleflamme and Lambert, 2014) impact of crowdfunding in order to build a basis for its further analysis. There are a few efforts of summarizing the existing literature with Bachmann et al (2011), who created an overview of the relevant literature on peer to peer lending as well as Feller et al (2013), who gathered the available literature quantitatively, according to the different types of crowdfunding. Recently, Moritz and Block (2013) created a more extended overview of the topic by dividing it according to the initiators' (Kapitalnehmer), the backers' (Kapitalgeber) or the medium's (Intermediär) perspective.

#### 2.2.2 Types of Crowdfunding

Crowdfunding includes various structural forms with the most commonly used being donation, lending, equity and reward based crowdfunding. All these forms represent direct alternatives to traditional funding methods, which can offer more than just financial support to the project initiator (European Commission, 2015). The advantages of crowdfunding over traditional funding methods have been discussed by scholars and include faster access to the requested capital, customer loyalty and most importantly the ability to run a trial testing of the concept with the judges being its future consumers (Valanciene and Jegeleviciute, 2013; Karish and Muralidharan, 2014).

Donation based platforms, such as Crowdrise, 'place funders in the position of philanthropists, who expect no direct return for their donations' (Mollick, 2014, p.3). In contrary to other crowdfunding types, donors contribute to the project's success in order to fulfil social and intrinsic goals, such as a belief to a higher

cause. A widely popular project example for donation based crowdfunding is Barack Obama's presidential campaign in 2008 (Dushnitsky and Marom, 2013).

Lending based crowdfunding or crowdlending platforms give the initiator the alternative of raising funds for a project or for personal purposes in the form of a loan agreement, which needs to be repaid in the future in addition to a certain interest rate or in some cases also interest frees (European Banking Authority, 2015). They are considered a 'direct alternative to a bank loan' (European Commission, 2015, p.14), since the procedure of financing used is very similar. Crowdlending platforms, such as Zopa, offer loans for multiple purposes. These loans can be used not only for business expansion but also for the coverage of personal expenses such as credit card, car and wedding expenses (Zopa, 2015).

Equity based crowdfunding allows the backers of a specific project to invest in a potential business opportunity. In this type of crowdfunding, the project initiators sell a stake of their future business to its supporters. The procedure used in this case simulates the traditional methods of private equity, venture capital and business angel investing, since it actually 'matches companies with would-be angels via an internet-based platform' (European Commission, 2015, p.14). A popular example of a successful equity based crowdfunding project is the one of the platform Crowdcube. Offering its members the ability to use equity based crowdfunding, the platform was the first to prove the success rates of such a venture by using it for its own funding. More than 400 private investors supported the launch of the platform with more than £1.8 million (Crowdcube, 2015).

Finally, reward based crowdfunding gives the initiator the ability to offer a wide range of rewards in exchange for the backers' support. These rewards are tangible but not financial, include both products and services and are collected at a later point in the future (European Commission, 2015). It represents a form of 'preselling' (Mollick, 2014, p.3) and allows the company to 'gather an audience before the actual product launch' (European Commission, 2015, p.16). The platforms of this type usually work based on an 'all or nothing' (AON) or 'keep it all' (KIA) approach. An example of a highly successful reward based crowdfunding project, which gathered millions of dollars via the platform Kickstarter, is the 'Pebble Time Watch' (Kickstarter I, 2014), which has recently become the most funded project in the history of the platform (Kickstarter II, 2015). In addition to the above mentioned types of crowdfunding, several hybrid platforms offer a combination of different crowdfunding types.

Due to the structure of the platform analysed, the study will further focus on the characteristics and development of reward based crowdfunding.

#### 2.3 Reward Based Crowdfunding

After the success of the platform Artishare, reward based crowdfunding became extremely popular and the two of the most popular platforms, Kickstarter and Indiegogo, contributed significantly to its worldwide spreading. More specifically in 2014, reward based crowdfunding grew globally by 85%, it was however lending-based crowdfunding that dominated the industry raising \$11.08 billion dollars globally (Massolution, 2015).

The reward based approach offers several advantages in comparison to other methods. However, it is in the hands of the initiator to decide if it represents the best alternative for his or her individual needs. The first and most important advantage of this type is the low levels of risk involved (World Bank, 2013). All crowdfunding types involve some level of risk; nonetheless, in this case the risk is limited to the initiator not receiving any funding after the completion of the campaign. This is due to the fact that most reward based crowdfunding platforms utilize an AON approach, which restrains the initiator from receiving any funding in case the initial funding goal is not reached until the end of the campaign. These risk levels are considered minimal though, when compared to the alternative solutions of crowdlending and equity crowdfunding, since reward based crowdfunding does not require a long-term commitment with potentially high interest rates (World Bank, 2013).

Furthermore, rewards, when carefully thought out, are considered to be 'offers people cannot refuse' (Crowdfunding Pays, 2014) and they are the most important motivators for participating in a crowdfunding community (de Witt, 2012). They provide the backers with different alternatives to choose from based on their personal characteristics, background and economic status. The initiator's idea is pretested before it is turned into a product or service through this procedure. If the venture is successful, it is almost guaranteed that the product or service is going to be appealing to certain customers.

As discussed in the World Bank's (2013) report on the potential of crowdfunding, crowdfunding in general is mainly utilized in the initial phases of the funding lifecycle of a company or idea. More specifically, reward based crowdfunding can be used as a proof of concept and prototyping solution during the first stages of adoption, since it allows the community around the platform to decide which ideas are worth funding (World Bank, 2013). The report also stresses the importance of the decision on the project's capital requirements and desired funding source before choosing reward based crowdfunding as the best solution. It suggests that this type of funding is the ideal solution when the capital

requirements are relatively low and when at least a medium sized social network is available (World Bank, 2013).

Moreover, when concluding on the most suitable crowdfunding type for his or her project, the initiator has to take into consideration the different features that each one has to offer. When it comes to reward based crowdfunding, a compelling need for preorders and pretrading would urge the project initiator to prefer this type over the different options available (Gerber, et al., 2012). A need for price testing is also considered a significant factor influencing this decision, since through the reward structure available this type of crowdfunding allows the initiator to test the peak and range of pricing (Gerber et al., 2012). Finally, the project type seems to influence this decision. Reward based crowdfunding is considered to be more appropriate for projects in the creative industries, such as movies, music projects and theatre plays (Crowdfund Insider I, 2013).

#### 2.4 Crowdfunding in the Creative Industries

The terms cultural and creative industries are often used interchangeably in the literature. However, the term 'creative industries', used for the purposes of this study, is broader and encompasses all activities in the cultural industries. As a result, the creative industries include not only 'printing, publishing and multimedia, audiovisual, phonographic and cinematographic productions, crafts and design projects' but also any product or service which 'contains a substantial element of artistic or creative endeavour such as architecture and advertising' (Unesco, 2006, p.3).

The creative industries are gaining importance in the formation and development of modern economies. Recent studies show that they account for growth and job creation and contribute to fostering a cultural identity (European Commission, 2013). As a result, there is a need to further study these industries in order to understand their underlying mechanisms. As Van der Pol (2007), director of UNESCO, stated since culture and creativity gradually evolve as a driving force internationally, it is of the utmost importance to measure their impact both on the economy and the society.

The creative industries are mainly comprised of small and medium sized businesses. As a result, the businesses in these industries are facing similar external and internal challenges as most of the Small and Medium sized Enterprises (SME) belonging to other industries (Hotho and Champion, 2011). The most important external challenges are related to government regulations (Smallbone and Welter, 2001) and relative access to public and private funding options (Colombo and Grilli, 2003) and the most significant internal ones are with regard to managerial (Delahaye, 2005), structural and leadership issues (McAdam et al., 2004). However, the creative nature of the product or service offered by businesses in these industries creates a need for a separate and distinct observation method with a strong focus on the project initiator. This is due to the fact that, in the creative industries the entrepreneur's mentality and source of motivation often differ. Entrepreneurs in these industries consider acquiring creative reputation often to be far more important than economic gain (Wilson and Stokes, 2005). As a result, since the motivation behind ventures in these industries differs significantly, the approach when it comes to analysing these industries should be adjusted accordingly.

As far as crowdfunding is concerned, the projects in the creative industries paved the way for its evolution (Freedman and Nutting, 2015). Crowdfunding offers a way to improve the limited access that creative projects normally have to financing by simplifying the development of a business plan and presenting it to relevant sources of finance (DiFass, 2013). As a result, during the previous years many creative projects were created on different crowdfunding platforms in an effort to seek backers' support. Although the recent list of the highest funded projects in the history of crowdfunding includes mainly technological projects, seeking funding for the production of games and electronic devices, creative projects still represent one of the most popular project categories (Kickstarter III, 2015; Indiegogo, 2015).

Although, reward based crowdfunding is a suitable alternative funding solutions in the creative industries and is extensively used by project initiators, there is still very limited research on crowdfunding with a special focus on the creative industries. Scholars tried to shed light on the field with studies on specific subcategories of the creative industries such as journalism (Aitamurto, 2011), filmmaking (De Fillippi and Wikström, 2014; Sorensen, 2015) and theatre (Boeuf et al., 2014). Therefore, there is still a need for additional research on the creative industries as a whole.

#### 2.5 Success Factors in Reward Based Crowdfunding

Agrawal (2011) analysed the significance of factors regarding geography, location and timing when it comes to project success. However, Mollick (2014) was one of the first scholars trying to explicitly map out and explain the factors influencing a crowdfunding project's success through an exploratory, empirical study. He wanted to clarify whether 'crowdfunding successes and failures are driven by the same underlying dynamic as other forms of entrepreneurial

investment' (Mollick, 2014, p.4). In order to do so, he identified the contribution of different signs of quality in his exploratory study. He chose to work with a broad set of independent variables, including the amount of funding requested, the existence of a video, the number of comments and news updates, the presence of spelling errors and the number of backers. Further empirical studies followed, with a focus on multipurpose platforms.

Similar and new independent variables were used in the studies following Mollick's (2014) in an effort to create an overview of the factors influencing a crowdfunding project's success. Crosetto and Regner (2014) used text length, duration, project recommendation, image count, blog entries and categories whereas Frydrych et al. (2014) included variables such as reward level and founding team composition. Furthermore, both the length of the project's title and the use of an exclamation mark, were considered as two of the factors that might contribute to a project's success (Kuppuswamy and Bayus, 2014; Rakotomalala, 2015). Finally, some scholars included social factors in their studies on crowdfunding projects' success such as the existence of a link to a personal Facebook page in the project description, the number of Facebook friends or the projects previously supported by the initiator (Balboni et al., 2014; Saxton and Wang, 2013; Zvilichovsky et al., 2014).

#### 2.6 Research Question and Hypotheses Framework

The study will apply a confirmatory approach in developing a range of factors significantly influencing the success of a crowdfunding project on the platform analysed in this study, representing a focus on the creative industries. To specify the focus even further and with the hope of creating a set of guidelines for the potential entrepreneur, the study will take on the initiator's perspective. As a result, all external factors not under the influence of the project initiator are excluded by the design of the research, therefore not taking into account any actions executed by potential backers of the project.

Reward based crowdfunding projects include various project characteristics, which are under the influence of different stakeholders and span different dimensions. Hekman and Brussee (2013) consider two different dimensions, project attributes and initiator attributes, within their analytical framework. In addition, they consider the control dimension of all project characteristics, differentiating between factors under the control of the initiator and under the control of the backer (Hekman and Brussee, 2013).

Success in relation to:	Attributes Project	Attributes Initiator
Control Initiator	e.g. goal amount, category	e.g. number of projects initiated earlier
Control Crowdfunder (Backer)	e.g. number of backers, amount pledged	e.g. number of Facebook friends

Table 1: Attributes Framework by Hekman and Brussee (2013) - Own Illustration

Following this framework, the study will focus on factors within the control of the initiator in order to develop conclusions on variables influencing the success of reward based crowdfunding projects as illustrated by table 1. The study at hand will therefore take the attributes framework developed by Hekman and Brussee (2013) as the underlying framework of analysis and extend it further including two additional categories within the control of the initiator, attributes media as well as attributes external references. Hekman and Brussee (2013) included several of the factors within the two additional categories within the attributes project category. However, since both the use of media and external references have gained increasing attention in the crowdfunding research landscape (Saxton and Wang, 2013; Lu et al., 2014; Beier and Wagner, 2014; Xu, et al., 2014) and several factors of the following analysis are not accounted for in the original framework, the existing framework will be further diversified by the addition of these two categories.

Within the diversified framework, 13 potential predictors of success, derived from previous research and independently developed due to the characteristics of the platform, will build the basis for the statistical analysis as outlined in figure 2. The framework illustrates the four attribute categories of analysis, the corresponding independent variables as well as the underlying hypotheses. The hypotheses construction follows previous research in predicting the influence on funding success by a specific variable. The following outline of the hypotheses construction will give an overview of the underlying existing research and literature landscape for each attributes category. In addition, chapter 4.4 will give an in depth understanding of the statistical characteristics of each independent variable.



Figure 2: Analysis and Hypotheses Framework

#### Attributes Project H1-H6

The variables characters in title (H1) and contains exclamation mark (H2) follow the existing literature in an effort to prove if title length and relevant punctuation are able to attract backer's interest, thus leading to higher chances of success (Kuppuswamy and Bayus, 2014). Within their research on the dynamics of project backers at Kickstarter, Kuppuswamy and Bayus (2014) found that both variables had no significant impact on funding success.

The variable number of categories (H3) will be included to expand on existing literature by measuring the number of categories in which the initiator decides to feature his or her project in. By increasing the number of selected categories, the initiator might potentially increase the project's target audience, leading to a positive causal hypothesis construction. In contrary to the multipurpose platform Kickstarter, the platform wemakeit gives the initiator the opportunity to choose between one to three categories in which the project will be featured in. Since previous scholars mostly utilized Kickstarter as a source for data collection, the variable number of categories (H3) is an addition due to the individual characteristics of the platform wemakeit.

