

CRITICAL ANALYSIS OF CROWDFUNDING AS AN
ENTREPRENEURIAL TOOL IN THE PARTICULAR CASE
OF PORTUGAL

Gonçalo Cabrita Maciel Soveral

Dissertation submitted as partial requirement for the conferral of

Master of Science in Business Administration

Supervisor:

Prof. Renato Telo de Freitas Barbosa Pereira, ISCTE Business School, Departamento de
Marketing, Operações e Gestão Geral

September 2014

**CRITICAL ANALYSIS OF CROWDFUNDING AS AN
ENTREPRENEURIAL TOOL IN THE PARTICULAR CASE
OF PORTUGAL**

Gonçalo Cabrita Maciel Soveral

Dissertation submitted as partial requirement for the conferral of

Master of Science in Business Administration

Supervisor:
Prof. Renato Telo de Freitas Barbosa Pereira, ISCTE Business School, Departamento de
Marketing, Operações e Gestão Geral

September 2014

Abstract

Crowdfunding is a new way of financing any type of entrepreneurial project that innovates by using the crowd as its source of finance, communicating through the internet, and in this way reaching a larger audience. Crowdfunding has its origins in the concepts of Microfinance and Crowdsourcing. The rewards given to investors assume the form of financial, material or intangible recompenses.

The current economic situation in Europe and particularly in Portugal renders the study of alternative sources of finance, such as Crowdfunding, of the utmost importance. The fact that Crowdfunding is a very recent phenomenon and has been subject of little academic research, especially in the case of Portuguese Crowdfunding, adds to the need of further study on the subject.

It is in this context that this work will attempt to answer the following research questions: What variables / business attributes have a relevant influence in a Crowdfunding campaign in the specific case of Portugal? To what amount of capital is it currently viable for a company/start-up to use Crowdfunding in Portugal? What kind of projects are more likely to engage the Portuguese public and gain its input (both financial and of other types)?

This research will provide extensive literature review on the Crowdfunding theme, its origins, evolution, and current state, will provide contextualization for the case of Portugal, and will analyze data from the largest Crowdfunding platform in Portugal in order to answer the research questions.

Key words: Crowdfunding, Microfinance, Entrepreneurship, Crowdsourcing

JEL Classification Codes: G32, L26

Resumo

Crowdfunding: um novo meio de financiar qualquer tipo de projecto empreendedor, que inova ao utilizar o público como fonte de financiamento e ao comunicar através da internet de forma a alcançar uma maior audiência. O Crowdfunding tem as suas origens nos conceitos de Microfinança e Crowdsourcing. As recompensas recebidas pelos investidores em projectos de crowdfunding podem assumir forma financeira, material ou ser recompensas intangíveis.

A actual situação económica na Europa, e em particular em Portugal, torna fulcral o estudo de fontes alternativas de financiamento, como o Crowdfunding. O facto do Crowdfunding ser um instrumento tão recente e não ter uma pesquisa académica suficientemente desenvolvida a seu respeito, particularmente para o caso do Crowdfunding Português, aumenta a necessidade de aprofundar o estudo do tema.

É neste contexto que este trabalho procurará responder às seguintes questões de pesquisa: Que variáveis / atributos de negócio têm influência / relevância numa campanha de Crowdfunding para o caso particular de Portugal? Qual o montante de capital que é presentemente viável para uma empresa angariar em Portugal através de Crowdfunding? Que tipo de projectos mais facilmente atraem a atenção do público português juntamente com a sua contribuição (financeira ou de outro tipo)?

Este é um trabalho que fornece uma extensa revisão de literatura sobre o tema do Crowdfunding, as suas origens, evolução e estado actual. Fornece também uma contextualização para o caso particular de Portugal e uma análise de dados da maior plataforma de Crowdfunding nacional o que permitirá responder às questões de investigação.

Palavras-chave: Crowdfunding, Microfinança, Empreendedorismo, Crowdsourcing

Códigos de Classificação JEL: G32, L26

Agradecimentos

À minha família, amigos, ao Professor Renato e Directores da PPL por todo o apoio na realização deste trabalho.

Index

1. Introduction.....	1
2. Problem Statement	3
3. Research Questions	3
1. Literature Review	4
4. Emergence of new forms of finance	4
5. Definition of Crowdfunding.....	5
6. Evolution of the definition of Crowdsourcing to Crowdfunding	7
6.1 Types of Reward.....	8
7. Origins of Crowdfunding.....	9
7.1 Crowdsourcing.....	9
7.2 Microfinance and Bootstrap Finance	10
8. Pre-requisites of Crowdfunding	11
9. Key drivers of Crowdfunding Success.....	12
10. Summary of Key findings on CF Success drivers.....	16
11. Why use Crowdsourcing/Crowdfunding	17
12. Crowdfunding Industry Report.....	18
12.1 United States.....	18
12.2 Europe	19
12.3 Portugal	20
13. Main Crowdfunding platforms in Portugal.....	23
14. The Importance of Entrepreneurship.....	25
14.1 What is Entrepreneurship?	25
14.2 Contribution of Entrepreneurship to Economic development	26
15. Entrepreneurial Financing Tools.....	28
15.1 Owners Capital	28
15.2 Banks	28
15.3 Angel investors.....	28
15.4 Venture Capital.....	28
15.5 Trade Credit.....	29

15.6	Leasing.....	29
16.	Crowdfunding as an Entrepreneurial tool.....	29
16.1	Crowdfunding as a financing tool.....	29
16.2	Crowdfunding as a Marketing tool.....	30
II.	Data Analysis	31
17.	Study's objective	31
18.	Methodology and Method	32
Method.....		32
Methodology		33
19.	Evolution of Crowdfunding Success Rate in Portugal.....	34
20.	Venture Categories in the Portuguese market and respective Success Rates.....	36
21.	Financing Time Span and its influence on Success rates.....	40
21.1	Time Span influence in the Success Rate according to project category	41
21.2	In-depth analysis of the relation between Time Span/Suc.Rate/Category.....	43
22.	Target capital and its influence on Success rates.....	44
22.1	Average Capital of a Successful project according to category	45
22.2	In-depth analysis of the relation between Target Capital/Suc.Rate/Category ...	46
23.	Number of Fans and its influence on Success rates	48
23.1	Average Number of Fans of a Successful Project according to Category	50
24.	Results Discussion.....	52
25.	Implications	54
26.	Conclusion	56
	References.....	58

1. Introduction

This work is a research on the potential utility of Crowdfunding for the particular case of the Portuguese business environment. The objective of this research is to investigate, relate, and define the variables that characterize the business environment, the companies, and the entrepreneurial projects that make the most use of Crowdfunding as a financial and entrepreneurial resource in detriment of the traditional financial tools, such as commercial banking and business angels.

The Portuguese economic tissue is characterized by a very significant share of SMEs (99.9% of the companies in Portugal are micro and SMEs according to INE's 2012 Portuguese Companies Report¹) and by the increasingly stronger phenomenon of entrepreneurship which results in a diverse and internationalized set of start-up companies. These kinds of ventures have by nature a significant need of investment and start-up capital in order to develop new projects, which are difficult to obtain due to the lack of collateral, insufficient cash-flows and the asymmetry of information for the investors (Cosh *et al.*, 2009). These factors along with the impact of the financial crisis that began in 2008 and which effects are still presently felt have rendered the access to capital by SMEs, start-ups and entrepreneurs very difficult via traditional financial institutions. Traditional financial institutions can be classified in broad groups as: Depository (banks, credit unions), Contractual (insurance companies, pension funds) and Investment institutions (investment banks). According to the 'Internationalization opportunities Report 2011'² by the European Union, the lack of financing is perceived by companies and entrepreneurs as the third most relevant obstacle to the internationalization of European SMEs.

In addition to the factors previously stated, the increasingly observable phenomenon of entrepreneurship is gaining speed across Europe and the World³. With more and more individuals choosing to create their own jobs and businesses through the launching of start-up companies, a market gap was created allowing the development of alternative

¹ Empresas em Portugal 2012 - INE

² http://ec.europa.eu/enterprise/policies/sme/market-access/files/web_internationalisation_opportunities_for_smes_final_report_aug_2011_en.pdf (pag 48) (29/05/2014)

³ <http://www.oecd.org/std/business-stats/entrepreneurshipataglance.htm> (29/05/2014)

financing entities, which help businesses that would otherwise possibly be neglected by ‘mainstream’ financial institutions.

Another important factor to take into account is the current social and business environment in which the customer is no longer viewed as a mere observer, the market is now more customer dominated, and the wishes and desires of the customer are more important than ever. It is also in reference to this increased importance of the customer that the concept of Crowdsourcing and Crowdfunding appear. Both of them provide a unique form of interaction between companies and customers and/or users, since customers can have a direct connection to the company and can be actively participant in the development, production and promotion of a product/service, which is not possible through other means of financing.

In the particular case of Portugal research on the subject of Crowdfunding is still embryonic (according to our literature review) and the business landscape is quite different from the one in North America and in the most developed countries in Europe (for which much of the research is directed). It is thus important to study the viability of obtaining capital through Crowdfunding and also the environmental variables / business attributes that affect the success of such Crowdfunding campaigns in Portugal. In this fashion, a deeper research in this area will allow Portuguese entrepreneurs to take the most advantage of this new form of financing. Taking into account all of the influencing factors mentioned above, the problem statement and research questions are defined as follows:

2. Problem Statement

Is Crowdfunding an already viable funding option for Portuguese Entrepreneurs and SMEs? If so, to what business attributes is this form of funding sensitive to?