The hypothesis on reward categories (H4) follows Kuppuswamy and Bayus' (2014) study stating that 'projects with many reward categories are likely to garner additional backer support' (Kuppuswamy and Bayus, 2014, p.14).

The hypothesis concerning the variable languages (H5) was included in an effort to expand on existing literature. Wemakeit offers the possibility to include the project description in three different languages, French, German and English, which is a unique feature not available in other popular analysis platforms. However, the use of such a variable is of a great interest for platforms operating in Europe and therefore spanning different regions, such as wemakeit. The availability of the project description in more than one language might potentially increase the target audience, leading to a positive causal hypothesis construction.

Previous studies suggest that an increasing goal size is negatively correlated with success (Mollick, 2014; Crosetto and Regner, 2014) and that 'projects with smaller goals are likely to garner additional backer support' (Kuppuswamy and Bayus, 2014, p.14). Therefore, the hypothesis concerning the variable funding requested (H6) suggests a negative relationship between funding requested and funding success.

H1: The number of characters used in the title of a crowdfunding project description by the initiator does not significantly influence the funding success of a crowdfunding project.

H2: The use of an exclamation mark within the crowdfunding project title does not significantly influence the funding success of a crowdfunding project.

H3: A higher number of categories a crowdfunding project is featured in, positively influences the funding success of a crowdfunding project.

H4: A higher number of reward categories for the backer to choose from, positively influences the funding success of a crowdfunding project.

H5: A higher number of languages in which the project description is available, positively influences the funding success of a crowdfunding project.

H6: A higher amount of funding requested negatively influences the funding success of a crowdfunding project.

#### Attributes Media H7-H9

The variable video (H7) has been extensively used in previous research. The usage of a video within the project description is regarded as a measure of project quality and therefore contributes to project success (Mollick, 2014). Mollick (2014) was one of the first scholars using the variable in a study about

factors influencing a crowdfunding project's success and concluded that 'signals of quality, such as videos, are associated with greater success' (Mollick, 2014, p.13). Kuppuswamy and Bayus (2014) verified this finding by suggesting that 'successful projects are generally more likely to have a video' (Kuppuswamy and Bayus, 2014, p.11). Finally, Huili and Yaodong (2014) found that 'adding a video improves the information quality of the project and has a positive impact' but it also 'helps potential supporters get the whole picture of the project improving consumer information satisfaction' (Huili and Yaodong, 2014, p.31). The extensive amount of previous research therefore suggests a positive impact of the usage of a video on funding success as reflected in H7.

The variable pictures (H8) has been used frequently in previous literature for the prediction of a crowdfunding project's success. The results of previous studies vary and are in some cases even contradicting. Crosetto and Regner (2014) identify an increasing number of pictures used in the project description as a sign of quality. This finding also follows Mollick (2014) in his interpretation that an increasing number of pictures is positively correlated with funding success. On the other hand, Joenssen et al. (2014) considered pictures not to be significant when it comes to influencing project success. H8 was constructed following Mollick (2014) as well as Crosetto and Regner (2014) due to their significant contribution to the existing research.

News updates before project end (H9) refers to the updates on the project description made by the initiator during the crowdfunding campaign. Similar variables were used extensively by scholars and were often found to be highly significant. Previous research suggests that frequent news updates provide additional information to the backers about the development of the project and therefore prove the initiator's commitment (Joenssen et al., 2014). Mollick (2014) supports this finding suggesting that frequent news updates prove initiator preparation and a minimum amount of project quality. Some platforms actually recommend frequently updating the project in their guidelines to the project initiators (de Witt, 2012). Due to these findings, H9 suggests a positive influence of frequent news updates on funding success.

H7: The use of a video within the project description positively influences the funding success of a crowdfunding project.

H8: A higher number of pictures included in the project description positively influences the funding success of a crowdfunding project.

H9: A higher number of news updates made by the project initiator before the project end date positively influences the funding success of a crowdfunding project.

#### Attributes External References H10-H11

Both the variable Facebook page (H10), related to the project or the initiator, as well as the variable other channels (H11) were included to explore the external references that the initiator decides to include in the project description. Balboni et al. (2014) found in their study that a 'Facebook presence is less relevant for achieving the funding goals' (Balboni et al., 2014, p.14).

The usage of the variable other channels (H11) serves as an expansion of the existing literature and followed the same reasoning as H10. The variable other channels aims at identifying the influence of links to external channels, such as a personal website or a YouTube video, included in the project description. Previous studies tried to measure the impact of external references on success by using separate variables such as the presence of a personal website, or a separate Twitter account and generated contradicting results (Balboni et al., 2014; Müllerleile and Joenssen, 2014). The construction of H11 follows the findings corresponding to the variable Facebook page (H10).

H10: The use of a link to an external Facebook page within the project description related to the project itself or the project initiator does not significantly influence the funding success of a crowdfunding project.

H11: The use of external references to other channels within the project description does not significantly influence the funding success of a crowdfunding project.

#### Attributes Initiator H12-H13

The variable number of supported projects (H12) measures the impact of the initiator's previous activity on the platform. As described by Zvilichovsky et al. (2014) most of the crowdfunding platforms, including wemakeit, give their users the ability to 'play both sides of the market', meaning that they can have a dual role of being both initiator and a backer. Wemakeit also gives its initiators the opportunity to include their backing activity in their public profile in order to be considered a part of the crowdfunding of a project is associated with initiators' former backing actions, due to different factors such as the dynamics of learning, reciprocity, visibility and network status. The construction of H12 follows the findings of Zvilichovsky et al. (2014).

The variable individual or group (H13) reflects the founding team composition. Previous researchers such as Frydrych et al. (2014) have demonstrated that projects created by pairs and teams show higher success rates. The hypothesis follows the reasoning that an initiator group has access to a larger social network than an initiator individual, therefore potentially attracting more backers within their direct environment.

H12: A higher number of supported projects by the initiator on the platform positively influences the funding success of a crowdfunding project.

H13: A crowdfunding project conducted by a group of people, as opposed to a single individual, is more likely to achieve funding success.

The overall research question of the study at hand, stretching across all hypotheses outlined above, can therefore be summarized by the following confirmatory query.

'Taking on the initiator's perspective: Which predictors influence the funding success of a reward based crowdfunding project within the creative industries?'

The discussion in chapter 6 will later on analyse the above established hypotheses in relation to the empirical findings presented in chapter 5 and therefore ultimately determine the relevance of the underlying predictors of funding success within the environment of reward based crowdfunding in the creative industries. These findings will then not only contribute to closing the gap on crowdfunding research within the creative industries but also by developing a new conceptual framework of predictors of funding success.

# 3 Research Context

The following chapter will give a brief overview of the platform of analysis. It will present the development of the platform itself, its focus and most importantly its underlying structural framework in order to offer relevant context regarding the factors influencing funding success in reward based crowdfunding projects in the creative industries on this particular platform.

The study at hand is examining wemakeit, the largest crowdfunding platform in Switzerland and one of the largest in Europe (Wemakeit I, 2015). At the moment, the European crowdfunding market is not yet governed by one common regulatory regime, due to the various crowdfunding types and other alternative financing methods available, as well as due to the complex regulatory environment within Europe (European Comission, 2014). However, it is in the interest of the European Commission and other institutions, such as the European Crowdfunding Network, to engage in a discussion about a pan-European regulatory system, general qualification criteria or even accreditation of platforms in order to minimize fraud, stimulate the market and signal credibility to all stakeholders (De Buysere et al., 2012).

The Swiss platform wemakeit is considered 'a powerful and effective tool that fosters careers and realizes projects, which wouldn't have earned the attention they deserve in the normal capital market' (Wemakeit II, 2015). The company is privately held and its headquarters are located in Zurich. It was founded in February 2012 by Rea Eggli, agent in the field of cultural communications, Johannes Gees, artist, and Jürg Lehni, interaction designer (Wemakeit III, 2015). Wemakeit focuses mainly on the support of creative projects in the fields of culture, society, design, fashion and environment and attracts roughly 100,000 visitors per month and 60,000 active users in total. The overall amount of funding gathered for all the projects via the platform reached 7,500,000 CHF in February 2015 and in the same month the firm celebrated 3 years of operations by expanding to Austria and Germany (Alois, 2015).

The platform offers an online tool through which the project initiator can create his or her own crowdfunding project<sup>1</sup>. Via the tool, the project initiator determines all relevant project information, such as title, category, rewards, funding goal and any media he or she might want to include. In the subsequent step, wemakeit offers a special, additional service in the form of expert coaching. The coaches personally assist the preparation and development

<sup>&</sup>lt;sup>1</sup> See Appendix A for project examples

phase of the project to ensure a quick and efficient process until the go-live of the project on the platform.

Currently, more than 1,000 projects have been completed on the platform and almost 71% percent of them have successfully reached their funding goal. Wemakeit claims that after successful completion all the projects were eventually carried out (Wemakeit II, 2015). Data for both ongoing and closed previous projects is available online in order to serve as a source of inspiration for other users. The structure of the platform is reward based and the rewards' content and structure are predetermined by the initiator before the launch of the project. The backers also have the option of choosing non-reward funding if they are willing to support a project without claiming a certain reward. They can also use anonymous funding in case they prefer to hide their contribution to a certain project. The crowdfunding campaign and all the supported actions are conducted within a period of 30 days for all the projects and the platform is based on an AON approach. In case of success, the project initiator receives the amount of funding achieved minus 10%, which corresponds to 6% of commission fees and 4% of transaction fees. If a project has not reached its funding goal, the backers are refunded for their support within the next 5 days with an amount equal to their contribution minus a transaction fee of 2.5% and the project initiator receives no funding (Wemakeit IV, 2015).

The platform entails additional constraints regarding project content, amount of funding requested, publishing on other crowdfunding platforms, editing and cancellation processes and copyrights. These constraints include a minimum funding goal of 1,000 CHF or 500 EUR, the restriction of changes in the project's characteristics such as duration and amount requested after the campaign's initiation and the prohibition of initiating the same project on another crowdfunding platform during the same period. There is no limitation on the maximum amount requested by the initiator, however it is suggested that the request is made within realistic margins in order for the project to succeed.

## 4 Data and Methodology

The following chapter will outline the data collection process of the study at hand as well as the methodology applied throughout the research. Starting with the data collection of the entire population, the research will then focus on a randomized sample including a broad range of parameters. In addition, the chapter will outline the statistical model applied in this study, the logistic regression.

#### 4.1 Data Collection

The main source of data for the study at hand has been the webpage of the crowdfunding platform wemakeit itself. All projects, successful, unsuccessful and ongoing, that have been launched since the start of the platform in 2012, are available online, offering an enormous database for analysis. The projects are listed on the project overview page of the platform and are displayed in the order of first ongoing, then successful and at last unsuccessful projects. The overview page displays the name of the project, a picture, the project categories, the project title and a short project description, the project location, the funding achieved in total and relative to the funding goal as well as the number of days the project has been live. Each project overview is then a clickable tile, linking to the detailed project page on wemakeit.

An initial contact with the platform wemakeit itself confirmed that the cumulated project data is not available in a format ready for analysis such as Excel, which made it necessary to extract all relevant data manually. The first round of data collection was conducted in November 2014 over the course of two weeks by the two researchers conducting the study at hand. At this point in time the platform displayed a total of 1,075 completed projects, of which 768 were completed successfully and 307 remained unsuccessful, leading to a success rate of 71.4%. The focus of the data collection process was solely on completed projects since ongoing projects would be subject to change over time.

The data subject to analysis was extracted through manual data collection conducted by the both of us. Variables such as project initiator, indicating if the project initiator was one (individual) or more than one person (group), required human attention, which ruled out automated web data extraction tools. In addition, the time and energy expended for setting up an automated process to extract the data would have been significantly higher than in a manual data extraction. In order to achieve maximum accurateness, precision and quality of the data extracted, we used data triangulation (Denzin, 1970). Data triangulation entails, among other methods, gathering the same amount of data by more than one person, in our case the two of us, in order to confirm the reliability of the data.

The initial round of data collection focused on the key parameters of each project including data such as project name, project categories, funding requested, funding achieved, currency, number of backers, project end date as well as the project URL on wemakeit for further purposes of data collection. Over the course of two weeks in November 2014 we collected the above mentioned parameters for all 1,075 completed projects available at the time, determining the entire population for the study at hand. No additional projects were added to the population after this point in order to determine a consistent database for analysis.

After the initial round of data collection, the entire population was randomized and a sample of 300 projects selected, representing almost 30% of the entire population. A sample of 300 cases represents an EPV (estimates per variable) value of more than 20, which has shown a considerable reduction in selection bias when compared to lower EPV values (Steyerberg et al., 1999). Additionally, a commonly used guideline suggests a minimum number of 10 cases for every predictor (Agresti, 2007). Selecting 300 cases did also account for a possible reduction in the sample size due to adjustments regarding the data quality of the sample in the later stages of the data collection process.

For the selected sample, a second and final round of data collection was conducted in February 2015 over the course of one week to create a more extensive database including additional parameters for analysis. An extensive description of all variables used for analysis and their relevance for the study can be found in chapter 4.3 and 4.4.

Out of 300 projects, in total 14 projects indicated all monetary values, such as funding achieved and funding requested, in Euro ( $\in$ ) whereas the remaining 286 projects were indicated in Swiss Franc (CHF). In order to harmonize the monetary variables, the values in  $\in$  were transformed into CHF, subsequently matching the remaining projects in the sample. To adjust these values, the exchange rate valid on the project end date was used to transform all 14 projects in Euro into CHF (OANDA, 2015).

The data collected and corrected for currency variations was then compounded into a dataset, serving as the basis for analysis. Detailed

information on descriptive statistics of the dataset can be found in table 4 in chapter 5.1.