3. Research Questions

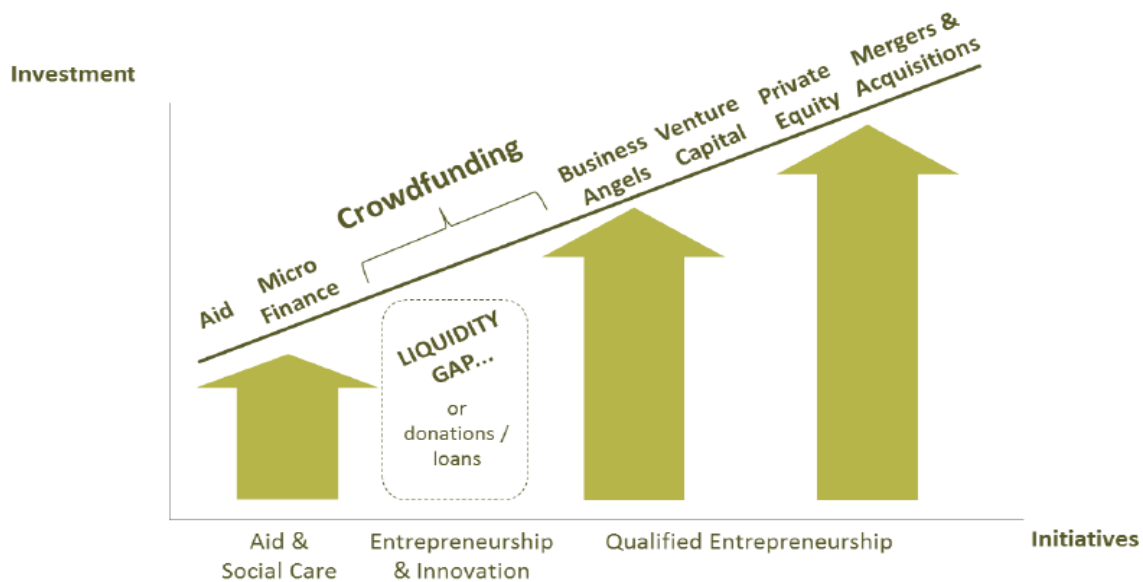
- What variables / business attributes have a relevant influence in a Crowdfunding campaign in the specific case of Portugal?
- To what amount of capital is it currently viable for a company / start-up to use Crowdfunding in Portugal?
- What kind of projects are more likely to engage the Portuguese public and gaining its input (both financial and of other types)?

I. Literature Review

4. Emergence of new forms of finance

When starting a new venture one of the main problems that an entrepreneur faces, if not the major one, is attracting the external needed funding to finance the initial stages of said venture (Belleflamme *et al.*, 2014). According to Cosh *et al.*, (2009) this difficulty is mainly related with three factors: the lack of collateral common to most startup ventures, the lack of cash flows and the asymmetry of information between the venture and investors.

As stated by Schwiendbacher and Larralde (2010), before the arrival of Crowdfunding entrepreneurs were usually forced to rely on their own savings and on the investment of family and friends in order to start their ventures, which is in its own way a type of Crowdfunding where the crowd is composed by the close network of the entrepreneur, such as his friend and family circle. The authors also mention the extensive use of bootstrapping techniques by entrepreneurs in order to obtain the needed capital. This happened because the traditional financial system, even though efficient in gathering investors for larger sums of capital (VC funds and banks), does not answer in a sufficient way the needs of entrepreneurs that seek smaller amounts of capital for innovative entrepreneurial ventures. On the other side of the financial spectrum from large financial institutions, we can find sources of fund raising like financial aid and Micro-finance which do not target specific needs of the entrepreneur and do not constitute a viable alternative for most innovative and entrepreneurial ventures. Therefore there is this gap in the needs of entrepreneurs that is not efficiently satisfied by the traditional financial system. It is in this context that the concept of Crowdfunding appears.



Graphic 1 – Gap in the Financial System (Source: PPL)

5. Definition of Crowdfunding

Crowdfunding is a way for entrepreneurs to raise capital for specific projects or startup companies by presenting their project and requesting investment directly to the general public, through the internet, eliminating the need for any of the traditional financial intermediaries.

The concept of Crowdfunding is very recent and still a work in progress; therefore finding an universal definition of crowdfunding can be an eluding task. Nevertheless in recent years some authors have formed several widely accepted definitions for the concept of crowdfunding.

According to an early definition by Schwienbacher and Larralde (2010), Crowdfunding can be defined as the funding of a project or venture by a group of individuals (not traditional financial institutions), where there is no intermediation between the entrepreneur and the investors (the crowd) and where communication between the two parties is typically made through the internet.

The definition of Crowdfunding was later on extended, from the definition of crowdsourcing by Kleemann *et al.*, (2008), by P. Belleflamme, Lambert and Schwienbacher (2014), that defined Crowdfunding as: ‘an open call, mostly through the

internet for the provision of financial resources either in the form of donation or in exchange for the future product or donation or some sort of reward to support initiatives for specific purposes’.

In reference to the previous definition of Crowdfunding, Mollick (2014) argues that since crowdfunding covers so many topics across different disciplines, it is preferable, for the study of new ventures and entrepreneurial finance where crowdfunding is particularly salient, to use a narrower definition of crowdfunding.

Ethan Mollick’s definition of Crowdfunding in an entrepreneurial context tries to provide specificity while leaving enough room for the evolution of the concept and reads as follows: ‘Crowdfunding refers to the efforts by entrepreneurial individuals and groups – cultural, social and for-profit – to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the internet without standard financial intermediaries’ (Mollick, 2014: 2).

Crowdfunding can be divided into many different categories, which can be helpful in defining what type of crowdfunding venture is being dealt with. Firstly and most relevant to this study is to differentiate between *ex post facto* and *ex ante* crowdfunding. As defined by Kappel (2009), *ex ante* crowdfunding occurs when investors participate in a project providing decisive input besides capital, helping create what will be the final product or service, as opposed to *post facto* crowdfunding where investors/customers simply finance an already finished product.

A Crowdfunding venture or Platform is also usually referred to by the type of reward offered to investors. The four types of reward that will be analyzed in further detail later on, are: Lending, Reward, Equity and Donation. Each platform can choose to offer only one or different reward model options to its users, the same choice applies to any Crowdfunding venture but limited to the options offered by the platform where the venture is inserted.

Regarding the funding scheme, Crowdfunding ventures and platforms can be divided into three categories. The existent three models are: ‘All-or-Nothing’ where the venture defines a goal and is only given access to the capital if that goal is reached; ‘Keep-it-all’ where the capital raised is given in the end of the raising period independently from

whether the goal has been reached or not; and ‘Bounty’ where funds collected for an idea or project are given to the first entrepreneur to complete it.

6. Evolution of the definition of Crowdsourcing to Crowdfunding

		<u>Crowdfunding Definition</u>	
<u>Authors</u>	<u>Crowdsourcing</u>	Jeff Howe (2006)	‘refers to using crowds as a source of ideas, feedback and solutions in order to develop corporate activities’
		Kleemann (2008) CS	‘Crowdsourcing takes place when a profit oriented firm outsources specific tasks essential for the making or sale of its products to the general public (the crowd) in the form of an open call through the internet, with the intention of animating individuals to make a [voluntary] contribution to the firm’s production process for free or for significantly less than that contribution is worth to the firm’
		Belleflamme <i>et al.</i>, (2014) CS	‘refers to using crowds as a source of ideas, feedback and solutions in order to develop corporate activities’
	<u>Crowdfunding</u>	Schwienbacher and Larralde (2010) CF	‘the financing of a project or venture by a group of individuals (not traditional financial institutions), where there is no intermediary between the entrepreneur and the investors (the crowd) and where the communication between the two parties is typically through the internet’
		Mollick (2014) CF	‘Crowdfunding refers to the efforts by entrepreneurial individuals and groups – cultural, social and for-profit – to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the internet without standard financial intermediaries’
		P. Belleflamme <i>et al.</i>, (2013) CF	‘an open call, mostly through the internet for the provision of financial resources either in the form of donation or in exchange for the future product or donation or some sort of reward to support initiatives for specific purposes’

Table 1 – Evolution of the definition of Crowdfunding

6.1 Types of Reward

Having already established the definition, and therefore the main goal, of crowdfunding - to raise capital - it is now important to analyze how an entrepreneur can reach that goal. In order to captivate the general public's interest and attract investment, crowdfunding campaigns can opt by one of four methods of reward for the investors' contribution. According to Mollick (2014), Crowdfunding can operate under four different categories:

- Reward based Crowdfunding, where besides offering the products or services proposed, investors often get some sort of extra reward like meeting the author, autographed products, being credited in a movie or giving creative input in the design process of the product.
- Lending Model, where financial return from the profits generated by the project is promised as reward from investment. In this case the investment functions like a loan.
- Equity based Crowdfunding, where funders are treated as investors and are rewarded in the form of Equity stakes of the company organizing the Crowdfunding campaign.
- Donation based Crowdfunding, which provides investors with intangible rewards, such as the satisfaction of participating in a project. This type of Crowdfunding model is mostly used in philanthropic ventures with little or no profit orientation.

7. Origins of Crowdfunding

Crowdfunding as a concept was built based on two major influences: the concept of Microfinance (Morduch, 1999) and the concept of Crowdsourcing (Kleemann 2008; Poetz and Scheier, 2012). Nevertheless Crowdfunding represents an independent and new concept made possible by the growing number of sites and platforms dedicated to this practice and development of web 2.0 which is characterized by the behavior and roles of the users, where they are no longer a passive agent and become active in the development of content to the web.

7.1 Crowdsourcing

First referenced by Jeff Howe and Mark Robinson in the 2006 June issue of Wired Magazine, Crowdsourcing, which ‘refers to using crowds as a source of ideas, feedback and solutions in order to develop corporate activities’, can be considered as the ‘parent’ notion for Crowdfunding. Crowdsourcing was also defined by Kleemann *et al.*, (2008: 2) in the following manner: ‘Crowdsourcing takes place when a profit oriented firm outsources specific tasks essential for the making or sale of its products to the general public (the crowd) in the form of an open call through the internet, with the intention of animating individuals to make a [voluntary] contribution to the firm’s production process for free or for significantly less than that contribution is worth to the firm’. This group of consumers that contributes by performing specific tasks useful to the company, is crucial to the proper working of Crowdsourcing and was defined by Kleemann *et al.*, 2008 as ‘the working consumer’. According to the author the three characteristics of the working consumer are:

- The working consumer takes part in the production process and creates value for the venture;
- The capabilities of the working consumers can be considered as valuable assets;
- They are integrated into corporate structures and their actions can be monitored as if they were employees.