#### 4.2 Data Quality

In the next step, the quality of the dataset was assessed. Since the whole dataset was examined as complete and consistent in terms of no missing values and no discrepancies in the coding of the variables the dataset was then examined for univariate outliers using the extreme studentized deviation (ESD) identifier (Daviesa and Gather, 1993), commonly known as the sigma-approach. The sigma-approach identifies any value outside + and -  $z^*$  standard deviations (sigma) of the mean as an outlier. The nominal range used by the ESD identifier method is therefore the following closed interval:

$$[\mu - z^*\sigma, \mu + z^*\sigma]$$

The method then removes all values from  $x_i$  where

$$|x_i - \mu| > \sigma_i * z^*$$

With the parameter  $z^*$  indicating the maximum allowed z-score for any given item (Roller et al., 2013). Even though the literature suggests in several cases the use of the median and the median absolute deviation (MAD) identifier over the ESD identifier (Pearson, 2003), recent research (Tiwari et al., 2007) has shown better results with the ESD over the MAD method for logistic regressions, which will be used in the following analysis. We followed the three-sigma approach in our method, identifying all values outside three ( $z^*$ ) standard deviations ( $\sigma$ ) of the mean ( $\mu$ ), therefore leaving more than 99% of the observations within the interval (Wheeler and Chambers, 1992). Subsequently, the dataset was cleaned by removing all outliers outside three standard deviations of the mean for each individual variable, which led to an elimination of 25 cases, creating a dataset of 275 cases. The same approach was applied on cleaning the entire population of significant outliers detecting 14 cases and generating a final population of 1,061 projects.

#### 4.2.1 Data Reliability and Validity

In order to assess the quality of the quantitative research conducted in the subsequent analysis, data reliability and validity must be assessed. Validity describes how accurately a study analyses the concept it is designed or intended to analyse. When assessing a study's validity one needs to take into

account external as well as internal reliability, the former focusing on the generalizability or transferability of the results whereas the latter is concerned with the causality of the relationship between independent and dependent variables (Bryman and Bell, 2011; Campbell and Stanley, 1963).

The study at hand has been conducted on a dataset of 275 cases drawn from a population of 1,075 crowdfunding projects. In order to ensure the external validity of the results presented, meaning the transferability of the results of the sample regression on to the entire population, the sample has been drawn randomly from the population. Secondly, the analysis of descriptive patterns in both the sample and the population shows almost identical patterns for key values such as category distribution, annual distribution, success rate as well as funding goals, therefore ensuring the external validity of the results. Thirdly, the data taken into consideration covers a period of more than 2.5 years, therefore minimizing the influence of short term effects on the analysis, ensuring external validity.

By following a backward elimination process in constructing the logistic regression model used in the analysis, only predictors significantly influencing the dependent variable were taken into account in order to ensure an accurate causal relation between the variables and therefore to ensure that cause and effect are related (Shadish et al., 2001). Temporal precedence as an integral part of internal validity is established within the structure of the platform itself, since all predictors are defined by the initiator before the backers are able to access the information to make a funding decision. All predictors used in the analysis cannot be altered after the campaign has started and once the information is available to the backers.

The reliability of a study generally assesses the consistency and the reproducibility of the results (Carmines and Zeller, 1979). The study at hand applies a binary logistic regression model, a method, which has been established as highly reliable by various researchers in the field of crowdfunding research ((Mollick, 2014; Müllerleile and Joennssen, 2014; Zvilichovsky et al., 2014). In addition, data extracted for the study is strictly quantifiable in numerical values, leaving little to no room for ambiguity or interpretation and therefore ensuring a reliable research design. Lastly, as outlined in chapter 4.1, the data used in the study was extracted using strict data triangulation, ensuring maximum accurateness and data quality and therefore the reliability of the research (Denzin, 1970).

#### 4.3 Dependent Variable Construction

Depending on the characteristics of every crowdfunding platform, different approaches for quantifying success have been applied within previous crowdfunding research. Analysis on platforms using a KIA policy in terms of the achieved funding, often measure success as a percentage of the initially requested funding goal, in order to examine the magnitude of success (Cumming et al., 2014). Another approach was used by Belleflamme et al. (2013), defining the dependent variable as the ratio of funds raised to the targeted amount of funds (Belleflamme and Lambert, 2013).

The platform of analysis, we make it, uses the AON approach in terms of refunding the initiator, defining the success of a project as absolute and not relative in terms of funding. This AON approach, meaning absolute definition of a project's success, is reflected in the subsequent analysis model by using funding requested as the binary dependent variable of the logistic regression.

The statistical model defines the dependent variable success as binary or dichotomous with 1 corresponding to success, meaning the requested funding was achieved, and 0 corresponding to failure, meaning the requested funding was not achieved. Defining success as a dichotomous variable does not account for the magnitude of success in terms of how much funding was raised relatively to the initial amount asked, but defines any project as a success reaching 100% or more than 100% of the initially requested funding goal. Therefore, all projects achieving or overachieving their individual funding goal were coded with 1, whereas all projects not achieving their individual funding goal were coded with 0. Defining the dependent variable and therefore the success of a project as binary follows recent research within the field by applying a logistic regression model for analysis in order to identify the key influencing factors on the success of crowdfunding projects (Mollick, 2014; Müllerleile and Joenssen, 2014; Zvilichovsky et al., 2014).

#### 4.4 Independent Variables Construction

The hypotheses developed in chapter 2.6 are reflected by the corresponding independent variables presented below, derived from the previous literature or developed as a result of the individual characteristics of the platform analysed in this study. The following section will illustrate the statistical characteristics and dimensions of the set of independent variables utilized in the logistic regression analysis in chapter 4.5. The independent variable presentation follows the attribute framework of hypotheses established in chapter 2.6 and illustrated in table 1.

Success in relation to	Attributes Project	Attributes Media	Attributes External References	Attributes Initiator
Control by initiator	<ul> <li>Number of characters in title</li> <li>Contains exclamation mark</li> <li>Number of categories</li> <li>Reward categories</li> <li>Languages</li> <li>Funding requested all CHF</li> </ul>	<ul> <li>Video</li> <li>Pictures</li> <li>News updates before project end</li> </ul>	<ul> <li>Facebook page</li> <li>Other channels</li> </ul>	<ul> <li>Number of supported projects</li> <li>Individual or group</li> </ul>

Table 2: Independent Variable Matrix

#### Attributes Project

Number of characters in title (H1): The variable counts the number of characters in the title of each project.

Contains exclamation mark (H2): The variable is binary and indicates the existence of an exclamation mark in the project's title.

Number of categories (H3): The variable is nominal and can take values between one and three. The variable depicts the number of categories that the project is featured in. Since a selection of at least one project category is a prerequisite on wemakeit, this variable cannot take a value of zero. The maximum value of the variable is three, since the maximum number of categories a project can be represented in is three.

Reward categories (H4): The variable is nominal and can take values greater than 1. Since the platform is reward based, no project can be initiated without a corresponding reward offer. The number of rewards available and the reward structure is however determined by the initiator.

Languages (H5): The variable is nominal and takes values between 1 and 3. The platform offers the possibility to the initiator to include a project description in three different languages, German, English and French.
Funding requested (H6): The variable is numerical and indicates the amount of funding requested by the initiator at the beginning of the campaign. All values were converted into CHF using the valid currency exchange rate at the end date of the project as outlined in section 4.1. The variable was modified by a log transformation in order to reduce the scale distance between all predictors, following the approach of previous researchers in the field (Mollick, 2014).

#### <u>Attributes Media</u>

Video (H7): In addition to text, the initiator can include a visual pitch in the project description in the form of a video. This variable is binary and depicts the inclusion of a video in the project description, with the value 1 corresponding to a video being available.

Pictures (H8): The variable is numerical and indicates the number of pictures included in the project description.

News updates before project end (H9): The variable is numerical and indicates the number of news updates on the project page made by the initiator before the project end date. The platform does allow for news updates after the project finishes, however, these updates were not taken into account due to the bias towards the dependent variable. The timing of the news updates during the project duration was not taken into consideration.

#### Attributes External References

Facebook page (H10): The variable is binary and indicates if the project description includes a link leading to a Facebook fan page related to the project itself or to any of the initiators. Only links leading to an actual Facebook 'fan page' where taken into account whereas personal profiles of the initiator(s) where not considered within the analysis.

Other channels (H11): The variable is numerical and indicates the number of links, referring to other channels within the project description. Examples of other channels include Twitter accounts, personal websites and blogs, YouTube and Vimeo channels. Each channel was counted once, meaning that links leading to different subpages of the same website were not taken into account. Links to a Facebook presence were not included in the variable due to the representation in the previous variable.

#### <u>Attributes Initiator</u>

Number of supported projects (H10): The variable is nominal and shows the number of previously supported projects by the initiator. The information is available on the initiator's wemakeit profile page. The initiator has the option to

anonymously support a project as a backer but in most of the cases such actions are consciously kept public to reinforce the phenomenon of the collaborative community (Hui et al., 2014).

Individual or group (H11): The variable is binary and explores whether a project was created by an individual or by a group of people. The value of 0 corresponds to the initiator being an individual and 1 to the initiator being more than one person such as a music group, an association or a committee.

4.5 Logistic Regression

The logistic regression method is used for the prediction of a binary or dichotomous outcome. It has been extensively used in the past as a standard method for analyses in different fields, such as the medical and social sciences as well as marketing (Hosmer and Lemeshow, 2004; Pohlman and Leitner, 2003). More specifically, it has been used in order to model the probability of success, defining success as the occurrence of the outcome coded with the number 1 whereas failure refers to the value of 0 (Menard, 2002).

The logistic regression model estimates the probability of a certain event occurring as a function of a set of continuous and/or categorical independent variables. In this way, it is able 'to determine the effect size of the independent variables on the dependent, to rank the relative importance of independents, to assess interaction effects and to understand the impact of covariate control variables. The impact of predictor variables is usually explained in terms of odds ratios' (Garson, 2014, p.16).

The main assumptions of logistic regression can be summarized in the following. Firstly, the dependent variable must be a dichotomy. Secondly, similar to the ordinary least squares (OLS) method the assumption of independence (independence of irrelevant alternatives) must not be violated. This means that the odds of one group must be unaffected by the presence or absence of other groups. A popular test for this condition is the Hausman-McFadden test (Hausman and McFadden, 1984). Since outliers can significantly influence the results of the logistic regression, they must be excluded (Peng and So, 2002). Within the following analysis, significant outliers have been excluded applying the ESD identifier method explained in chapter 4.2. Furthermore, the error terms must be independent and a low error and no missing cases in the explanatory values are strongly recommended (Menard, 2012). In contrary to the OLS method, the logistic regression method does not assume a linear relationship between the dependent and the independent variables, however it does assume that there is a linear relationship between the continuous variables and the log odds of the dependent one. Last but not least, larger samples are needed when using logistic regression since it is shown that as sample size increases the size of bias in logistic regression parameter estimates approaches zero (Menard, 2002).

Before illustrating the logistic regression function, it is important to highlight why a linear regression model would be unsuitable for the subsequent analysis. As Bahovec et al. (2013) suggest in order to do that we should first assume that Y represents the dependent variable and x (for j = 1,k) represents the values of k independent variables for this same Y. Now we suppose that Y is a binary variable coded as Y= 1 in case of success and 0 otherwise. In this case the possibilities of the two events occurring are P(Y= 1) = p and P(Y=0)= p-1 respectively. The expected value E(Y) would be the same as P(Y) since

$$E(Y) = 1 * p + 0 * (1 - p) = p$$

and the multiple linear probability would be

$$\mathbf{p} = \mathbf{E}(\mathbf{Y}) = \beta_0 + \beta_1 \mathbf{x}_1 + \beta_2 \mathbf{x}_2 + \cdots \beta_k \mathbf{x}_k$$

where ( $\beta_0 \dots \beta_k$ ) are vectors of unknown parameters (Bahovec et al., 2013). The linear regression model as shown before has certain shortcomings when it comes to predicting a dichotomous outcome. Although the probabilities can take values only within the range (0,1) the linear function can take on any value (Bahovec et al., 2013). Furthermore, the relationship between the probabilities and the independent variables is usually non-linear, a fact that contradicts with one of the basic assumptions of the linear regression model (Groß, 2003). As a result, we should reconstruct this function into a logistic function, which would look like the following for the dependent variables Y

$$p = \frac{1}{1 + e^{-(\beta_0 + \beta_1 x_1 + \beta_k x_k)}} = \frac{1}{1 + e^{-(\beta_0 + X'\beta)}}$$

We could also observe the logit transformation of this function

$$logit(p) = \ln\left(\frac{p}{1-p}\right) = \ln\left(\frac{\frac{1}{1+e^{-(\beta_0 + X'\beta)}}}{1-\frac{1}{1+e^{-(\beta_0 + X'\beta)}}}\right) = \ln e^{\beta_0 + X'\beta} = \beta_0 + X'\beta$$

And the resulting logit regression model would be

$$\ln\left(\frac{p}{1-p}\right) = \beta_0 + X'\beta + \varepsilon$$

, where the variable  $\boldsymbol{\epsilon}$  represents the error term.

In this model the  $\beta$  coefficients represent the Logits (log odds) or else the slope values of the regression equation. They can be interpreted as the change in the average value of Y, from one unit of change in X. Instead of the log odds, the odds ratio can also be calculated which can be interpreted as the estimated change in the log odds of the event occurring (Y=1, in the present case the event of success) created by a one unit increase in the independent variable (Bahovec et al., 2013).

For the following analysis, a stepwise backward elimination method was applied, in order to determine the final logistic regression model. The stepwise backward elimination process is more accurate and less risky since it does not fail to identify relationships that already exist in the model (Menard, 2002). Using this method, the analysis focused on a broad model including all independent variables and subsequently eliminating all non-significant variables in a gradual, stepwise process, based on a significance level of p<0.05 (Menard, 2002).