It is important to mention that these groups of working consumers, communities or simply crowds, that have been a resource virtually untapped until the emergence of this concept are now becoming a commodity increasingly harder to access, with the increase of interconnectedness of our society and the emergence of crowdsourcing and crowdfunding. Benkler (2006: 76) summarized this thinking in the following manner: ‘Given the zero cost of existing information and the declining cost of communication and processing, human capacity becomes the primary scarce resource in the Networked information economy.’

All these concepts (crowds, working consumer, and crowdsourcing) were the established base that allowed the emergence of crowdfunding and still share many of its defining characteristics. The difference between Crowdfunding and Crowdsourcing is conceptual and lies mostly on the type of contribution made by consumers, that in the case of crowdfunding can also be monetary, and the fact that in the case of Crowdfunding, the role of the founder / entrepreneur is not mainly developed by big/medium companies (as it happens in Crowdsourcing) but also by small businesses and entrepreneurs trying to start up their own ventures.

7.2 Microfinance and Bootstrap Finance

According to Brandsma and Chaouli (1998) and Morduch (1999) Microfinance is a form of finance that is based on providing financial loans to the poor and to those excluded from the traditional financial system, mainly due to the lack of collateral. Even though it is not focused on the ‘poor’, it is in this way that Crowdfunding draws on the concept of microfinance, since it also takes the emphasis out of the traditional ways of accessing the credit eligibility of an entrepreneur, giving an opportunity to new ventures that otherwise would not be eligible for investment/lends in the traditional financial system. Like in microfinance, in crowdfunding ideas and projects are selected by their innovation level, interest for the consumer, social benefits and not only by the

collateral presented and expectation of payback, which can be many times inexistent or simply intangible.

According to Belleflamme, Lambert and Schiewnbacker (2014), from a purely financial perspective Crowdfunding is closely related with bootstrap finance, which according to the authors can be defined as ‘using internal rather than traditional sources of external financing’. The main connection between bootstrap finance and Crowdfunding lies in the broad range of alternatives to the traditional sources of external finance. However on the several papers published on bootstrapping finance the crowd has never been referenced as a possible source of capital.

8. Pre-requisites of Crowdfunding

Kleemann *et al.*, (2008) and several other authors argue that the main pre-requisite without which crowdsourcing, and therefore crowdfunding, would have not been possible is the development of web 2.0. It is argued that without the networks created by the web 2.0 it would have been much more difficult, if not impossible, for companies and entrepreneurs to reach networks of consumers with such efficiency. It is the bilateral nature of the communication in the web 2.0 that allows the forming of groups, ideas and communities enabling the processes of exchange inherent to the crowdsourcing and crowdfunding experience.

According to Surowiecki (2004), this phenomenon of interconnectedness provided by the technological developments in particular the web 2.0 is of great importance to crowdsourcing and therefore crowdfunding. Regarding the dynamics of groups, the author finds in his studies that groups or crowds have, under the right circumstances, the capability of solving problems quickly and efficiently, often even better than the most intelligent members of the group if isolated. It is the technology of web 2.0 that creates the possibility of forming big groups/crowds of similar individuals which can contribute with their own ideas and other forms of input to a project, creating the effect of crowd

wisdom referred by Surowiecki, which is what makes crowdsourcing and crowdfunding possible at their actual form and scale.

9. Key drivers of Crowdfunding Success

Over the past few years different authors have studied how different business and environmental variables influence the process of capital raising through crowdfunding, mostly focusing on the variables that have a direct impact on the chances of success for such ventures.

Belleflamme *et al.*, (2013) investigated the characteristics of individual crowdfunding practices and the drivers for fundraising success. The author studies individual entrepreneurs who launch their own Crowdfunding initiatives (without using traditional Crowdfunding platforms), by means of a hand collected sample of 44 initiatives. The author uses this sample to develop a theoretical model through which he concludes that non-profit organizations and ventures have a significant advantage over profit driven ones, and are much more likely to raise larger amounts of capital and therefore attaining their funding goals. The main conclusions of his paper are related with the higher adaptability of individual crowdfunding practices when compared with ventures based on standardized Crowdfunding platforms, and in the importance of Crowdfunding in the promotion of a product and in the validation of original ideas.

The advantage of non-profit organizations over their counter parts, studied by P. Belleflamme was also subject of study by Glaeser and Shleifer (2001) who, similarly, reached the conclusion that it is easier for a firm to attract capital by donors if a venture is not purely focused on profit.

Belleflamme, Lambert and Schwienbacher (2014) compare the two dominant forms of crowdfunding in the current context (pre-order Vs share of profits). The authors conclude that entrepreneurs prefer the pre-ordering model if the initial amount is relatively small, since it is more economically viable. However for larger sums of

capital the pre-order scheme would lead to distorted price discrimination. In this case it would be more beneficial for the entrepreneur to use the profit sharing model.

The previous work was not the first one to study the drivers and characteristics that lead to a successful Crowdfunding campaign. Mollick (2014) develops an empirical study in order to understand the underlying dynamics of success and failure among Crowdfunded ventures. Based on data collected from the Kickstarter platform, this study highlights the following determinants of success in crowdfunding: the personal networks of founders, and the signals of underlying quality of the project. The study also highlights the important role geographic distribution plays: ‘a strong geographic component to the nature of projects, with founders proposing projects that reflect the underlying cultural products of their geographic area’.

The role developed by geography was also studied by Agrawal, Catalini and Goldfarb (2011). The authors found through the study of the geographic dispersion of investors in an online Crowdfunding platform that geography is relevant to the success of a Crowdfunding campaign particularly in the early stages of financing. In the same paper it is also referenced that local investors ‘invest relatively early, and appear to be less responsive to the decisions by other investors’, implying that being in the right geographic region will lead to a better fundraising kick-off, and due to peer effect, it may lead to overall better chances of reaching the capital goal established for the venture.

Regarding the importance of social networks, an analysis deeper than the one by Mollick (2014) was provided by Lin, Prabhala and Viswanathan (2013). In their paper the authors study the market of peer-to-peer lending using the platform Prosper.com. The study focuses particularly in the role played by the online friendships of the borrowers (online social networks) as signals of credit quality. The conclusions reached are that the size and credibility of the borrowers’ social network has a significant impact on the probability of obtaining successful funding, on the resulting interest rates asked by lenders and finally can also be used as a predictor for the probability of the borrower defaulting on its loan. In all cases a larger and credible social network is proved to be related with a better outcome for both parts.

Another important determinant of the success for a Crowdfunding campaign was studied by Ward and Ramachandran (2010), who, by studying data from the music

Crowdfunding platform Sellaband, determined the extent to which the decision, made by an entrepreneur, of investing in a company or venture through crowdfunding is influenced by peer effects.

The importance of peer effects in driving the demand, according to the authors, is related with the limited amount of information available on each project and the high costs in attaining such information due to the great amount of different projects to learn about - information overload. Peer effects can occur from the investor communicating directly with peers about their experiences (previous or otherwise) with the product/crowdfunder or by observing the peers' consuming and investment decisions. In their paper the authors show that crowdfunders are influenced by the success/failure of similar projects and also that they use the actions of other crowdfunders as an information source to support their decision. Furthermore Ward and Ramachandran also found that investors are highly influenced by information aggregating devices (top 5 lists and blog updates) and that projects quickly go out of favor with the investor community unless they are able to maintain their funding drive.

Kuppuswamy and Bayus (2013) also studied the importance of social information and like Ward and Ramachandran, reached the conclusion that it plays a key role in the success of fundraising for a project. The authors focus their study not only on the social information but also on the peer effects that the availability of such information enables. The authors argue that 'Due to a diffusion of responsibility, many potential backers do not contribute to a project that has already received a lot of support because they assume that others will provide the necessary funding. Consistent with the deadline effect widely observed in bargaining and online auctions (Roth, et al., 1988; Ariely and Simonson, 2003), we also find that the bystander effects diminish as the project funding cycle approaches its closing date.' (Kuppuswamy and Bayus 2013: 7).

Ahlers *et al.*, (2012) focused on the importance of information being transmitted to the crowd. By studying Australian data (on equity Crowdfunding) identified as the main determinants for the success of CF initiatives: credible signs, quality of the start-up, and sound information disclosure to the crowd.

Finally, an important variable that can be decisive in attracting investors is the displayed passion the Crowdfunder has about his venture. The role and relationship between displayed passion, perceived passion, and the impact it has on business angels' interest

was studied by Cardon, Sudek and Mitteness (2009). In their paper the authors conclude that displayed passion is an important factor for the angels' investment decision, but unexpectedly this role can either be positive or negative. Nevertheless the positive correlation is of more importance to Crowdfunding, since the negative correlation between some aspects of displayed passion and the interest of business angels may be due, according to the authors, to the fact that angel may be weary of being (emotionally) manipulated by the borrowers. This is a characteristic that comes from being a professional evaluator of projects and entrepreneurs and therefore will find little correspondence in the Crowdfunding investor community.

When it comes to obtaining credit at a fare rate, consumer protection has been on the forefront of public discussion and regulatory debate, according to Hildbrand, Puri and Rochol (2011). An example of this is found in the creation of the Consumer Financial Protection Bureau in the USA by the president Barack Obama. Crowdfunding has been widely regarded as a viable option to the inefficient and many times corrupt traditional financial institutions. The authors find, through the study of data from online social lending platform Prosper.com that although crowdfunding represents a step in the right direction, the lack of regulation has resulted in a system where retail investors function as group leaders and certification agents. If not given the right incentives, this leads to a situation where they can be compelled to make inefficient lending decisions, resulting in irresponsible decisions that have consequences for the borrower and are replicated by other lenders.