4.6 Limitations

Due to the very specific focus of the conducted research, the findings and conclusions drawn must be considered as applicable within the scope of the study at hand. As outlined in chapter 2.6 the study aims at identifying success factors in reward based crowdfunding projects based on an analysis of the platform wemakeit, which focuses on projects within the creative industries mainly in Switzerland, Austria and Germany. Together with the novelty of the crowdfunding market, its very diverse industry, legal and structural landscape (Dietrich and Amrein, 2014), the conclusions drawn from the following analysis are primarily applicable to the platform examined.

Apart from the general limitations from the specific research environment, the statistical model applied in the analysis entails certain constraints. First of all, the logistic regression only accounts for the presence of success and not for the magnitude of success due to the dichotomy of the dependent variable as an integral part of the model. Even though this model follows the leading research within the field of crowdfunding (Mollick, 2014; Müllerleile and Joenssen, 2014; Zvilichovsky et al., 2014), the magnitude of the success of a crowdfunding project on wemakeit is therefore not accounted for in the research at hand.

Secondly, the predictors within the logistic regression do not account for the timing or the content of certain variables. For example, the predictor news updates before project end only accounts for the number of news updates between the project start and end date and does not take into account when the news updates were published by the project initiator or what content these news updates covered. A similar constraint applies to the predictor number of reward categories, as it only counts the reward categories available and does not indicate what the project initiator offered the backers.

Lastly, the initial regression model applied includes 13 predictors, which we believe are able to, at least in parts, explain the variations in the dependent variable from the initiator perceptive. However, the model likely entails an omitted variable bias as not all factors influencing the success of a crowdfunding project can possibly be incorporated in one statistical model. There are likely many factors outside of the platform, such as the social network of the project initiator, the support of friends and family as well as the feedback on submitted project descriptions given by wemakeit employees, which influence the success of a crowdfunding project.

Overall, the structure of the statistical model applied and the nature of the crowdfunding industry itself entail certain constraints on the results from the research conducted. However, the significant amount of data taken into consideration as well as a careful data collection process and a high data quality confirm the predictive power of the statistical model applied and support the conclusions drawn from the analysis.

# 5 Empirical Findings

The following chapter will present the empirical results of the study. The first section focuses on descriptive patterns in both the sample and the entire population whereas the second section will outline the logistic regression analysis. The regression analysis will illustrate the construction of the final regression model by the process of gradual elimination of independent variables according to significance levels.

#### 5.1 Descriptive Patterns

The sample dataset used in the following regression analysis contains data on 275 crowdfunding projects published on the platform wemakeit between 27.02.2012 (start of platform) and 01.11.2014. During this period, a total of 1,340,865 CHF<sup>2</sup> in funding was raised by on average 46.8 backers per project. Out of the total amount of funding raised, 28.5% of funding accounts for non-reward funding, meaning that the backer did not claim a reward after backing the project.

The entire population of projects published on the platform within the same period contains 1061 projects.<sup>3</sup> With a success rate of 72% the entire population represents a similar success distribution compared to the sample. All 765 successful projects of the entire population raised a total of 5,009,038 CHF in the specified period, funded by on average 47.5 backers per project. Extremely similar values in success rate, average amount of backers and project category distribution as illustrated by table 3, indicate a strong predictive power of the sample for the entire population and therefore for all projects on the analysed platform in general.<sup>4</sup> In terms of category distribution, music and film are by far the most frequent categories for both the sample and the population, followed by categories such as art, photography, publication, design, stage and dance, illustrating the creative focus of the platform as discussed in chapter 3.

<sup>&</sup>lt;sup>2</sup> Amount refers to the total amount of funding accumulated by successful projects, as unsuccessful projects do not receive any funding due to the platforms AON policy.

<sup>&</sup>lt;sup>3</sup> The original population size included 1075 projects for the indicated period. 15 projects have been excluded from the population due to extreme values in funding requested. The same data cleansing approach as for the sample has been applied.

<sup>&</sup>lt;sup>4</sup> Data includes projects between 27.02.2012 (start of platform) and 01.11.2014.

	2012	2013	2014	Total	Success Rate	2012	2013	2014	Total	Success Rate
Music	57	141	158	356	77%	14	40	41	95	79%
Film	38	67	75	180	74%	13	10	24	47	72%
Art	22	31	28	81	64%	5	8	6	19	63%
Photography	9	33	28	70	73%	3	8	9	20	70%
Publishing	18	22	25	65	66%	5	3	6	14	64%
Design	7	22	27	56	77%	2	5	10	17	76%
Performing Arts	15	26	16	57	74%	4	7	0	11	64%
Dance	7	21	18	46	74%	2	12	8	22	73%
Literature	8	20	17	45	60%	3	5	4	12	75%
Fashion	3	5	13	21	57%	0	0	2	2	100%
Kids/Youth	0	4	15	19	79%	0	1	2	3	100%
Food	2	5	11	18	61%	1	1	0	2	100%
Community	2	2	8	12	50%	1	1	0	2	0%
Festival	0	5	6	11	91%	0	1	4	5	80%
Technology	1	3	1	5	0%	0	0	0	0	0%
Architecture	1	3	1	5	60%	0	1	0	1	0%
Games	0	3	2	5	0%	0	0	0	0	0%
Science	0	2	1	3	33%	0	1	0	1	0%
Comics	0	1	1	2	0%	0	0	0	0	0%
Exhibition	0	0	2	2	50%	0	0	1	1	100%
Journalism	0	0	1	1	100%	0	0	1	1	100%
Environment	0	0	1	1	0%	0	0	0	0	0%
Fair Trade	0	0	0	0	0%	0	0	0	0	0%
Agriculture	0	0	0	0	0%	0	0	0	0	0%
Total	190	416	455	1061	72%	53	104	118	275	73%
Success Rate	71%	68%	76%			64%	63%	86%		

Table 3: Annual Project Distribution by Category - Sample and Population

The descriptive values for all independent and the dependent variables of the sample used in the analysis are outlined in table 4, grouped by the attributes categories of the underlying analysis framework illustrated in figure 2. The sample includes 275 crowdfunding projects with no missing values for any variable leading therefore to 275 observations for all variables. Out of 275 projects, 202 have successfully reached their funding goal, accounting for a success rate of 73.5%. The average project description includes a title of 22 characters, with an exclamation mark in the title in 6% of the cases, is listed in 1.6 categories, offers a range of 8.1 different reward categories and is translated into 1.4 languages out of 3, whereas German is by far the most common language, followed by English and French.

The average media usage within the project description amounts to 6.5 pictures, accompanied by a video in 88% of the cases. On average, the project initiator writes 1.3 updates to communicate with potential and existing backers. Within the project description the project initiator refers to 2.5 external other channels such as YouTube, a personal website, Twitter or Vimeo. In 31% of the cases the project description includes a link to a Facebook Page, either associated with the project itself or the project initiator. In 64% of the cases, the project initiator is more than one person. On average, the project initiator has supported 0.6 other projects within the same platform. The average amount of funding requested for the sample is 5,761 CHF with a standard deviation of 4,045 CHF.<sup>5</sup>

	# Observations	Min	Max	Mean	Std
Dependant Variable					
Successful_Unsuccessful	275	0	1	0,735	0,442
Independent Variables					
Attributes Project Description					
Characters_Title	275	3	54	22,036	9,503
Contains_Exclamation	275	0	1	0,062	0,241
Categories	275	1	3	1,604	0,729
Reward_Categories	275	1	17	8,145	2,864
Languages	275	1	3	1,360	0,614
Funding_Requested_Log	275	6,590	9,952	8,423	0,712
Attributes Media					
Video	275	0	1	0,884	0,321
Pictures	275	0	24	6,527	4,948
News_Before_ProjectEnd	275	0	8	1,309	1,787
Attributes External References	S				
FB_Project_Initiator	275	0	1	0,313	0,464
Other_Channels	275	0	12	2,520	2,394
Attributes Initiator					
Supported_Projects	275	0	8	0,724	1,408
Individual_Group	275	0	1	0,647	0,479

Table 4: Descriptive Patterns

Table 5 displays Pearson's correlation coefficients for all 14 variables used in the analysis. In cases of significant correlations, the coefficients only show a weak or a negligible relationship between the corresponding independent variables, indicating no underlying multicollinearity between the predictor variables, therefore not violating the assumption of independence.

<sup>&</sup>lt;sup>5</sup>Values not displayed in table 4, as variable funding requested has been modified with a log transformation for the regression analysis.

Correlation Matrix	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Successful_Unsuccessful (1)	1													
Characters_Title (2)	-0,04	1												
Contains_Exclamation (3)	0,09	0,02	1											
Categories (4)	0,02	-0,03	-0,11	1										
News_Before_ProjectEnd (5)	,335 <sup>™</sup>	-0,07	0,05	,181 <sup>™</sup>	1									
Languages (6)	,165 <sup>™</sup>	-0,06	-0,08	0,04	,184 <sup>**</sup>	1								
Video (7)	0,12	-0,04	0,00	-,135 <sup>°</sup>	0,04	0,10	1							
Pictures (8)	0,11	-,134 <sup>*</sup>	0,07	<b>,164</b> <sup>**</sup>	,142 <sup>*</sup>	0,12	-0,11	1						
Individual_Group (9)	0,04	0,01	0,09	-0,03	-0,05	-,150 <sup>°</sup>	-0,03	0,01	1					
Supported_Projects (10)	,134 <sup>°</sup>	-0,02	-0,01	0,11	<b>,246</b> **	0,01	0,00	0,04	-,124 <sup>*</sup>	1				
Reward_Categories (11)	,235 <sup>**</sup>	-0,08	0,08	-0,07	,192 <sup>**</sup>	0,04	,205 <sup>**</sup>	,152 <sup>°</sup>	0,05	,138 <sup>*</sup>	1			
FB_Project_Initiator (12)	,139 <sup>°</sup>	0,03	0,05	-,128 <sup>°</sup>	0,01	0,04	0,10	0,08	0,07	-0,02	,259 <sup>**</sup>	1		
Other_Channels (13)	0,04	-0,03	-0,01	0,01	,135 <sup>*</sup>	0,11	0,08	,173 <sup>™</sup>	-0,03	0,11	,176 <sup>™</sup>	,122 <sup>°</sup>	1	
Funding_Requested_Log (14)	-0,08	-,121 <sup>°</sup>	0,06	-0,03	0,07	0,11	0,10	,240 <sup>**</sup>	0,02	,145 <sup>°</sup>	,350 <sup>**</sup>	0,09	,168 <sup>**</sup>	1
** p<0,01														

\* p<0,05

Table 5: Correlation Matrix

The histograms in figures 3 and 4 illustrate the relationship between funding requested by the initiator and the corresponding success rate for both the sample and the entire population. Both figures show a very similar pattern in frequency of the chosen funding requested as well as in the corresponding success rate. Funding levels requested between 2,000 and 3,000 CHF and between 4,000 and 5,000 CHF account for the most frequent categories in both the population and the sample. Overall, the success rate of projects within the sample and the population are much more stable for the more frequent categories in the first third of the funding range, whereas the success rate's volatility increases with increasing funding goal, not least due to the often very low number of projects within those funding goal levels.



Figure 3: Funding Requested Histogram and Success Rate - Sample



Figure 4: Funding Requested Histogram and Success Rate - Population

#### 5.2 Regression Analysis

The regression results shown in the following chapter are derived in line with the methodology described in chapter 4. Following the logistic regression analysis in order to predict project success as the dichotomous dependent variable, the first regression model included all 13 independent variables. In the following process, the stepwise backward elimination approach was applied, gradually adjusting the model in order to carefully construct a model of significant predictive variables (p<0.05). The backward elimination process eliminated nine independent variables showing no significant predictive power, and ultimately leading to 10 evolving regression models illustrated in the tables 6-9. The final logistic regression model (table 9) includes the final significant variables.