10. Summary of Key findings on CF Success drivers

		<u>Key Findings</u>
<u>Authors</u>	P. Belleflamme <i>et al.</i>, (2013)	The fundraising advantage of non-profit organizations and ventures over profit driven ones. Higher adaptability of Individual CF practices over standardized platform based CF. Importance of CF in promotion and idea/product validation.
	Glaeser and Shleifer (2001)	Fundraising advantage of non-profit organizations over profit driven ones.
	Belleflamme, Lambert and Schwienbacher (2014)	The advantage of pre-order CF model over its counterpart, the share of profits model, for small amounts of capital. For larger amounts the share of profit model becomes more appealing to entrepreneurs due to the phenomenon of distorted price discrimination that the option of pre-order would cause.
	Mollick (2014)	Determinants of success in Crowdfunding: Founders Personal Networks, Signs of underlying quality of projects. Importance of the geographic component; project nature must be in line with the cultural characteristics of the community where it is placed.
	Agrawal, Catalini and Goldfarb (2011)	Geographic importance of crowdfunding related with the funding characteristics of local Crowdfunders. Compared to others, local Crowdfunders finance projects earlier and are less influenced by the decisions of others, leading to a more promising kick-off.
	Lin, Prabhala and Viswanathan (2013)	Size and Credibility of Crowdfunders' personal-social network directly influences the lenders decision to invest in the project.
	Ward and Ramachandran (2010)	Peer-effects are an important influencing factor in the Crowdfunders decision of financing a project. Peer effects can occur from direct Peer-to-Peer communication or by the observation of Peers consuming and investing decisions. Success or failures of similar projects are also an important influencing factor.
	Kuppuswamy and Bayus (2013)	The Peer effects can vary according to the time-frame of the project, and a perceived sufficient backing from the crowdfunding community can diminish the willingness of the backers to contribute.
	Ahlers et. Al (2012)	Transmission of information to the crowd. Determinants of success: Credible Signals, Quality of the project, Information disclosure to the crowd
	Cardon, Sudek and Mitteness (2009)	Displayed passion can play an important role influencing positively the backers to invest in a project/product.
	Hildebrand Puri and Rochol (2011)	Crowdfunding allows sidestepping some of the inefficiencies found in traditional financial institutions. Also has its own drawbacks derived from the lack of official certification agents.

Table 2 - Key findings on CF Success drivers

11. Why use Crowdsourcing/Crowdfunding

An important question that can be raised is: When does it make sense to use Crowdfunding instead of traditional sources of finance?

According to Kleemann *et al.*, (2008) the main reason for companies to crowdsource is connected with cost reduction issues, later on Schwienbacher and Larralde (2010) tackled this question and stated that the emerging characteristics are: when the amount of capital is reasonably low, when the project is original or interesting, and when the entrepreneurs search for funds are willing to extend their skill set and adapt their projects to the public. The authors also stress the importance of being able to build a community of Crowdfunders which allows them to enjoy additional utility from their participation, ultimately rendering Crowdfunding a more attracting source of financing.

The reason for using Crowdfunding can also lie in the inherent difficulty of finding capital for the development of particularly risky, or low profitable ventures. Crowdfunding has become an increasingly important source of financing in many different fields, such as movies and other arts, social causes and technology, which would otherwise struggle to gather the necessary funds. Wheat *et al.*, 2013 approaches the subject of crowdfunding through the eyes of the funding thirsty scientific community, providing incisive advice on how to successfully conduct a Crowdfunding campaign. The article addresses the main factors determining the success of CF campaigns in a scientific research setting. The crowd is defined as ‘a set of people engaged with a scientist and their research’, and the development of the crowd is deemed as an essential success driver for crowdfunding venture. This development is achieved through the outreach of the scientific community to the broad public through every means possible (Twitter, Facebook, blogs).

12. Crowdfunding Industry Report

Worldwide the dimension of capital raised through Crowdfunding has been experiencing an exponential growth. Evidence can be found in the Crowdfunding Industry Report (2012), where it is stated, based on empirical research, that Crowdfunding has raised 1.5 Billion USD in 2011, 2.7 Billion USD in 2012 and the projections for 2013 indicated a figure close to 5.1 Billion USD. The number of Crowdfunding Platforms operating worldwide on April 2012 was 452 and the growth of capital raised through such CFPs over the past years presented values of 38%, 45%, 47% and 54% for the years between 2008 and 2011. The year of 2012 was a major turning point to the Industry with a CAGR (Compound annual growth rate) of over 83% and also the first campaigns to hit targets of both 1 million and 10 million USD rose. An example of this evolution can be found in the NY Times article ‘3 years of Kickstarter’⁴ where the evolution of capital raised in the platform is demonstrated and a discrimination by category of projects allows to see the predominance of Film, Music, Design, Games, and technology projects.

Donation and Lending based CF platforms still represent a vast majority of the market, but due to recent developments, such as the JOBS Act, the equity category is experiencing a higher growth rate (over 300% in 2012, CIR). Individually, Reward-based model still represents the largest category in terms of overall number of Crowdfunding platforms.

12.1 United States

Since Crowdfunding first found most of its support in the United States, arguably thanks to the advanced development of online shopping and banking system, and on the other hand thanks to the entrepreneurial nature of the culture itself - the country presents a low score (46)⁵ in the uncertainty avoidance index of the Hofstede’s scale - US has been on the forefront of Crowdfunding and it is where this is at its most evolved stage in terms of amount of investment made through Crowdfunding. This statement is

⁴ <http://www.nytimes.com/interactive/2012/04/30/technology/three-years-of-kickstarter-projects.html>

⁵ <http://geert-hofstede.com/united-states.html> 16:05 PM 2/01/2014

supported by the CIR 2012 where it can be read that North America leads the crowdfunding market both in number of CFPs - over 200 - and capital raised - 1.6 B in 2012. All these factors make it important to study the evolution of Crowdfunding in the USA, not only the evolution of the concept, but also in order to use it as a barometer for the trends that will most likely affect the European and home markets.

In terms of value the North American Crowdfunding market experienced a growth of 105% during the year of 2012 representing 1.6 Billion USD raised through CF during that year (CIR 2012).

In recent times, the major development in crowdfunding is that it is already possible to buy equity through crowdfunding platforms, thanks to the ‘Jumpstart Our Business Startups (JOBS) Act’. This puts Crowdfunding, in the USA, at par with the traditional financial institutions and solidifies its position as one of the major forms of financing for small and medium entrepreneurial ventures. The JOBS act also opens a precedent that might push other countries to follow the USA in this matter.

The most prevalent Crowdfunding platforms in the USA are Kickstarter and Indiegogo having just these two platforms raised over 932 million US dollars (pledged) in the case of Kickstarter⁶ and just over 100 million for Indiegogo.

12.2 Europe

Europe has also played a pioneering role in what concerns Crowdfunding development and experimenting. Even though the differences in legislation between member states make it difficult to adopt an overall legal framework like the JOBS act, there has been a considerable evolution and growth of Crowdfunding throughout Europe. This is especially evident when analyzing amounts: the CF market in Europe grew at a rate of 65% in 2012 representing a value of 945 Million USD (CIR 2012).

Reflecting this growth, different crowdfunding platforms have, in recent years, emerged successfully across Europe and are capturing a greater share of new business than older more established CFPs (CIR 2012). This phenomenon has caught the attention and has been given due importance by different entities such as the European Commission. An

⁶ <http://www.kickstarter.com/help/stats?ref=footer> 16:00 PM 2/01/2014

example of this involvement can be found in the consultation⁷ realized by EC inviting stakeholders to share their views about crowdfunding during the year 2012. The attention recently given to the CF phenomenon can also be traced back by the numerous efforts made by EU to increase and foment entrepreneurship in the member states in order to regain sustainable economic growth in the Union.

Today the most prevalent Crowdfunding platforms across EU are⁸: Zopa, and RateSetter, both London based crowdfunding platforms; FundingCircle, and Auxmoney, being the last one a German based CF platform. According to the CIR 2012, Europe still only attains to 26% of the capital raised worldwide through crowdfunding against the 72% held by the USA, but this trend shows strong signs of being in the stage of reversal with Europe progressively gaining ground over the past few years.

Much like Portugal, the EU economy is heavily characterized by SME's. This type of company accounts for 99% of the total number of companies in the economy and are responsible for over half the jobs⁹. The difficulties this type of companies face in accessing capital through traditional financial institutions (previously explored), renders the development of alternatives like crowdfunding very important to the future of the economy of Europe.

12.3 Portugal

Portugal as a small country has fewer entrepreneurial ventures and is very limited when compared to the US or other European countries, so it is quite normal that crowdfunding platforms and the ventures that use them are of a smaller scale. Nevertheless the concept has been gaining momentum and has moved from embryonic stages to an experimental concept almost purely dedicated to social causes, to a more serious, entrepreneurial and business oriented type of financial tool. The number of successful Crowdfunded ventures has been exponentially expanding, as well as the number of platforms that potentiate this growth, the main ones being PPL and MassiveMov. According to CIR 2012 the number of CFPs in Portugal, in April 2012, had reached 6. It can be argued

⁷ http://ec.europa.eu/enterprise/newsroom/cf/itemdetail.cfm?item_type=252&lang=en&item_id=6974

⁸ <http://www.forbes.com/sites/groupthink/2013/04/23/crowdfunding-in-europe-the-top-10-peer-to-peer-lenders/>

⁹ <http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/crafts-micro-enterprises/>

that one of the major impediment for the development of Crowdfunding in Portugal is related with the relatively small percentage of the public that uses online banking and online payments, only just below 20% (Online payment Report 2012), when in countries like Sweden, UK, Norway, and Denmark this value averages well over 70% of the population.

In Portugal, of the four broad types of existing crowdfunding, the prevalent ones, under which most platforms operate, are the Lending model and the Rewards/Donation Model.

The fact that investors' reward for Crowdfunded projects in Portugal is still limited to these types of model, is also a limiting factor to the growth of Crowdfunding in the country, since it warns off many investors interested in venture capital. The reason for the difficulty in implementing the Equity Model, where individuals make an investment in return for a share in the profit generated by the company/project, lies in the lack of specific legislation on the subject, even though currently there is a 'Projecto de Lei' n° 419/XII waiting for approval in which there is a specific law for collaborative financing. If and when approved, it would provide specific legislation on the subject. Also the offering of shares by a company would imply the compliance of the platform with the requirements of the Portuguese Securities Exchange Commission - 'CMVM' - and therefore the registry of the Crowdfunding platform as a financial intermediary, which would constitute a difficulty and affect the simplicity and efficiency of the entire process.