		Model 1		Model 2		Model 3			
	В	Sig.	Exp(B)	В	Sig.	Exp(B)	В	Sig.	Exp(B)
Attributes Project Description									
Characters_Title	-,006	,724	,994						
Contains_Exclamation	,985	,234	2,678	,986	,234	2,679	1,050	,202	2,858
Categories	-,177	,461	,837	-,173	,472	,841			
Reward_Categories	,224	,001	1,251	,223	,001	1,250	,223	,001	1,250
Languages	,795	,029	2,214	,805	,027	2,236	,785	,030	2,192
Funding_Requested_Log	-,970	,000	,379	-,965	,000	,381	-,950	,000	,387
Attributes Media									
Video	,562	,266	1,753	,575	,254	1,776	,608	,230	1,836
Pictures	,062	,103	1,064	,064	,096	1,066	,058	,118	1,059
News_Before_ProjectEnd	,826	,000	2,283	,827	,000	2,287	,815	,000	2,260
Attributes External References									
FB_Project_Initiator	,517	,174	1,677	,509	,180	1,663	,508	,179	1,662
Other_Channels	-,063	,405	,939	-,064	,398	,938	-,062	,417	,940
Attributes Initiator									
Supported_Projects	,174	,257	1,190	,173	,260	1,189	,163	,287	1,177
Individual_Group	,272	,433	1,313	,270	,435	1,310	,262	,449	1,299
Constant	5,047	,021	155,615	4,842	,022	126,784	4,479	,028	88,177
# Observations	075			075			075		
	275			275			275		
Chi Square	82,689			82,564			82,048		
p	(0,000)			(0,000)			(0,000)		
Pseudo R Square	0,379			0,378			0,376		
-2 Log-Likelihood	235,588			235,713			236,229		
Classification Success	78,9			79,3			78,5		

Table 6: Regression Models 1-3

0									
	Madal 4			Model 5			Model 6		
	Р	Sig	Evro(P)	Б	Sig	Evo(P)	D	Sig	Evp(P)
Attributes Project Description	0	Sig.	LAP(D)		Sig.	сф(В)		Sig.	Lvb(D)
Characters Title									
Contains Exclamation	1 088	185	2 968	1 1 2 9	168	3 093	1 1 2 4	170	3 077
Categories	1,000	,	2,000	.,.=0	,	0,000	.,	,	0,011
Reward_Categories	,225	,001	1,252	,224	,001	1,251	,229	,001	1,258
Languages	,743	,036	2,103	,701	,043	2,016	,687	,046	1,987
Funding_Requested_Log	-,953	,000	,386	-,962	,000	,382	-,927	,000,	,396
Attributes Media									
Video	,596	,237	1,815	,580	,249	1,785	,531	,285	1,700
Pictures	,059	,111	1,060	,056	,122	1,058	,054	,137	1,055
News_Before_ProjectEnd	,831	,000	2,296	,817	,000	2,264	,869	,000	2,384
Attributes External References									
FB_Project_Initiator	,517	,169	1,678	,503	,182	1,653	,484	,197	1,623
Other_Channels	-,060	,429	,942						
Attributes Initiator									
Supported_Projects	,145	,334	1,156	,144	,342	1,155			
Individual_Group									
Constant	4,711	,019	111,179	4,747	,017	115,210	4,543	,021	93,926
# Observations	275			275			275		
Chi Square	81,476			80,851			79,866		
р	(0,000)			(0,000)			(0,000)		
Pseudo R Square	0,374			0,371			0,368		
-2 Log-Likelihood	236,801			237,426			238,411		
Classification Success	78,9			79,3			77,1		

Table 7: Regression Models 4-6

		Model 7		Model 8				Model 9	
	В	Sig.	Exp(B)	В	Sig.	Exp(B)	В	Sig.	Exp(B)
Attributes Project Description									
Characters_Title									
Contains_Exclamation	1,075	,187	2,930						
Categories									
Reward_Categories	,240	,001	1,272	,239	,001	1,270	,240	,001	1,271
Languages	,711	,037	2,036	,691	,042	1,996	,715	,033	2,045
Funding_Requested_Log	-,921	,000	,398	-,912	,000	,402	-,829	,001	,436
Attributes Media									
Video									
Pictures	,048	,176	1,050	,050	,154	1,051			
News_Before_ProjectEnd	,873	,000	2,395	,872	,000	2,391	,876	,000,	2,402
Attributes External References									
FB_Project_Initiator	,520	,164	1,682	,534	,153	1,705	,570	,125	1,769
Other_Channels									
Attributes Initiator									
Supported_Projects									
Individual_Group									
Constant	4,867	,013	129,896	4,870	,012	130,380	4,427	,019	83,649
# Observations	275			275			275		
Chi Square	78,725			76,659			74,572		
р	(0,000)			(0,000)			(0,000)		
Pseudo R Square	0,363			0,355			0,346		
-2 Log-Likelihood	239,552			241,617			243,705		
Classification Success	78,2			76,7			77,8		

Table 8: Regression Models 7-9

Table 9 shows the logistic regression coefficient, standard error, Wald test, degrees of freedom, significance level and the odds ratio for each of the predictors of the final logistic regression model 10. Employing a 0.05 criterion of statistical significance news updates before project end, languages, reward categories and funding requested have significant effects on the project's funding success.

	В	S.E.	Wald	df	Sig.	Exp(B)
Attributes Project Description						
Reward_Categories	,259	,068	14,722	1	,000	1,296
Languages	,699	,330	4,480	1	,034	2,013
Funding_Requested_Log	-,820	,245	11,200	1	,001	,441
Attributes Media						
News_Before_ProjectEnd	,870	,190	20,954	1	,000	2,387
Constant	4,374	1,880	5,412	1	,020	79,369
# Observations	275					
	2/5					
Chi Square	72,146					
р	(0,000)					
Pseudo R Square	0,337					
-2 Log-Likelihood	246,131					
Classification Success	77,1					

Table 9: Final Regression Model 10

A test of the entire model including all four predictors versus a model with intercept only was statistically significant, Chi Square  $\chi^2$  = 72.146, p<0.001. In terms of overall model fit the pseudo  $R^2$  (Nagelkerke) as an improvement from the null model to a fitted model displays a value of 0.337. However, due to the cross-sectional nature of the underlying dataset, pseudo  $R^2$  values perform generally rather low in this context. In addition, Hosmer and Lemeshow (2004) strongly suggest only taking into account a comparison between observed and predicted values to assess the goodness-of-fit of the model. Looking at the classification table (table 10), the model was able to overall correctly classify 77.1% of the cases, based on a cut-off value of 0.5 and compared to a classification success of 73.5% in a model with intercept only. The classification shows a sensitivity of 91%, a specificity of 38%, with a false positive rate of 20% and a false negative rate of 39%. The low false positive rate and a high sensitivity indicate an especially good predictive power of the model for predicting successful cases. The trade-off between sensitivity and specificity for each predictor can be observed in the receiver operating characteristic curve in figure 1. Table 11 illustrates the area under the curve for all predictors.

	Predicted					
		Successful_L	Successful_Unsuccessful			
				Percentage		
Observed	Unsuccessful	Successful	Correct			
Successful_Unsuccessful	Unsuccessful	28	45	38,4		
	Successful	18	184	91,1		
Overall Percentage				77,1		

Table 10: Classification Table (Cut-Off 0,500)

#### Area Under the Curve (AUC)

Test Result Variables	AUC
News_Before_ProjectEnd	0,741
Reward_Categories	0,649
Languages	0,580
Funding_Requested_Log	0,444

Table 11: Area Under the Curve (AUC)



Figure 5: Receiver Operating Characteristic (ROC) Curve

Through the backward elimination process all independent variables in the attribute categories external references and initiator were eliminated, showing no significant influence on the success of a crowdfunding project in the analysis. The attribute category media shows news updates before project end as a major predictor in crowdfunding success. The attribute category project description shows languages, reward categories and funding requested as three additional significant predictors of success. The four significant predictors of success identified by the model show the following relationship with the dependent variable.

The number of reward categories available for the backers to choose from shows a positive impact on funding success. The predictor shows a positive coefficient and an odds ratio of 1.296, leading to the following interpretation: 'One more reward category available makes it 1.296 times more likely for a project to achieve its funding goal, therefore more likely to succeed, holding all other variables constant'.

The predictor languages shows a similar relationship with a positive coefficient and an odds ratio of 2.013: 'One additional language, in which the project description is available, makes it 2.013 times more likely for a project to achieve its funding goal, therefore more likely to succeed, holding all other variables constant'.

The predictor news updates before project end shows again a positive coefficient and an odds ratio of 2.387: 'One more news update by the initiator

before the project end date, makes it 2.387 more likely for a project to achieve its funding goal, therefore more likely to succeed, holding all other variables constant'.

The odds ratio and the coefficient of the predictor funding requested indicate a negative correlation between an increase in funding requested by the initiator and project success. The variable has been modified by a log transformation, leading to the following interpretation: 'An e-fold increase in funding requested, makes it 0.441 less likely for a project to achieve its funding goal, therefore less likely to succeed, holding all other variables constant'.

The hypotheses developed in chapter 2.6 are reflected by the independent variables tested in the logistic regression models. The analysis of all predictors confirms the hypotheses H1, H2, H4, H5, H6, H9, H10 and H11. In addition, it rejects the hypotheses H3, H7, H8, H12 and H13. Table 12 gives an overview of the different hypotheses, the corresponding predictors, the significance level<sup>6</sup> of each predictor as well as the outcome of the hypotheses.

Hypothesis	Predictor	Significance	Outcome
Attributes Project			
H1	Number of characters in title	,724	Confirmed
H2	Contains exclamation mark	,187	Confirmed
H3	Number of categories	,472	Rejected
H4	Reward categories	,000,	Confirmed
H5	Languages	,034	Confirmed
H6	Funding requested	,001	Confirmed
Attributes Media			
H7	Video	,285	Rejected
H8	Pictures	,154	Rejected
H9	News updates before project end	,000	Confirmed
Attributes External Refer	rences		
H10	Facebook page	,125	Confirmed
H11	Other channels	,429	Confirmed
Attributes Initiator			
H12	Number of supported projects	,342	Rejected
H13	Individual or group	,449	Rejected

Table 12: Hypotheses Outcome, Variables and Significance

<sup>&</sup>lt;sup>6</sup> In case of predictors not included in the final logistic regression model, the values indicate the significance level of the last model the predictor was included.

## 6 Discussion

The following chapter will offer an in depth discussion, analysis and explanation of the findings of the logistic regression model in relation to the previously established hypotheses. This will be done with regard to previous literature. The part following the analysis is going to demonstrate the potential for future research, theoretical contributions as well as relevant managerial implications.

6.1 Discussion of Findings in Relation to Hypotheses

Combining previous literature and the results generated by the quantitative analysis, the study will now discuss its findings in relation to the previously established hypotheses. Table 13 will give an overview of all 13 hypotheses and the corresponding outcome. The logistic regression analysis finds four out of 13 independent variables to be significant. The variables news updates before project end (H9), languages (H5), reward categories (H4) and funding requested (H6) were identified as significantly contributing to a crowdfunding project's success in the analysis context. Three of these variables, languages, reward categories and funding requested were categorized under the attributes project category whereas the variable news updates before project end was grouped under the attributes media category in the underlying analysis framework. All predictors in the categories attributes initiator and attributes external references were not significant according to the empirical analysis. Figure 6 shows the condensed version of the underlying analysis and hypotheses framework which has been modified according to the empirical findings. The following part will discuss the empirical findings for each hypothesis in relation to the existing literature within each attributes category.



Figure 6: Condensed Hypotheses Framework

### 6.1.1 Attributes Project (H1-H6)

Hypotheses H1 and H2 of the model were confirmed by the empirical analysis. Characters in title (H1), a variable that was found not to be significant in Kuppuswamy and Bayus' (2014) study, was also proven not significant in the present analysis, thus confirming H1. The variable showed a large standard deviation from the mean, indicating that title length varies greatly across projects. The variable contains exclamation mark was also found not to be significant by the analysis, therefore confirming H2. The empirical analysis does not take into consideration the actual content, wording and phrasing of the title and does therefore not measure the effectiveness of the title's message to attract possible backers. Especially in the creative industries, the message and the emotions it provokes can heavily impact the backers' decision to access and fund a project (Caves, 2000). There are several guidelines available concerning the creation of the best possible project title. According to them, attributes, which the initiators should keep in mind before creating a project title, include simplicity, accuracy, and provoking curiosity (Funds for NGOs, 2013). Furthermore, even though the content of the project title itself might encourage the potential backer to access the project description in order to receive additional information, it does not necessarily influence the funding decision of the potential backer (Kuppuswamy and Bayus, 2014).

H3, reflecting the number of categories a project is featured in, was rejected by the analysis. The hypothesis followed the argument that an increasing number of categories might potentially broaden the project's target audience interested in specific categories. However, the analysis did not confirm this relationship. The variable number of categories was an addition due to the individual characteristics of the platform wemakeit, which is why previous studies have not analysed the specific number of categories. Instead, previous scholars applied a set of dummy variables in order to specify which of the categories available might correlate positively or negatively with success (Kuppuswamy and Bayus, 2014; Crosetto and Regner, 2014). Crosetto and Regner (2014) found that categories related to games and technology correlated positively with success whereas projects in the categories music and film had a negative correlation. As illustrated by table 3 in chapter 5.1, the most successful projects both in the sample as well as in the population are located in the categories music, film and arts, contradicting with the findings made by Crosetto and Regner (2014).

H4, reflecting the number of reward categories, has been confirmed by the analysis and has shown a high level of significance (p<0.001). The hypothesis concludes that one extra reward category makes it more likely for success to occur. As explained by Müllerleile and Joenssen (2014), the significant influence of this factor can be based on the effects of price discrimination or differentiation. Price differentiation, in the sense of 'offering a homogenous commodity at the same time to different customers in different prices' (Machlup, 1955, p.397), is considered to have a positive impact on sales and profitability (Phillips, 2005). Since reward based crowdfunding is regarded as a form of preselling (Mollick, 2014), it can be argued that the more rewards available, the bigger the chances to include an attractive offer at an attractive 'price' for one specific backer. Therefore, the more carefully considered rewards a project initiator includes, the wider the potential audience of backers, and the higher the chances of funding success. Previous scholars observed that within the creative industries 'projects tend to incorporate a higher number of rewardlevels' (Frydrych et al., 2014, p.258). This partially originates in the fact that creative projects are able to offer a better mix of tangible and intangible rewards. Experiences, such as a personal meeting with the artist initiating the project, can be used as alternative, highly valued rewards, which are purchased by the backers for a larger amount of money. These types of rewards are considered to offer 'supplementary social-psychological incentives' (Frydrych et al., 2014, p.261) to the backers urging them to contribute to a project's success.

H5, reflecting the variable languages, was confirmed by the empirical analysis. Including the project description in an additional language increases the chances of funding success. The hypothesis was included in an effort to expand on existing literature and to reflect the unique primary location of the platform wemakeit, Switzerland, a country, which has three official languages. Wemakeit allows the initiators to include project descriptions in two of them, German and French, as well as English, thus allowing them to increase the audience able to understand the project description. Translating the project description in more than one language therefore increases the potential reach of the crowdfunding project and broadens the audience of backers attracted by the project. In addition, one might argue that making the effort of translating the project description indicates an increased initiator preparedness and willingness to succeed. These factors might therefore serve as a signal of quality as argued by Mollick (2014).

H6, reflecting the variable funding requested, was confirmed by the empirical analysis. Furthermore, the variable was highly significant (p<0.001). An increasing amount of funding requested has therefore a negative impact on funding success. These findings confirm the results of previous studies (Mollick, 2014; Crosetto and Regner, 2014), arguing that 'projects with smaller goals are likely to garner additional backer support' (Kuppuswamy and Bayus, 2014, p.14). Previous scholars have used the variable in an effort to determine the amount of funding that an initiator should request from potential backers in order to increase the project's chances for success. Since most of the studies on crowdfunding are conducted on platforms using an AON approach, it is even more important to determine the impact of funding requested on funding success. In line with the findings of the study at hand, most platforms encourage project initiators to keep the amount of funding requested within reasonable limits (Kickstarter IV, 2015). Since the term reasonable can differ depending on the nature of each project, it is more accurate to determine an 'appropriate amount of target funding' (de Witt, 2012, p.21) instead, taking into consideration the 'scope of each creative idea' (Kuppuswamy and Bayus, 2014, p.19). Furthermore, Frydrych et al. (2014) suggest that a higher target funding needs to be supported by more effort on the initiator's side in order to legitimate his or her need in the eyes of the potential backers. Initiators need to persuade the backers that the funding requested is essential for them to realize their project and that this procedure is transparent. Similar to traditional venture capitalist procedures it is impossible to achieve higher funding without justifying the use of the requested funds (Frydrych et al., 2014).

#### 6.1.2 Attributes Media (H7-H9)

H7, reflecting the variable video, was rejected by the analysis, therefore contradicting with the previous literature. The variable has been extensively used by previous scholars who argued that including a video within the project description is a measure of the project's quality and therefore contributes to project success (Mollick, 2014; Kuppuswamy and Bayus, 2014; Huili and Yaodong, 2014). This finding was not confirmed by the study at hand since the existence of a video within the project description did not significantly influence

a project's funding success. However, the literature also suggests that including a video is a 'must do in a crowdfunding campaign' (Crowdfund Insider II, 2015). Therefore, the usage of a video might be considered a prerequisite of a project description, thus not significantly influencing the backing decision. In fact, 88% of the projects analysed in the sample dataset of this study used a video in the project description. The usage of a video offers certain advantages over a plain text project description. Since video is considered a very engaging medium of communication, the concept of a project can be easily explained and illustrated within a video without losing the backer's interest and making it a popular medium for the initiator to use (Crowdfund Insider II, 2015). Even though the variable showed no significant influence on funding success, the content and quality of the video, which were not taken into account in this study, might have a bigger influence over the mere existence of a video. 'Making a crowdfunding video that works' (Clair, 2014) is considered to be extremely important for attracting backers' interest, which makes it necessary to consider qualitative factors of the video when assessing its influence on funding success.

H8, reflecting the variable pictures, was rejected by the analysis. The number of pictures included in the project's description has therefore no significant influence on the funding success. The existing literature offers various and even contradicting results on the use of pictures in crowdfunding projects' descriptions (Crosetto and Regner, 2014; Mollick, 2014; Joenssen et al., 2014). Similar to the existence of a video, the use of pictures as part of a project description can be considered a prerequisite, especially for the creative industries (Crowdfund Insider II, 2015). Furthermore, as Joenssen et al. (2014) suggest, pictures are mostly used to illustrate existing information but not necessarily to give additional information, therefore not offering further value for the backers' funding decision.

H9, reflecting the variable news updates before project end, was confirmed by this analysis. Similar variables have been used extensively by previous scholars, showing a positive impact of frequent news updates on funding success. Frequent news updates are considered to be a sign of the initiator's commitment and preparedness as well as a signal of project quality (Joenssen et al., 2014; Mollick, 2014). Furthermore, Müllerleile and Joenssen (2014) suggest, that news updates can serve as a communication platform or even as part of a previously thought out 'communication strategy' from the initiator towards the backers. A similar pattern was observed in the study at hand, where the initiators used the news feature not only to inform existing and potential backers during the project duration, but also to communicate with them after the successful completion of the campaign. In addition, news updates can be used as a reinforcement method to urge existing backers to share the campaign or

encourage additional contributions. However, the content and the timing of each update, which were not taken into account in this study, also play an important role in influencing the funding decision and the mere frequency of news updates does not guarantee funding success (Müllerleile and Joenssen, 2014).

Within the creative industries the 'actors tend to operate in networks and maintain close collaborative relationships with suppliers, customers or partners' (German Federal Ministry of Economics and Technology, 2012, p.6). The creative actors believe that by cooperating and communicating closely with their network, they 'emotionalize' their product thus being able to better cover clients' needs (German Federal Ministry of Economics and Technology, 2012). These industry specifics show the importance of keeping a personal contact with potential backers for the project initiators in the creative industries and offer additional arguments for frequent news updates during the project duration.

#### 6.1.3 Attributes External References (H10-H11)

H10, reflecting the variable Facebook page, was confirmed by the analysis since a link to an external Facebook page, either related to the project or the initiator, did not have a significant influence on funding success. This finding confirms previous research conducted by Balboni et al. (2014). In addition, the analysis of the sample projects used in the study at hand showed that a Facebook page of project initiators in the creative industries (e.g. artists, bands) often pre-exists the start of a crowdfunding project. Therefore, the page is often not solely used for the purpose of gathering additional backers support, thus not significantly influencing funding success.

H11, reflecting the variable other channels, was also confirmed by the analysis illustrating that additional links to other channels do not significantly influence funding success. Previous scholars analysed these channels individually (Balboni et al., 2014; Müllerleile and Joenssen, 2014), whereas the variable other channels aggregates them. Even though other channels were frequently used in the sample dataset (mean: 2.5), the analysis showed no significant influence on funding success. The usage of external links within the project description requires the potential backer to click and actually pursue the additional channel in order to access additional information. The usage of other channels therefore requires additional action by the backer and is not immediately present in the project description, which might offer a potential explanation for having no significant impact on the funding success. Furthermore, as mentioned in relation to the variable Facebook page, the variable other channels did only account for a quantitative measure of external references. It does not account for the

actual content of these references, which might have a significant impact on the backers funding decision and ultimately on funding success.

6.1.4 Attributes Initiator (H12-H13)

H12, reflecting the variable number of supported projects, was rejected by the analysis, therefore showing no significant influence of the initiator's previous activity as a backer on funding success. Previous scholars have found different results regarding this variable. Zvilichovsky et al. (2014) show that the successful funding of a project is often influenced by initiators' former backing actions. Surprisingly, no similar findings were made in the study at hand, even though the creative industries heavily rely on the use of a network and a community (German Federal Ministry of Economics and Technology, 2012). A possible explanation to this outcome might be the age of the platform of analysis. Wemakeit is still a relatively young crowdfunding platform, where initiators do not yet seem to take advantage of the networking effects in the creative industries, illustrated by the low average amount of previously supported projects (mean: 0,72).

H13, reflecting the variable individual or group, was rejected by the analysis, showing no significant influence of the founding team composition on funding success. Previous research demonstrated higher success rates for projects created by pairs and teams (Frydrych et al., 2014), which is not supported by the empirical findings in this study. In addition, the reasoning, that an initiator group has access to a larger social network than an initiator individual, therefore potentially attracting more backers within their direct environment, is not confirmed as well.

Previous research in traditional venture capital investment decision-making processes has shown, that the information available about the founding team can influence the investor's decision (MacMillan et al., 1987). Even though reward based crowdfunding does not consider backers as investors in the traditional sense, backers still expect a project to succeed if they decide to contribute, since they only receive a reduced amount of their initial contribution due to the platforms policy in case of failure. For the potential backer it might therefore be important to not only observe the composition of the founding team, but to also get an insight into the personal characteristics and the background of the team members, which is not reflected by the variable used in the study at hand.

Hypothese	S	Outcome
Attributes	Project	
Hl	The number of characters used in the title of a crowdfunding project description by the initiator does not significantly influence the funding success of a crowdfunding project.	Confirmed
H2	The use of an exclamation mark within the crowdfunding project title does not significantly influence the funding success of a crowdfunding project.	Confirmed
H3	A higher number of categories a crowdfunding project is featured in positively influences the funding success of a crowdfunding project.	Rejected
H4	A higher number of reward categories for the backer to choose from positively influences the funding success of a crowdfunding project.	Confirmed
H5	A higher number of languages in which the project description is available positively influences the funding success of a crowdfunding project.	Confirmed
H6	A higher amount of funding requested negatively influences the funding success of a crowdfunding project.	Confirmed
Attributes	Media	
H7	The use of a video within the project description positively influences the funding success of a crowdfunding project.	Rejected
H8	A higher number of pictures included in the project description positively influences the funding success of a crowdfunding project.	Rejected
H9	A higher number of news updates made by the project initiator before the project end date positively influences the funding success of a crowdfunding project.	Confirmed
Attributes	External References	
H10	The use of a link to an external Facebook page within the project description related to the project itself or the project initiator does not significantly influence the funding success of a crowdfunding project.	Confirmed
H11	The use of external references to other channels within the project description does not significantly influence the funding success of a crowdfunding project.	Confirmed
Attributes I	Initiator	
H12	A higher number of supported projects by the initiator on the platform positively influences the funding success of a crowdfunding project.	Rejected
H13	A crowdfunding project conducted by a group of people, as opposed to a single individual, is more likely to achieve funding success.	Rejected

Table 13: Hypotheses Outcome

## 6.2 Theoretical Contribution and Managerial Implications



Figure 7: Conceptual Model - Success Factors

Taking a holistic view on the contributions made by the empirical analysis together with the discussion, we are able to develop a new conceptual model for success factors in reward based crowdfunding projects in the creative industries. The study at hand utilized a modified attribute framework originally developed by Hekman and Brussee (2013) and complemented by two additional attribute categories and variables established by other scholars (Mollick, 2014; Müllerleile and Joenssen, 2014; Balboni et al., 2014; Crosetto and Regner, 2014). The empirical analysis then tested this framework of potential predictors of funding success in the research environment and ultimately identified four significant factors. Figure 7 illustrates a new conceptual model suggested by this study summarizing the empirical findings together with implications from previous research.

The conceptual model includes the four variables significantly influencing funding success, reward categories, languages, funding requested and news updates before project end, divided by the two categories attributes media and attributes project. Two of the variables, reward categories and languages, have a broadening impact on the potential audience of backers attracted by the project. An increasing range of reward categories increases the amount of available options for the backers to choose from. This increase in options makes it ultimately more likely to offer an attractive reward at an attractive contribution 'price' for one particular backer, therefore increasing the potential audience. In addition, translating the project description in more than one language increase the reach of the crowdfunding project, as an additional language targets an additional language area and therefore an additional audience.

In addition to an increase in audience, the model underlines the importance of perceived feasibility of the project by the backer. A lower amount of funding requested, within a reasonable range (Crosetto and Regner, 2014; Mollick, 2014; Frydrych et al., 2014; Kuppuswamy and Bayus, 2014), can assure the potential backer that the initiator's request is based on realistic expectations, therefore increasing the perceived feasibility of the project and positively influencing the funding decision made by the backer. Furthermore, frequent news updates made by the initiator during the project quality (Mollick, 2014), assuring the potential backer of the feasibility of the crowdfunding project.

Overall, the conceptual model developed by the study at hand was able to significantly contribute to further closing the theoretical gap within the success factors in crowdfunding research. Especially the potential of factors increasing the backer audience has not been fully explored by existing scholars and therefore offers significant value for future crowdfunding research. The model should be seen as an addition to existing frameworks established by scholars such as Hekman and Brussee (2013) or Mollick (2014). Since the research environment of the analysis was defined by reward based crowdfunding projects in the creative industries, the model is of particular importance within this specific environment. However, the findings of the model can offer additional value for entrepreneurs and new business owners across the crowdfunding sphere.

Considering the managerial implications of the study at hand, the conceptual model offers the creative entrepreneur an insight into the dynamics of crowdfunding success. The following recommendations should be seen as support for the creative entrepreneur or young business owner in setting up a reward based crowdfunding project.

1) Carefully considering a wide range of reward categories, which offer substantial value to the potential backer and are positioned at an attractive contribution 'price', will cover a wide range of backers' needs and differentiate on the corresponding 'price'.

2) If the platform allows for translating the project description in different languages, it is highly recommend to take advantage of this opportunity to attract more potential backers. Translating the project description in one or more languages makes the project accessible to a wider audience. Even if the project has a local focus, a multilingual approach will always work as an advantage for the project initiator.

3) The amount of funding requested should be kept within reasonable limits. Overall, a transparent disclosure which amount of funding is required for which elements of the project shows initiator preparedness and assures the potential backer of the feasibility of the project.

4) Frequent news updates during the project duration will keep the backers informed about the project's progress. A frequent communication with the backer audience can work as a signal of the initiator's willingness to succeed, therefore potentially encouraging additional contributions. In addition, news updates can be used to keep in touch with backers long after the successful completion of the crowdfunding project.

#### 6.3 Potential for Future Research

Even though the study at hand was able to offer a significant contribution to the existing research, there are numerous opportunities for further analysis. Since the study focused on a specific crowdfunding platform within the creative industries, testing the findings on additional platforms with a similar focus could offer significant value. In doing so, additional research could complement existing findings and potentially develop an industry-wide overview of crowdfunding platforms with a creative focus.

Furthermore, several variables used in the analysis were a quantitative measure, not analysing the content or the qualitative aspect of a factor. Further studies could try to fill the existing gap by analysing the content of a project title, text description, reward as well as video and pictures in an effort to account for the influence of the qualitative aspects of these variables on funding success. The study at hand focused on factors under the influence of the project initiator. In order to establish a holistic picture of factors influencing funding success, additional research might focus on factors under the influence of the backers within the environment of reward based crowdfunding in the creative industries.

Finally, the logistic regression model utilized in this study did not account for the magnitude of a project's funding success, as the dichotomous coding of the dependent variable classified projects as either successful or unsuccessful. Applying alternative statistical models in future research might offer the opportunity to identify the dynamics behind immensely overfunded projects or projects achieving no funding at all.

# 7 Conclusion

The final chapter will summarize this study's findings, especially aiming at answering the questions set with regard to the research objectives.