The Lending Model, although more prevalent than the Equity model, is also difficult to implement in Portugal because it implies a monetary reward in the form of interest, and therefore is qualified, under Portuguese Law, as a credit or financial transaction which may be only done by authorized financial institutions. Nevertheless, the Pre-sale Lending Sub-model does not characterize as a financial transaction and therefore does not need to meet the requirements and authorization of CMVM. This is why this model has found popularity amongst Portuguese Crowdfunded ventures. This is corroborated by the data gathered in the crowdfunding platform PPL, which reveals a significant prevalence of this model if excluding the Donations model.

The most commonly used Crowdfunding reward model in Portugal is the Reward/Donation Model, confirmed by PPL data. This model is mostly used for the

support of various social causes and as a mean of gathering charitable donations for a specific event/cause. In this model the individual does not expect any financial return on his contribution to the cause/venture.

Lapa, a Portuguese Crowdfunding success story.

A recent example of a successful Crowdfunded Portuguese entrepreneurial venture can be found in the project ‘Lapa’¹⁰. This technological company created a device able to locate objects via GPS transmitters and an android application. Using an aggressive social platform and communication strategy, and the CF platform Indiegogo, LAPA was able to successfully raise awareness and the funds needed - 100.000 € - to launch the industrial production phase of its product.

¹⁰ <http://www.youtube.com/watch?v=6caT6QUS5rw>

13. Main Crowdfunding platforms in Portugal

Two of the main Crowdfunding players in Portugal are PPL and MassiveMov. These crowdfunding platforms have, in the past two years, started to gain ground against international competitors in the national market and have been responsible for raising almost 265.201 € in the case of PPL, and 133.988 € for MassiveMov, all in successfully financed projects. As stated before the majority of the projects financed in these platforms is asking for small sums of money and are mostly not very profit-oriented ventures. This corroborates the findings of Belleflamme *et al.*, (2013) and Glaeser and Shleifer (2001) about the advantage of non-profit oriented ventures when it comes to attracting investment. This orientation of crowdfunding initiatives can also be considered as an indicator of the early stage development that Crowdfunding is still in, in Portugal. Nevertheless these types of project have been promoting the growth and recognition of the platforms as viable and reliable paths for founders and investors to promote, find, and finance new entrepreneurial and more profit oriented projects.

Taking into account the stats displayed in the major Portuguese CF platforms and websites¹¹, some important information can be extrapolated about the Portuguese crowdfunding market.

Firstly the exponential growth is evident in the evolution of funded projects in PPL, that went from 73.034 € in 2012 to 205.564 € in August 2013. The rate of success in obtaining funds seems to be at par with Kickstarter and other major international CFPs, being about 50%, and not financed projects failing by a large margin while financed ones succeeding by small margins. Another characteristic that seems to be common to the Portuguese and North American markets (and other international markets as well) is the fact that projects with smaller goals present a higher success rate.

In Portugal, according to PPL and MassiveMov stats, the project categories that attract more supporters, more investment and represent most of the projects submitted are of cultural and social nature. Another important statistic gathered from PPL website is that a vast majority of investors has only participated in one project and less than 1% of the investors have invested more than 3 times. This is not necessarily a negative indicator

¹¹ <http://ppl.com.pt/pt/infographic>
<http://www.massivemov.com/blog/etiqueta/stats/>

since it can also be related with the fact that Portugal is still in the early stages of developing Crowdfunding, and since most Crowdfunders are still on trial with the concept, they have only experienced it a limited number of times.

Even though the stats for the Portuguese crowdfunding platforms present some positive indicators it is observable that the scale of business is not comparable to the rest of the European Crowdfunding players, for example Zopa, the largest European CF platform, gathered 160 million Euros, approximately 778 times the value of the largest Portuguese CF platform.

In Portugal is also possible to find smaller and more specialized Crowdfunding platforms. Due to their nature these platforms have only few projects and operate at a much smaller scale. Zarpante is a platform specialized in cultural projects and operates under the motto ‘democratize patronage’. One of the most interesting and innovative features of this platform is that it is focused on providing its services to all the Portuguese speaking community creating this way great opportunities for synergies and cross-cultural innovation.

Another interesting development in the field of Portuguese Crowdfunding can be found in the platform Nosqueremos.com. This platform is specialized in group financing of events such as concerts, parties and other cultural performances, allowing the public of different communities to bring and attend cultural events to their community. These events wouldn’t take place otherwise due to the size of the community and uncertainty of interest by the public.

Lastly we can find Olmo.pt which is a platform focused not only on Crowdfunding but also on Crowdsourcing, which has as main purpose to gather people, promote and carry on efficient organization of projects of social nature taking place in underdeveloped countries.

14. The Importance of Entrepreneurship

14.1 What is Entrepreneurship?

As it was already established, there is currently a strong need to find alternatives that allow for the funding of new ventures, projects, campaigns or companies, in other words, all types of entrepreneurship. So it is very important to understand the concept, in order to analyze the best way for crowdfunding to evolve and become an entrepreneurial tool.

Regardless of the importance increase and public attention entrepreneurship experienced in the past two decades, the concept is quite old. The first academic reference to the concept of entrepreneur is attributed to Cantillon (1680-1734) who distinguished three economic agents: Landowners, entrepreneurs and employees. According to the author, the entrepreneur can be defined as someone who engages in business facing outcome uncertainty.

Building on the accumulated knowledge on entrepreneurship Hébert and Link (1989) provide a synthetic definition for the identity and role of the entrepreneur: ‘the entrepreneur is someone who specializes in taking responsibility for and making judgmental decisions that affect the location, form, and the use of goods, resources, or institutions’.

More recently, the focus of the studies shifted from who the entrepreneur is and what he does, to a more broad focus on entrepreneurship and entrepreneurial processes.

Wennekers and Thurik (1999: 20) inspired by the research of Hébert and Link (1989) and others formulated the following definition of entrepreneurship:

‘Entrepreneurship is the manifest ability and willingness of individuals, on their own, in teams, within and outside existing organizations, to:

– perceive and create new economic opportunities (new products, new production methods, new organizational schemes and new product/market combinations) and to

– introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions.’

Shane and Venkataraman (2000: 2) defined entrepreneurship as ‘the processes of discovery, evaluation, and exploitation of opportunities’, opportunities that can turn into new products, services, production processes, strategies, organizational forms or markets that did not exist before.

Another definition for entrepreneurial activity can be found in the work of Reynolds (2005). Building on the previous authors’ definition Reynolds defined the entrepreneurial function as the discovery of opportunities and the subsequent creation of new economic activity, often via the creation of a new organization.

14.2 Contribution of Entrepreneurship to Economic development

Of the different studies focusing on entrepreneurship, Shane and Venkataraman (2000: 4) compiled some of the main reasons justifying the importance of entrepreneurship: *‘First, much technical information is ultimately embodied in products and services (Arrow, 1962), and entrepreneurship is a mechanism by which society converts technical information into these products and services. Second, entrepreneurship is a mechanism through which temporal and spatial inefficiencies in an economy are discovered and mitigated (Kirzner, 1997). Finally, of the different sources of change in a capitalist society, Schumpeter (1934) isolated entrepreneurially driven innovation in products and processes as the crucial engine driving the change process.’*

According to the author, entrepreneurial activity is at the center of the economic and social evolution of mankind, making it an indispensable field of research for a well-rounded knowledge of any business context.

In a more practical context, the impact that entrepreneurship has in the economy and society of a country is also of great relevance. Entrepreneurship is responsible for the creation of large scale employment opportunities. This happens due to the need for human capital by new ventures and star-ups trying to capitalize on entrepreneurial opportunities. The seizing of these entrepreneurial opportunities by entrepreneurs also makes entrepreneurship (both individual and corporate) one of the main sources of innovation in every field of business activity.

Entrepreneurship also has a positive impact in the economy through its wealth balancing power. Entrepreneurial activity contributes to the reduction of economic disparities, leading to more competition and an overall more competitive economy, as well as providing more flexibility and capacity of adaptation of the economy to any new challenges that may arise. Entrepreneurship creates wealth not only for the individuals but also for the country. Namely through the taxes paid, jobs created and the boost entrepreneurship provides to the country's export trade.

Finally entrepreneurship can also be a force for social change and improvement, through social entrepreneurship. With a particular increase in the last two decades, social entrepreneurship has been responsible for different ventures created with the intent of solving some of the most pressing social issues of our time. Good examples of social entrepreneurship can be found throughout most crowdfunding platforms that provide specific sections for the phenomenon. There are also platforms such as Startsomegood.com, Causes.com, Kiva.com (International) and Bes Crowdfunding and Olmo.pt (Portuguese) that specialize uniquely on providing their services to social entrepreneurs and the public who seeks to help them.

All reasons mentioned above gain an extra layer of importance when confronted with the present economic distress in the developed world, particularly in Europe. With increased competition in the major manufacturing industries by countries with lower production expenses, like China, India and Brazil, European Union has turned to Small businesses and entrepreneurial activity in general as the future of economic development and job creation in the region.

15. Entrepreneurial Financing Tools

When it comes to entrepreneurship tools, the most important, and for this research the most relevant, are financing tools. It is in this category that CF falls on, and through a comparative analysis against other types of financing it is possible to understand the advantages provided by CF that are not possible through other means. The importance of proper financing as an entrepreneurial tool cannot be understated as, according to Berger and Udell (1995), the access to financing is, along with bankruptcy and owners health, one of the main reasons for the failure of start-up ventures within the first years of activity.

The most relevant sources of financing for entrepreneurs, small business, and start-ups, can be identified as:

- 15.1 Owners Capital – Mainly used in the initial stages of the start-up firm, this source of financing is comprised by the owner's equity, loans and credit cards. In this category can also be included the capital invested by family members, friends and the affiliates of the firm - all sources of inside financing.
- 15.2 Banks – Undisputedly banks are the main source of financing for entrepreneurs in most developed countries. The importance of banks for entrepreneurs is not limited to the different financing options provided by these institutions, it is also found in the information that banks (as classic financial intermediaries) generate significant data about the entrepreneurial ventures they approve for financing. This greatly reduces the acquisition cost for information about the entrepreneurial venture, and therefore makes investors more likely to consider it as an option for their portfolio.
- 15.3 Angel investors – As defined by Leach and Melicher (2011) angel investors are individuals with access to considerable capital that operate as informal/private investors providing venture financing for entrepreneurs and start-up firms. Angel financing is usually characterized by an equity contract.
- 15.4 Venture Capital – Venture Capital is a type of financial capital typically used in the early stages of the start-up and is characterized by the high uncertainty of the investment and the possibility of high payout. Zider *et al.*, (1998) summarized

the mechanism of the venture capital industry in the following manner: ‘The venture capital industry has four main players: entrepreneurs who need funding, investors who want high returns, investment bankers who need companies to sell; and the venture capitalists who make money for themselves by making a market for the other three.’

- 15.5 Trade Credit – Used in later stages of the start-up lifecycle, this type of short-term financing is usually provided by suppliers of the firm and is a vital source of working capital for firms allowing for maneuverability during temporary financial constraints. Jeffrey H. Nilson (1999: 5) concisely defined Trade Credit: ‘...is a short-term loan a supplier provides to its customer upon a purchase of its product.’
- 15.6 Leasing – This asset based source of financing involves the purchasing of fixed asset by the lessor who then enters a rent contract with the borrower. These contracts define a payment schedule and most of the times include a buying option for the borrower at the end of the contract.

16. Crowdfunding as an Entrepreneurial tool

16.1 Crowdfunding as a financing tool

Crowdfunding cannot be included in any of the broad categories of financing previously mentioned since it constitutes its own category. Unlike other sources of financing, in the case of Crowdfunding the current stage of development of the venture is not very relevant, and the source of financing is the crowd, not banks, companies, or professional investors.

Advantages of Crowdfunding when compared to other sources of financing are related with the fact that it allows the entrepreneur to raise capital without necessarily giving up a percentage of equity, pre-selling his products or accumulating debt. Crowdfunding also constitutes a better way of locating investors in an efficient cost and time manner.

In terms of financing costs, Crowdfunding is also on its own category since it is the entrepreneur that decides what the payback in the investment should be. The payback can vary from a thank you note to a percentage of equity with returns comparable with high risk venture capital investments. In the case of Crowdfunding the only limit the entrepreneur has to take into account is what the crowd is willing to take in return for their investment.

The validation that a successful Crowdfunding campaign provides to a venture is also a useful financial tool since it allows for easier access to other forms of financing further down the line.

16.2 Crowdfunding as a Marketing tool

Regardless of its advantages as a financial tool, the importance of Crowdfunding expands beyond that role. As mentioned before, Crowdfunding has great utility as a marketing tool, its different facets can help any entrepreneur, regardless of his resources, in developing and promoting products and services that meet the need of his target market, by opening channels of direct communication to the public and integrating the feedback of the target market from the earliest stages of development.

Crowdfunding can be used as a powerful market research tool, allowing for easy and inexpensive access to market information in the targeted business field. Also, as previously explored, Crowdfunding allows the entrepreneur to engage the public, creating a lasting and profitable bond for both the venture and the public. These ideas and concepts were explored by Belleflamme *et al.*, 2014; Crowdfunding has the potential to improve an original concept or idea through the feedback and possibly crowdsourcing of the public. This idea of product testing was validated by Gruner and Homburg (2000) who found that interaction with the public / customers during the product development stage resulted in higher success rates for the products.

Besides being a feedback source from the public, Crowdfunding also works as a promotional tool, creating buzz around the new product, attracting attention of a larger audience with lower expenses than using traditional promotional tools (Lambert and Schwienbacher 2010).

II. Data Analysis

17. Study's objective

In the previous sections the concept of Crowdfunding was defined along with its drawbacks and advantages over other sources of financing, as well as its potential for more robust product development in terms of public acceptance. The importance of entrepreneurship as a means of creating a more robust and growing economy, in particular for the Portuguese case, also was explained. These two concepts and the connections they share provide the basis to understand the purpose and conclusions of this paper in the section that follows.

We can now start to define, and further develop, the objective this paper seeks to achieve. We will proceed with an empirical study based on the exploration of historic data of projects, successful and not successful, that passed through the Crowdfunding platform PPL. The analysis of this privileged source of information, along with the extensive review of academic literature already developed on the subject, will make possible to define and understand which business variables are relevant for the Portuguese business environment and the impact that those variables have on success chances of an entrepreneurial venture reaching its funding objectives through Crowdfunding. Since the data is representative - PPL is a country wide company with more than 50% of the CF market in Portugal - it will be possible to define a specific reality for the Portuguese Crowdfunding business environment that can, in future research, be compared to the reality of studies already developed for other countries.

The expected findings of this study consist in the extrapolated set of relevant variables, and how they are expected to affect the Crowdfunding process, that along with the accumulated knowledge from extensive literary review, will allow Portuguese Crowdfunders and Crowdfunders to draw a group of useful guidelines for a successful project.

In its whole, the findings and conclusions of this work are meant to have real world applicability for entrepreneurs looking to take advantage of this new and understudied form of financing, allowing them to maximize their chances of a successful CF campaign and the overall chances of success for their new ventures.

18. Methodology and Method

At this point, it becomes important to plan, explain and justify the design of the research, the collection of data, and the procedures used to analyze that data. Nevertheless, before diving into these themes it is essential to set a foundation by explaining the basic concepts of ‘Dissertation’, ‘Method’ and ‘Methodology’.

Amongst the different formats a Master Thesis can assume: Case study, Business Plan, In-company Project and Dissertation, the chosen format was the latter. This thesis assuming the form of a dissertation means that: a topic is generated or chosen by the author and a complete investigative project is planned and carried out with the intent of deepening the knowledge on that particular topic. This particular dissertation will focus on the role of Crowdfunding in Entrepreneurship, its role and potential benefits particularly in the Portuguese economy and the variables that affect the success of a Crowdfunding Campaign.

Method

The method is always based on the analysis of collected data but the techniques used to collect and analyze data differ according to which type of analysis is chosen by the researcher, between quantitative and qualitative analysis. The type of research method chosen can therefore be Quantitative, Qualitative or Mixed, if using both qualitative and quantitative techniques to achieve the understanding of a certain topic, Creswell, (2003).

In this thesis I was able to access privileged and relevant information about the Crowdfunding market, from its earliest stages of development in Portugal to present day. This availability and quality of information led to the decision of applying has the corner stone for this study the quantitative method approach. According to Creswell

(2003) the quantitative approach can be defined in the following manner: ‘quantitative approach is one in which the investigator primarily uses post-positivist claims for developing knowledge (i.e., cause and effect thinking; reduction to specific variables, and hypotheses, and questions, use of measurement and observation, and the test of theories) employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistic data.’ (Creswell, 2003: 18).

In order to have a significant sample of crowdfunding projects, data was obtained from every project, successful and failed, that ever passed through the CF platform PPL, which is the most dominant platform operational in Portugal. This sample is constituted by 247 projects which fundraising process took place between August 2011 and February 2014. The data collected contains concrete information about target amount and amounts raised, about the category/nature of the project, number of supporters, geographic location of both project and funders, the span of the time window for fundraising and the contacts for each venture. This information will allow us to develop a research based on the data that will reflect with fidelity the reality of the Portuguese Crowdfunding environment.

Methodology

Methodology can take one of two distinct forms or approaches: Inductive or Deductive. A deductive methodology approach reveals ‘top-down’ reasoning, it is based on a general theory that through academic study, development of hypotheses, and observation is then particularized and confirmed to a specific case. On the other hand, an inductive approach starts with observation and gathering of data of specific cases by the researcher, who then looks for patterns which will allow him to develop a new theory.

In the case of this work the methodological approach chosen is of Inductive nature. Even though informed by previous theories and studies done on other markets, this research will analyze without preconceptions the data obtained on the Portuguese Crowdfunding market. This analysis will produce a set of patterns, specific to the sample, which will reveal a broader theory on the behavioral patterns of Portuguese Crowdfunding.

19. Evolution of Crowdfunding Success Rate in Portugal

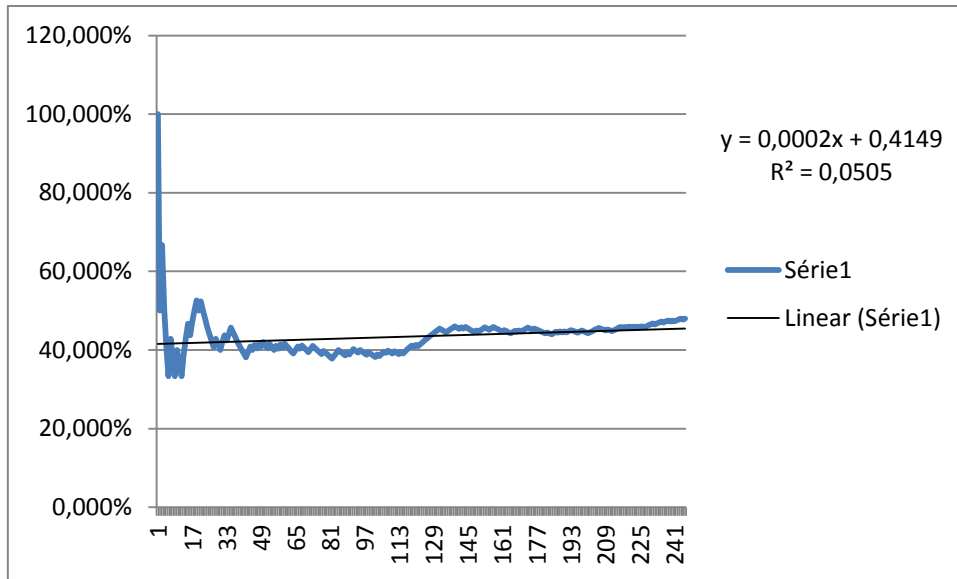
One of the first things that came to my attention when studying the different projects that passed through the crowdfunding platform PPL, and also arguably one of the key indicators for the level of development of Crowdfunding in a country, was the number and level of success cases that these projects have enjoyed. Given the very high market share of PPL there is a consequent relation between the success rate of these projects and the overall success rate of Crowdfunding in Portugal.