This study aimed at identifying the predictors influencing the funding success of a reward based crowdfunding project within the creative industries, by taking on the initiator's perspective. The study was primarily focused on closing the existing literature gap by complementing other scholars' work on success factors of crowdfunding (Mollick, 2014; Crosetto and Regner, 2014; Müllerleile and Joenssen, 2014; Balboni et al., 2014) and more specifically on reward based crowdfunding in the creative industries. A new, expanded framework was developed, which was built upon the work of Hekman and Brussee (2013). The model, including the developed hypotheses with regard to previous literature, was then tested using a logistic regression method. The discussion of the empirical findings was able to generate both theoretical and managerial contributions that will improve the understanding of crowdfunding within the creative industries. The theoretical contributions include a new conceptual model, which expands on existing literature. The managerial contributions on the other hand include the creation of a specific set of guidelines available for the creative initiator to follow, which will also offer additional value for project initiators outside the creative crowdfunding industry.

The four variables included in the final conceptual model verified and extended previous literature by identifying that audience and feasibility increasing factors have a positive impact on funding success in the creative industries. Reward categories, funding requested and news updates before project end were variables previously identified by scholars as success predictors with regard to multipurpose crowdfunding platforms. However, languages was added as an expansion to the existing literature and was proven to be highly significant. Surprisingly, other potentially audience increasing factors with regard to attributes of the initiator were not confirmed, a fact that was explained by taking into consideration the special conditions of the platform.

Concluding, the study at hand identified the need for a special treatment in literature of different industries within crowdfunding and aimed at closing the existing gap for the creative industries. It has set the ground for future studies to further analyse this industry, as part of a rapidly changing environment.

# Bibliography

Agrawal, A., Catalini, C. and Goldfarb, A. (2011). The geography of crowdfunding. National Bureau of Economic Research, w16820.

Agresti, A. (2007). Building and Applying Logistic Regression Models, in An Introduction to Categorical Data Analysis. Second Edition ,ed. NJ: John Wiley & Sons Inc.

Aitamurto, T.(2011). The Impact of Crowdfunding on Journalism. Journalism Practice, 5(4), 429-445.

Alois, J. (2015). Crowdfundinsider. [Online] Available at :<u>http://www.crowdfundinsider.com/2015/02/62147-swiss-</u> <u>crowdfunding-site-wemakeit-celebrates-3-years-of-operations-expands-into-</u> <u>austria-germany/</u> [Accessed 14 05 2015].

Aram, J. D. (1989). Attitudes and behaviors of informal investors toward earlystage investments,technology-based ventures and co-investors. Journal of Business Venturing, 4, 333-347.

Bachmann, A. et al. (2011). Online Peer-to-Peer Lending – A Literature Review. Journal of Internet Banking and Commerce, 16.

Bahovec, V., Erjavec, N. and Čižmešija, M. (2013). Logistic Analysis Of the Impact of Contributing Factors on the Success of Students of Higher Education in Quantitative Courses. Croatian Operational Research Review (CRORR), 4.

Balboni, B., Kocollari, U. and Pais, I. (2014). How Can Social Enterprises Develop Successful Crowdfunding Campaigns? An Empirical Analysis on Italian Context.

Barbi, M. and Bigelli, M. (2015). Crowdsfunding Practices in and Outside the US.

Barnett, C. (2013). Forbes. [Online] Available at: <u>http://www.forbes.com/sites/chancebarnett/2013/05/08/top-10-</u> <u>crowdfunding-sites-for-fundraising/</u> [Accessed 09 05 2015].

Beier, M. and Wagner, K. (2014). Crowdfunding between Social Media and E-Commerce: Online Communication, Online Relationships and Fundraising Success on Crowdfunding Platforms. Belleflamme, P. and Lambert, T. (2013). Individual crowdfunding practices. Venture Capital: An International Journal of Entrepreneurial Finance, 15(4), 313-333.

Belleflamme, P. and Lambert, T. (2014). Crowdfunding: some empirical findings and microeconomic underpinnings. Revue Bancaire et Financiere, 4, 288-296.

Berger, A. N. and Udell, G. F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. Journal of Banking & Finance, 613-673.

Berger, A. N. and Udell, G. F. (2002). Universal banking and the role of small business lending: The importance of bank organisational structure. The economic journal, 122(477), 32-53.

Bhide, A. V. (2000). The Origin and Evolution of New Businesses. Oxford University Press.

Boeuf, B., Darveau, J. and Legoux, R. (2014). Financing Creativity: Crowdfunding as a New Approach for Theatre Projects. International Journal of Arts Management, 16(3).

Bryman, A. and Bell, E. (2011). Business Research Methods. 3rd Ed.

Campbell, D. T. and Stanley, J. C. (1963). Experimental and Quasi-Experimental Designs for Research, USA

Carmines, E. and Zeller, R. A. (1979). Reliability and Validity Assessment. Sage publications, 17.

Caves, R. E. (2000). Creative industries: Contracts between art and commerce. Harvard University Press.

Chen, X.-P., Xin, Y. and Suresh, K. (2009). Entrepreneur passion and preparedness in business plan presentations: a persuasion analysis of venture capitalists' funding decisions. Academy of Management Journal, 52(1), 199-214.

Clair, N. (2014). Forbes. [Online] Available at: <u>http://www.forbes.com/sites/neilstclair/2014/11/27/how-to-make-a-crowdfunding-video-that-works/</u> [Accessed 15 05 2015].

Colombo, M. G. and Grilli, L. (2003). Funding Gaps? Access to the Loan Market by High-Tech Startups.

Crosetto, P. and Regner, T. (2014). Crowdfunding: Determinants of success and funding dynamics. Jena Economic Research Papers, 35.

Crowdcube (2015). Crowdcube. [Online] Available at: <u>https://www.crowdcube.com/</u> [Accessed 14 05 2015].

Crowdfund Insider I (2013). Crowdfundinsider. [Online] Available at: <u>http://www.crowdfundinsider.com/the-ultimate-crowdfunding-guide/</u> [Accessed 10 05 2015].

Crowdfund Insider II (2015). Crowdfundinsider. [Online] Available at: <u>http://www.crowdfundinsider.com/2013/07/18787-guarantee-</u> <u>crowdfunding-success-must-do-list/</u> [Accessed 15 05 2015].

Crowdfund UK (2012). Crowdfunduk. [Online] Available at: <u>http://crowdfunduk.org/2012/10/22/using-facebook-for-</u> <u>crowdfunding/</u> [Accessed 15 05 2015].

Crowdfunding Pays (2014). Crowdfunding Pays. [Online] Available at: <u>https://www.crowdfundingpays.com/advantages-of-reward-based-crowdfunding</u> [Accessed 14 05 2015].

Cumming, D. J., Leboeuf, G. and Schwienbacher, A. (2014). Crowdfunding Models: Keep-It-All vs. All-or-Nothing. Paris.

Daviesa, L. and Gather, U. (1993). The Identification of Multiple Outliers. Journal of the American Statistical Association, 88(423), 782-792.

de Bettignies, J.-E. and Brander, J. A. (2007). Financing entrepreneurship: Bank finance versus venture capital. Journal of Business Venturing, 22(6), 808-832.

De Buysere, K., Gajda, O., Kleverlaan, R. and Marom, D. (2012). A Framework for European Crowdfunding.

De Cambre, M. (2014). Quartz. [Online] Available at: <u>http://qz.com/202090/why-crowd-funding-is-set-to-explode-in-size-over-the-next-few-years/</u> [Accessed 14 05 2015].

De Fillippi, R. and Wikström, P. (2014). International Perspectives on Business Innovation and Disruption in the Creative Industries. In: :Edward Edgar Publishing Limited, 149-177. de Witt, N. (2012). A Kickstarter's Guide To Kickstarter: How to successfully fund your creative project.

Delahaye, B. (2005). Knowledge management in an SME. International Journal of Organisational Behaviour, 9(3), 604-614.

Denzin, N. K. (1970). The Research Act: A Theoretical Introduction to Sociological Methods. Transaction publishers.

Dietrich, A. and Amrein, S. (2014). Crowdfunding Monitoring Switzerland 2014. Lucerne: Institute of Financial Services Zug IFZ.

DiFass (2013). Creative Industries and Crowd Funding. DiFass-Transfer of Success.

Dushnitsky, G. and Marom, D. (2013). Crowd Monogamy. Business Strategy Review, 24(4), 24–26.

Ernst and Young (2014). Adapting and Evolving: Global Venture Capital Insights and Trends 2014.

EU business (2014). EU Business. [Online] Available at: <u>http://www.eubusiness.com/funding</u> [Accessed 14 May 2015].

Europa I (2015). Europa. [Online] Available at: <u>http://europa.eu/youreurope/business/funding-grants/eu-programmes/index\_en.htm</u> [Accessed 16 05 2015].

Europa II (2015). European Comission Europa. [Online] Available at: <u>http://ec.europa.eu/regional\_policy/en/atlas/</u> [Accessed 16 05 2015].

European Banking Authority (2015). Opinion of the European Banking Authority on lending-based crowdfunding. [Online]. [Accessed 16 05 2015]. Available from: https://www.eba.europa.eu/documents/10180/983359/EBA-Op-2015-03+%28EBA+Opinion+on+lending+based+Crowdfunding%29.pdf

European Comission (2014). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Unleashing the potential of Crowdfunding in the European Union.

European Commission (2013). Creative industries: Analysis of industry-specific framework conditions relevant for the development of world-class clusters. [Online]. [Accessed 16 05 2015]. Available from:

http://www.emergingindustries.eu/Upload/CMS/Docs/Creative\_industries\_FCs.p df

European Commission (2015). Crowdfunding Explained: A guide for small and medium enterprises on crowdfunding and how to use it. European Publications Office.

European Private Equity and Venture Capital Association (2014). [Online] Available at: <u>http://ec.europa.eu/enterprise/policies/finance/data/enterprise-finance-index/venture-capital/index\_en.htm</u> [Accessed 10 05 2015].

Feeney, L., Haines, G. H. and Riding, A. L. (1999). 'Private investors' investment criteria: insights from qualitative data. Venture Capital: An International Journal of Entrepreneurial Finance, 1(2), 121-145.

Feller, J., Gleasure, R. and Treacy, S. (2013). From the Wisdom to the Wealth of Crowds: A Metatriangulation of Crowdfunding Research. TOTO Working Paper, 2.

Freear, J., Sohl, J. E. and Wetzel, W. E. (1994). Angels and non angels: Are there differences?. Journal of Business Venturing, 9, 109-123.

Freedman, D. M. and Nutting, M. R. (2015). A Brief History of Crowdfunding: Including Rewards, Donation, Debt, and Equity Platforms in the USA.

Frydrych, D., Bock, A. J., Kinder, T. and Koeck, B. (2014). Exploring entrepreneurial legitimacy in reward-based crowdfunding. Venture Capital: An International Journal of Entrepreneurial Finance, 16(3), 247-269.

Funds for NGOs (2013). Fundsforngos. [Online] Available at: <u>http://www.fundsforngos.org/proposal-writing-2/write-attractive-effective-project-title-project-proposal/</u> [Accessed 15 05 2015].

Garson, D. G. (2014). Logistic Regression: Binomial and Multinomial. North Carolina: Statistical Associates Publishers.

Gaston, R. J. and Bell, S. E. (1988). The Informal Supply of Capital. Applied Economics Group.

Gerber, E. M., Hui, J. S. and Kuo, P.-Y. (2012). Crowdfunding: Why People Are Motivated to Post and Fund Projects on Crowdfunding Platforms.

German Federal Ministry of Economics and Technology (2012). The cultural and creative industries in the macroeconomic value added chain. Impact chains, innovation, potentials.

Gompers, P. and Lerner, J. (2001). The Venture Capital Revolution. The Journal of Economic Perspectives, 15(2), 145-168.

Groß, J. (2003). Linear Regression Lecture Notes in Statistics. Dortmund: Springer.

Hall, J. and Hofer, C. W. (1993). Venture capitalists' decision criteria in new venture evaluation. Journal of Business Venturing , 8(1), 25-42.

Hausman, J. and McFadden, D. (1984). Specification tests for the multinomial logit model. Econometrica: Journal of the Econometric Society, 1219-1240.

Hekman, E. and Brussee, R. (2013). Crowdfunding and Online Social networks.

Hosmer, D. W. and Lemeshow, S. (2004). Applied Logistic Regression. John Wiley & Sons.

Hotho, S. and Champion, K. (2011). Small businesses in the new creative industries: innovation as a people management challenge. Management Decision, 49 (1), 29 - 54.

Hui, J. S., Greenberg, M. D. and Gerber, E. M. (2014). Understanding the Role of Community in Crowdfunding Work.

Huili, Y. and Yaodong, Z. (2014). Research on Influence Factors of Crowdfunding. International Business and Management, 9(2), 27-31.

Ian, M. C., Zemann, L. and Subbanarasimha, P. N. (1987). Criteria distinguishing successful from unsuccessful ventures in the venture screening process. Journal of business venturing, 2(2), 123-137.

Indiegogo (2015). Indiegogo. [Online] Available at: <u>https://www.indiegogo.com/explore?filter\_quick=most\_funded</u> [Accessed 14 05 2015].

Joenssen, D. W., Michaelis, A. and Müllerleile, T. (2014). A Link to New Product Preannouncement:Success Factors in Crowdfunding. Department of Quantitative Methods, University of Technology Ilmenau.

Jones, P., Comfort, D., Eastwood, I. and Hill, D. (2004). Creative industries: economic contributions, management challenges and support initiatives. Management Research News, 27(11/12), 134-145.

Karish, M. and Muralidharan, P. (2014). Crowdfunding: A New Paradigm in Start-Up Financing. Global Conference on Business & Finance Proceedings, 9(1), 369-374.

Kickstarter I (2014). Kickstarter. [Online] Available at: <u>https://www.kickstarter.com/projects/597507018/pebble-e-paper-</u> watch-for-iphone-and-android [Accessed 13 05 2015].