Overall PPL has enjoyed a positive and growing level of successfully financed projects in opposition to those which failed to reach the established capital goal. According to the most recent numbers the ratio is established in 118 financed projects to 128 failed projects (approximately 48% of project success rate). The benchmark success rate for the main CF platforms around the world is also, with very small variation, of about 50%, (*Massolution's 2012 Crowdfunding Industry Report*) which makes it safe to state that PPL and therefore Portugal (since PPL is by far the main Crowdfunding platform in the country) is in line with international practices. Nevertheless an absolute value does not allow for any inferences about the path Portuguese Crowdfunding is following and is insufficient to make predictions about the future.

In order to critically discuss the possible evolution of Portuguese crowdfunding and possibly predict it, it is necessary to analyze the trend of the statistic success rate. This means that it is necessary to know if during the 2 years of activity of PPL which our data sample covers this ratio has shown a positive or negative trend.

In order to do so we will have to follow the evolution of PPL's overall project success rate over the course of its first two years of existence and 246 projects.

Crowdfunding as an Entrepreneurial Tool – Critical Analysis



Graphic 2 - Evolution of the overall success rate in PPL (Source: PPL data)

This allows us to see that, with the exception of the earliest stages of the PPL platform when Success Rate showed high variability due to the small size of the sample, the evolution during the first 2 years that PPL was operational has been steady and very positive. The success rate has been rising steadily from around project 60 when the success rate was holding at around 40% until the last project where overall success rate reached 48%. This evolution is a strong sign that Portuguese Crowdfunding is evolving in the direction of reaching the international success rate benchmark of 50% and therefore be considered a mature and stable market.

20. Venture Categories in the Portuguese market and respective Success Rates

In the PPL platform and in the Portuguese Crowdfunding market as a whole, the ventures can be divided into different types. For the purpose of this analysis, we will adopt the 19 separate categories that are used by PPL.

The frequency analysis of each category and the success level associated with each one will provide valuable insight on the Portuguese Crowdfunding market, its demarche and specificities. But let's first analyze the frequency of project types in the Portuguese Market.

Category	Number of projects
Agro-Industry	2
Environment	9
Plastic Arts	1
Citizen Politics	1
Science / Technology	15
Dance/Cinema/Theatre	20
Sports	15
Education	21
Entrepreneurship	29
Events	14
Gourmet / Restaurant	4
Games	2
Books / Magazines	32
Fashion / Design	5
Music	44
Others	7
Social	8
Tourism / Travel	9
Video / Photography	8

Table 3 – Frequency of the different project categories (Source: PPL data)

We can now divide the frequency of each category into 4 main groups that will characterize the Portuguese market. These groups are *Vestigial* with ≤ 5 projects in the past 2 years, *Low Frequency* $5 \leq 10$, *Intermediate* with $10 < 20$ and finally *High frequency* ≥ 20 .

Frequency Groups	Category of Projects
<i>Vestigial</i>	Agro-Industry, Plastic Arts, Citizen/Politics, Gourmet / Restaurant, Games, Fashion Design
<i>Low Frequency</i>	Environment, Others, Social, Tourism / Travel, Video /Photography
<i>Intermediate</i>	Science / Technology, Sports, Events
<i>High Frequency</i>	Dance / Cinema / Theatre, Education, Entrepreneurship, Books and Magazines, Music

Table 4 – Frequency groups in the Portuguese Market

As one can see, the Portuguese Crowdfunding market shows a High prevalence of Music, Entrepreneurship and Book / Magazine projects, closely followed by performance arts (Dance / Cinema and Theatre) and Education projects. This indicates a very strong Cultural and Entrepreneurial component to the Crowdfunding market in Portugal, which goes in the same direction of the American and the rest of the European Crowdfunding markets where these categories have identical strong prevalence over other project categories searching for funds in the Crowdfunding marketplace. (*Massolution's 2013 Crowdfunding Industry Report*).

In order to obtain the full picture of the Portuguese CF market it is also necessary to analyze the level of success for each one of the categories.

Category	Success rate of projects
Agro-Industry	0/2 (0%)
Environment	7/9 (78%)
Plastic Arts	0/1 (0%)
Politics	1/1 (100%)
Science / Technology	5/15 (33%)
Dance/Cinema/Theatre	7/20 (35%)
Sports	6/15 (40%)
Education	12/21 (57%)
Entrepreneurship	8/29 (28%)
Events	6/14 (43%)
Gourmet / Restaurants	0/4 (0%)
Games	1/2 (50%)
Books / Magazines	15/32 (47%)
Fashion / Design	5/5 (100%)
Music	26/44 (59%)
Others	5/7 (71%)
Social	3/8 (38%)
Tourism / Travel	4/9 (44%)
Video / Photography	6/8 (75%)

Table 5 – Success rate of projects according to category (Source: PPL data)

As we can see, in the Portuguese market certain categories present a high success rate in terms of reaching the target goal proposed by the projects, whilst other categories fall short of that goal more often and consequently present lower success rates. Taking into account that some of the categories present a very low number of projects, it is advisable to restrain conclusions on the success rates presented in those categories, therefore this analysis will focus on the *Low Frequency*, *Intermediate* and *High Frequency* categories, leaving out *Vestigial*.

According to the information compiled the most prominent projects in Portuguese Crowdfunding market and the areas where Crowdfunding efforts appear to produce the better results are: Environment (78%), Others (71%), Education (57%), Music (59%)

and Video / Photography (75%) all of them with success rates above 50 % and a frequency of over 5 projects.

In a more moderate success rate, between 28% and 47%, there are the categories of Science / Technology, Dance / Cinema / Theatre, Sports, Entrepreneurship, Books / Magazines, Events, Social and lastly Tourism / Travel. These are categories that even though have had a relevant number of projects, did not enjoy high success rates.

Lastly we can find a group of categories which success rates vary from 0% to 100% but due to the very small size of the sample it is not wise to attempt any kind of elation from the information gathered. This group is composed by all the categories which frequency was described as *Vestigial*.

A relevant piece of information can be taken from this first analysis. The popularity of a certain category of project appears to not be necessarily translated into a higher success rate for that category. Examples of this phenomenon can be found in the categories of Dance/Cinema/Theatre, Entrepreneurship and Books/Magazines, all these are part of the *High Frequency* group, defined earlier, but nevertheless present success rates that are below the global average.

Lastly it is also important to note that there were no categories with a success rate lower than 25%, which represents a good indicator for the future of Crowdfunding in Portugal.

21. Financing Time Span and its influence on Success rates

In PPL, as in most other Crowdfunding platforms, each project has the choice to set which time span desires to gather funds. Although this variable is usually set around two months, it varies from project to project and it is plausible to predict that it has a significant influence on the outcome of the campaign. In order to verify this assumption we will now proceed to an in-depth analysis of the PPL project sample time span and cross this information with the success rate for each time span.

In order to facilitate the analysis the time spans of all projects under study were divided into four major groups: 1 month or less, 1 to 2 months, 2 to 3 months and over 3 months. These groups present the following distribution:

Time Span	Number of projects
1 month or less (0 - 30 days)	31
1 - 2 months (31 – 61 days)	136
2 - 3 months (62 – 92 days)	66
More than 3 months (92 days or more)	3

Table 6 – Number of projects according to time span (Source: PPL data)

As we can see the overall majority (136 in 246) of the projects chose to collect funds for a period of between one and two months. Nevertheless this is not necessarily translated into better results. In order to analyze the effect of the time span we will cross reference the success ratio for each one of the time span options.

Time Span	Success Rate
1 month or less	22/31 (70.96 %)
1 - 2 months	60/146 (41.1%)
2 - 3 months	35/66 (53.03%)
More than 3 months	1/3 (33.3%)

Table 7 – Success rate according to time span (Source: PPL data)

As it is observable, even though there is a prevalence of the 1-2 month time frame choice for fund raising length of projects, this choice doesn't seem to be the most beneficial for entrepreneurs.

Both one month or less, and two to three months time frames present superior success rates, with 53.03% for the 2-3 month time frame and 70.96% for one month or less.

The one to two month time frame has a lower success rate but is still at an acceptable level of 41.1%. Also, it is arguable that, since this time frame has the most projects, and is chosen by the majority of entrepreneurs, it also attracts, as a time frame choice, the majority of the inexperienced or unprepared entrepreneurs. This might partially explain the lower success rates when compared to the more uncommon time frames choices which are possibly made by more confident entrepreneurs with a deeper knowledge of the best time span option to take in terms of project management.

Finally there is the 'More than 3 months' time frame. This choice presents a significantly lower success rate than the other options, nevertheless, due to the much reduced number of projects that have chosen this option, it is more prudent to discard this time frame as a choice in terms of success rate. This number of projects is so reduced that the addition of a single successful project would put this choice at the same level of the others.

21.1 Time Span influence in the Success Rate according to project category

The influence of the Time span for gathering funds in the success rate for each of the categories of venture is an insight of great importance for the understanding of Crowdfunding dynamics in Portugal, particularly for entrepreneurs needing more detailed information about how much time should be used for their particular type of project.

For this section of the study, as previously done, we will focus solely on the Low Frequency, Intermediate and High Frequency types of venture, leaving out the vestigial group.

Category	Av. Time Span of Succ. Projects in each Category
Environment	68,14
Science/tech.	62,8
Dance/Cin/Theat.	48,14
Sports	47,83
Education	46,08
Entrepreneurship	44,86
Events	31,83
Books / Magaz.	48,75
Music	52,79
Others	69,6
Social	83,25
Tourism / Travel	81,75
Video / Photo.	63,8

Table 8 – Average time span of successful projects according to category (Source: PPL data)

With an Overall average of **54.27** days, we can see the average time span for gathering funds of a successful project is far from being homogeneous between categories. This leads to believe that the nature of the project has a strong influence on optimal time frame to achieve the target capital for each category of project.