Kickstarter II (2015). Kickstarter. [Online] Available at: <u>https://www.kickstarter.com/discover/most-funded</u> [Accessed 14 05 2015].

Kickstarter III (2015). Kickstarter. [Online] Available at: <u>https://www.kickstarter.com/help/stats?ref=footer</u> [Accessed 14 05 2015].

Kickstarter IV (2015). Kickstarter. [Online] Available at: <u>https://www.kickstarter.com/help/handbook/funding</u> [Accessed 15 05 2015].

Kim, S. (2015). Abc News. [Online] Available at: <u>http://abcnews.go.com/Business/decide-exclamation-mark-email/story?id=28496683</u> [Accessed 14 05 2015].

Kleemann, F., Voß, G. and Rieder, K. (2008). Un(der)paid Innovators: The Commercial Utilization of Consumer Work through Innovation. Science, Technology & Innovation Studies, 4(1).

Kortum, S. and Lerner, J. (2000). Assessing the contribution of venture capital to innovation. RAND Journal of Economics, 31, 674.

Kuppuswamy, V. and Bayus, B. L. (2014). Crowdfunding Creative Ideas: The Dynamics of Project Backers in Kickstarter. UNC Kenan-Flagler Research Paper.

Lehnera, O. M. and Nicholls, A. (2014). Social finance and crowdfunding for social enterprises: a public-private case study providing legitimacy and leverage. Venture Capital: An International Journal of Entrepreneurial Finance, 16(3), 271-286.

Lemer, J. (1996). The Government as Venture Capitalist: The long run impact of the SBIR Program. National Bureau of Economic Research.

Lu, C.-T., Xie, S., Kong, X. and Yu, P. S. (2014). Inferring the impacts of social media on crowdfunding. Proceedings of the 7th ACM international conference on Web search and data mining.

Machlup, F. (1955). Characteristics and types of price discrimination. Business concentration and price policy. Princeton University Press, 397-440.

Macht, S. A. and Robinson, J. (2009). Do business angels benefit their investee companies?. International Journal of Entrepreneurial Behavior & Research, 15(2), 187-208.

MacMillan, I. C., Zemann, L. and Subbanarasimha, P. N. (1987). Criteria distinguishing successful from unsuccessful ventures in the venture screening process. Journal of business venturing, 2(2), 123-137.

Massolution (2013). 2013CF The Crowdfunding Industry Report. Massolution.

Massolution (2015). 2015CF Crowdfunding Industry Report. Massolution.

Maxwell, A. L., Jeffrey, S. A. and Lévesque, M. (2011). Business angel early stage decision making. Journal of Business Venturing, 212–225.

McAdam, R., McConvery, T. and Armstrong, G. (2004). Barriers to innovation within small firms in a peripheral location. International Journal of Entrepreneurial Behaviour & Research, 10(3), 206-21.

Menard, S. (2002). Applied Logistic Regression Analysis. 2nd ed. USA: Sage University Paper.

Mersham, G. (2013). The role of communications & social media in crowdfunding. Wellington.

Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. Journal of Business Venturing, 29(1), 1–16.

Moritz, A. and Block, J. H. (2013). Crowdfunding und Crowdinvesting: State-ofthe-Art der wissenschaftlichen Literatur (Crowdfunding and Crowdinvesting: A Review of the Literature). Zeitschrift für KMU und Entrepreneurship.

Müllerleile, T. and Joenssen, W. (2014). Key Success-Determinants of Crowdfunded Projects: An Exploratory Analysis. Ilmenau University of Technology.

Nagle, P. and Roche, C. (2013). Equity Crowdfunding for the Arts and Creative Industries, UK: Culture Crowd.

Nag, M. (2014). The Gadget Blog. [Online] Available at: <u>http://thegadgetflow.com/blog/20-amazing-kickstarter-tips-can-</u> <u>turn-crowdfunding-journey-mesmerising-ride/</u> [Accessed 14 05 2015].

OANDA (2015). Oanda. [Online] Available at: <u>http://www.oanda.com/currency/converter/</u> [Accessed 16 05 2015]. Paul, S., Whittam, G. and Wyper, J. (2007). Towards a model of the business angel investment process. Venture Capital: An International Journal of Entrepreneurial Finance, 9(2), 107-125.

Pearson, R. K. (2003). The Influence of Outliers. In: K. F. Johnson & S. M. Lin (eds). Methods of Microarray Data Analysis III, 43-56.

Peng, C.-Y. J. and So, T.-S. H. (2002). Logistic regression analysis and reporting: A primer. Understanding Statistics: Statistical Issues in Psychology, Education, and the Social Sciences, 1(1), 31-70.

Phillips, R. (2005). Pricing and Revenue Optimization. Stanford University Press, 78.

Pohlman, J. T. and Leitner, D. W. (2003). A comparison of ordinary least squares and logistic regression. The Ohio Journal of Science, 103(5),118-125.

Prowse, S. (1998). Angel investors and the market for angel investments. Journal of Banking & Finance, 22, 785-792.

Rakotomalala, H. (2015). Make a champ. [Online] Available at: <u>http://makeachamp.com/blog/a-simple-formula-for-writing-brilliant-crowdfunding-campaign-titles</u> [Accessed 14 05 2015].

Roller, S., Schulte im Walde, S. and Scheible, S. (2013). The (un) expected effects of applying standard cleansing models to human ratings on compositionality. Georgia, 32-41.

Saxton, G. D. and Wang, L. (2013). The Social Network Effect: The Determinants of Giving Through Social Media. Nonprofit and Voluntary Sector Quarterly, 1-13.

Schwienbacher, A. and Larralde, B. (2010). Crowdfunding of Small Entrepreneurial Ventures. Handbook of Entrepreneurial Finance.

Shadish, W. R., Cook, T. D. and Campbell, D. T. (2001). Experimental and Quasi-Experimental Designs for Generalized Causal Inferences, Berkeley: CA: Houghton Mifflin.

Smallbone, D. and Welter, F. (2001). The role of government in SME Development in transition economies. International Small Business Journal , 19(4), 63-77.

Sorensen, I. E. (2015). Go Crowdfund Yourself: Some Unintended Consequences of Crowdfunding for Documentary Film and Industry in the UK. MoneyLab Reader:An Intervention in Digital Economy. Institute for Networked Cultures, 268-280.
Stark, M. and Mason, C. (2004). What do investors look for in a business plan?. International Small Business Journal, 22(3), 227–248.

Steyerberg, E. W., Eijkemans, M. J. and Habbema, D. F. (1999). Stepwise selection in small data sets: a simulation study of bias in logistic regression analysis. Journal of clinical epidemiology, 52(10), 935-942.

Tiwari, K. et al. (2007). Selecting the Appropriate Outlier Treatment for Common Industry Applications. Statistics and Data Analysis.

Unesco (2006). Understanding Creative Industries: Cultural statistics for publicpolicy making. Global Alliance team. [Online]. Available at: http://portal.unesco.org/culture/es/files/30297/11942616973cultural\_stat\_EN.pdf/ cultural\_stat\_EN.pdf [Accessed 16 05 2015].

Valanciene, L. and Jegeleviciute, S. (2013). Valuation of crowdfunding: benefits and drawbacks. Economics and Management, 18(1), 39-48.

Van der Pol, H. (2007). Key role of cultural and creative industries in the economy, Canada: UNESCO Institute for Statistics.

Wardrop, R., Zhang, B., Rau, R. and Gray, M. (2015). Moving Mainstream: The European Alternative Finance Benchmarking Report. Ernst and Young.

Wemakeit I (2015). Wemakeit. [Online] Available at: <u>https://wemakeit.com/</u> [Accessed 10 04 2015].

Wemakeit II (2015). Wemakeit Press Release. [Online] Available at: <u>http://downloads.wemakeit.com/150204\_wmkt\_PR\_e.pdf</u> [Accessed 03 04 2015].

Wemakeit III (2015). Wemakeit. [Online] Available at: <u>https://wemakeit.com/pages/about?locale=de</u> [Accessed 14 05 2015].

Wemakeit IV (2015). Wemakeit. [Online] Available at: <u>https://wemakeit.com/pages/guidelines?locale=en</u> [Accessed 14 05 2015].

Wheeler, D. J. and Chambers, D. S. (1992). Understanding statistical process control. 2nd ed. Knoxville, Tenn: SPC Press.

Wilson, N. C. and Stokes, D. (2005). Managing creativity and innovation and Enterprise Development. Journal of Small Business, 12(3), 366 - 378.

Wolfson, S. M. (2012). Crowdsourcing and the law, Texas.

Wolfson, S. M. and Lease, M. (2011). Look before you leap: legal pitfalls of crowdsourcing, 1-10.

World Bank (2013). Crowdfunding's Potential for the Developing World, Washington DC: infoDev.

Xu, A. et al. (2014). Show me the money!: An analysis of project updates during crowdfunding campaigns.

Zopa (2015). Zopa. [Online] Available at: <u>http://www.zopa.com/loans</u> [Accessed 14 05 2015].

Zvilichovsky, D., Inbar, Y. and Barzilay, O. (2014). Playing Both Sides of the Market: Success and Reciprocity on Crowdfunding Platforms, Tel Aviv.

# Appendix

# Appendix A: crowdfunding project examples on wemakeit

## Les Réveries d'Eve, bijoux

About flackers and Comments

Je southalte créer la nouvelle collection de bijour des l'évaires d'twa, entre nive et poierie. Le projet incht également des fonds pour réaliser ut shooting photo professionnel.

> of CHF 5'000 pledged

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Project Status

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#### De quoi s'agit-il ?

Mon projet me permettra de développer plus professionnellement na marque de bipace Les l'éverses d'hes. Nes bipas sont crées à partir de matériaus précieuses. L'aire largent, le vernes (argent plaqué or) et pierres semiprécieuses. L'aire les petres transluciées et lucineuses, qui sont conne des petits galets colorés posés délicatement sur la peau. Je raconte des hotoines à travers nes collections, Le soubsite mettre en scère un monde taritôt étrange tantôt enchante selon les saisons et voire participation me permettin de réaliser ce projet.

Non projet consiste égulement à lever des fands pour skaliser le shooting photo de la nouvelle collection hiver 2014 avec une équipe de professionnels et normegulos.

#### Pourquoi devriez-vous soutenir ce projet ?

Je crée des bijoux en matériaux précieux. Cependant, je dois souncer les fonds pour acheter la matière prenière sount de créer les plèces, ce qui est passablement lourd financièrement.

Mex bijous sont de belles pléces en séries limitées qui ne ressemblent pas aux nanques de la concommiton de masse, in souterant ce projet, yous souteres la petite créstion locale qui ("espère deviendra grande.

Ce projet comprend également des fonds destinés au shooting photo pur une équipe professionnelle qui ne permettra d'avoir de belles images à montrer aux journalistes et magazines pour faire parter de ma nurque.



Benards 20.-1 / 10 taken CHI. 60.-2 / 30 taken CHE 100.-55 / 30 taken OfF Merci infiniment i Vous receiver un délicat bracelet en argent avec une pierre seni-précierse. 150.-250.-T I SH Andrew 1946 CHE 4 / 10 taken 350.-DIF 1/4 taken Vuus êtes non invité i Vous receivez un nas-du-cou en argent sivec une pierre semi-précieuse et une invitation à assister au shooting photo de la nouvelle collection?

pect ended successfully on 2014-05-31

Pledged without rewards: CHF 1'305.

#### About the Initiators



Urbanne dana Tânwa, senaible à la poèsse des voltes. La créatrica de bujars generative Shvia Bantagalla razonte son survers à fraves des bujars, hornés à Londres et Múan, cette desgrans aplicationés en huist (caliera et décrés de latoie as marque Las Méantes d'Une sins dé proposes des bujars précieux où poèsse nite even élégance.

www.reveriesdeve.com

#### make it we

Jonny und Jenny

Jonny, Unbrauchbar, Große Stadt, Sucht Ideale, Will richbiger Mann seint Gescherlerter Massennoblisierungsversuch, Zieht allein aufs Land, Leid Seenannadussen auf Acker, Irrift Jenty.

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Wir organisieren für Dich eine ecklusive Filopreview in Seisein der Künstler in Berlin. Und du erhältst eine handsignierte DVD.

500

Du ertiet die Original-Matrosenmütze von Jonny den Seenann.

3 / 50 taken

5 / 30 taken.

4 / 15 taken

9/30 taken

1/7 taken

073 taken

4/5 taken

1./ 3 taken

0/1 taken

### Warum «Jonny und Jenny»?

Ein alter Chinese erzählte uns eine Geschichte. Von einem Mann, der auszleht zu einer Prüfung, unterwegs krank wird und von einer jungen Frau gefunden wird. Sie verlieben sich. Versprechen sich ewige Liebe.

Diese alte, einfache Geschichte faszinierte uns. Wir machten uns auf die Suche, was es eigentlich heute bedeutet, einen «Auftrag» zu haben, was es bedeutet, konsequent zu handeln, sich ewige Liebe zu schwören. Wir schrieben eine Geschichte, in der wir sowohl die Sehnsucht nach alten festen Strukturen, als auch deren Unvereinbarkeit mit unserer postmodernen Realität verhandeln.



#### Wer sind wir?

Wir sind Alexandra und Jakob. Wir haben in den letzten drei Jahren an der HfS «Ernst Busch» Berlin Theaterregie und Schauspiel studiert. Dies ist unser erster Film. Wir haben zusammen das Drehbuch und Konzept entwickelt. Unser kleines Team: Zwei Schauspieler, Harry und Anna Sophie, Kameramann Sebastian. Tonmann Lukas. Und ein paar Dorfbewohner aus Brandenburg, die auch bei dem Film mitspielen werden.



A project by Alexandra Martini and Jakob Roth, film and art, Berlin.