While ‘Events’ category presents the most reduced average time span of successful projects, with an average of only 31.83 days, ‘Social’ and ‘Tourism/Travel’ categories present a clear trend for requiring larger time spans to reach success with the three presenting averages of 80, 83.25 and 81.75 days respectively.

Well above global time span average, we can find the categories of ‘Environment’, ‘Others’ and ‘Video/Photo’, with averages of 68.14, 69.6 and 63.8 days respectively.

Finally we can find every other category in a relatively homogeneous group with average time spans that vary from 44.86 to 52.79 days.

21.2 In-depth analysis of the relation between Time Span/Suc.Rate/Category

In order to allow a more detailed analysis of time span influence on the success chances of a project in each category we will now analyze the following table that individually exposes the number of success cases and the total number of projects in each category and for each time span.

Category \ Time Span	1 month or less	1 – 2 months	2 - 3 months	More than 3 Months
Environment	1 / 1 (100%)	2 / 4 (50%)	4 / 4 (100%)	0
Science / Technology	0	2 / 8 (25%)	3 / 6 (50%)	0 / 1 (0%)
Dance/Cinema/Theatre	3 / 5 (60%)	3 / 10 (30%)	1 / 5 (20%)	0
Sports	1 / 2 (50%)	3 / 11 (27%)	2 / 2 (100%)	0
Education	3 / 3 (100%)	7 / 14 (50%)	2 / 4 (50%)	0
Entrepreneurship	3 / 6 (50%)	3 / 14 (21%)	2 / 9 (22%)	0
Events	3 / 3 (100%)	2 / 8 (25%)	1 / 3 (33%)	0
Books / Magazines	3 / 4 (75%)	10 / 23 (43%)	2 / 5 (50%)	0
Music	3 / 5 (60%)	13 / 27 (48%)	6 / 9 (66%)	0 / 1 (0%)
Others	0	2 / 4 (50%)	3 / 3 (100%)	0
Social	0	1 / 2 (50%)	2 / 5 (40%)	1 / 1 (100%)
Tourism / Travel	0	1 / 3 (33%)	3 / 6 (50%)	0
Video / Photography	0	5 / 6 (83%)	1 / 2 (50%)	0

Table 9 – Success rate according to project category and time span (Source: PPL data)

The overall tendencies previously established for each Category and Time Frame are on their most part supported by this table and information. Nevertheless there are some exceptions: Dance/Cinema/Theatre, Social and Video/Photography present lower success rates for the 2-3 month time frame than for the 1–2 month. In the case of the ‘Social’ category this difference is apparently due to the very small number of projects in the 1-2 month time frame, since the trend for this category is very clearly of more

prolonged Time Spans. ‘Video/photography’ on the other hand is a categories that clearly benefit from a 1-2 month time frame (unlike the general trend in the Portuguese market) which is evident not only from the Success Level but also from its overall number of projects in this time frame.

22. Target capital and its influence on Success rates

As it typically happens in the international Crowdfunding market, projects tend to either succeed by very small margins or fail by large margins. This happens because once the projects achieve the targeted goal a great deal of investor’s motivation goes away since the product/cause/service will go forward with or without further investor input. On the other hand projects also fail by large margins because they fail to capture the interest of the investors and create momentum for fundraising. Therefore they never take off (Mollick, 2014).

In this section we will analyze how the variable ‘Target capital’ influences the success of a venture and ultimately helps to land the project in one of the two above mentioned groups. The optimal target capital is expected to vary according to the nature of each project, but the study and observation of PPL data will allow us to deduce it not only for the generality of the Portuguese market but also for each of the categories of projects in the Portuguese Crowdfunding market. As in previous sections, this variable is divided into different groups in order to facilitate the analysis.

Target Goal	Number of Projects	Success Rate
< 1.000 €	26	16/26 (61.5%)
1.000 < 2.000 €	82	44/82 (53.7%)
2.000 < 3.000 €	56	25/56 (44.6%)
3.000 < 4.000 €	37	16/37 (43.2%)
4.000 < 5.000 €	20	8/20 (40%)
>5.000 €	25	9/25 (36%)

Table 10 – Project success rate according to target goal (Source: PPL data)

In terms of distribution, the Portuguese CF market, as shown above, has a great tendency for projects that ask for a relatively small amount of capital, with over half the projects in the past two years of PPL falling in the 1.000 € to 3.000 € range.

Another interesting tendency is the fact that a small amount of capital set as target seems to have a direct and positive effect on the chances of this project succeed. In fact, the sample under study shows a direct reverse correlation between Target goal and Success rate. In every situation the higher the goal, the lower the average success rate for projects in that group, as shown in the table above.

22.1 Average Capital of a Successful project according to category

Category	Av. Target Capital of a Successful Project
Environment	2.200€
Science/technology	6.500€
Dance/Cin./Theatre	1.179€
Sports	1.370€
Education	1.836€
Entrepreneurship	1.438€
Events	1.914€
Books / Magazines	2.481€
Music	3.002€
Others	1.550€
Social	2.113€
Tourism / Travel	1.650€
Video / Photo.	1.610€

Table 11 – Average target capital of successful projects according to category (Source: PPL data)

The overall average target capital of successful projects is **2.296 €**. As we can see there are variations in the average target capital of successful projects in each category. Overall, almost every single category remains relatively close to the global average and within the previously mentioned gap of 1.000 € to 3.000 €. The exceptions to this trend are the categories of Science and Technology, and Music. Science and Technology presents an average target capital of successful projects of 6.500€, well above the global average. Music, on the other hand, presents a more modest average of 3.002€, which is still above the global average and outside the gap (1.000 € - 3.000 €).

The explanation for the superior averages displayed by these two categories can be of multiple natures. In order to try to explain it and also gain a deeper knowledge into the relation between category of project and target capital for a successful project, we will proceed with a more in-depth analysis on it:

22.2 In-depth analysis of the relation between Target Capital/Suc.Rate/Category

As previously established lower targets of capital appear to have a positive influence on the overall chances of success of a venture. It is important now, through a detailed analysis of each successful project for each category, to establish if this trend applies in every venture category, or if there are types of venture that present different behaviors.

This in-depth analysis will also help to better understand the reasons for the higher average capital targets of successful projects displayed by the categories of Music and Science/technology.

Targ. Capital \ Category	< 1000 €	1M < 2M	2M < 3M	3M < 4M	4M < 5M	> 5000 €
Environment	1 / 1 (100%)	3 / 5 (60%)	1 / 1 (100%)	0	2 / 2 (100%)	0
Science/techn.	0 / 1 (0%)	0 / 2 (0%)	2 / 3 (66.6%)	1 / 2 (50%)	0	2 / 7 (28.6%)
Dance/Cin/Theat.	2 / 3 (66.6%)	4 / 9 (44.4%)	1 / 5 (20%)	0	0 / 1 (0%)	0 / 2 (0%)

Crowdfunding as an Entrepreneurial Tool – Critical Analysis

Sports	1 / 1 (100%)	4 / 7 (57.1%)	1 / 4 (25%)	0 / 2 (0%)	0 / 1 (0%)	0
Education	1 / 2 (50%)	6 / 7 (86%)	4 / 6 (66.67%)	0 / 3 (0%)	0 / 1 (0%)	1 / 2 (50%)
Entrepreneurship	0 / 3 (0%)	6 / 13 (46%)	2 / 4 (50%)	0 / 4 (0%)	0 / 3 (0%)	0 / 2 (0%)
Events	2 / 4 (50%)	1 / 3 (33%)	1 / 1 (100%)	2 / 3 (67%)	0 / 2 (0%)	0 / 1 (0%)
Books / Magaz.	2 / 3 (67%)	4 / 11 (36%)	4 / 10 (40%)	1 / 2 (50%)	2 / 2 (100%)	1 / 3 (33%)
Music	2 / 3 (67%)	6 / 11 (55%)	3 / 10 (30%)	7 / 9 (78%)	3 / 5 (60%)	5 / 6 (83%)
Others	1 / 1 (100%)	2 / 2 (100%)	1 / 1 (100%)	1 / 2 (50%)	0	0 / 1 (0%)
Social	0	1 / 3 (33%)	2 / 2 (100%)	1 / 2 (50%)	0 / 1 (0%)	0
Tourism / Travel	1/1	1 / 2 (50%)	2 / 4 (50%)	0 / 2 (0%)	0	0
Video / Photo.	2 / 2 (100%)	3 / 3 (100%)	0	1 / 3 (33%)	0	0

Table 12 – Success rate according to project category and target capital (Source: PPL data)

As we can see, for almost every category of project, the overall trend explored in the previous section is maintained. This means that for the overall majority of categories both the number of projects and their success rate is higher in the low to medium range of target capital - from 1.000 € to 2.999 €).

Nevertheless the one category that clearly inverts this trend is Music. Not only the amount of projects with high target capitals is well above the average but also the success rates experienced in the higher target capital ranges are above those for lower targets of capital. This explains the higher average target capital of successful projects in this category - 3.002 € - and suggests that successful Music projects attract and are benefited by higher target capitals.

On the other hand we have Science and technology which displays a higher number of projects in those levels of target capital - 9 out of 14 - although not displaying higher success rates for higher target capitals. This might indicate that this category attracts projects with higher target capitals and in fact benefit from them, but this conclusion must be taken with caution due to the small number of projects in the ‘Science/Technology’ category and to the fact that it has the project with the highest target amount of the sample - 20.000 € - which inevitably has an exacerbating effect on the category average for target capital.

23. Number of Fans and its influence on Success rates

The number of fans for a project is widely recognized as one of the best success indicators and predictors. In order to discover how this variable behaves in the Portuguese market we need to establish a correspondence between the number of fans of each project and its chances of succeeding in obtaining the needed capital.

First we will explore how, in the Portuguese market, the success rate behaves in function of the number of fans. In order to do so, we will divide the sample in groups of projects according to the number of fans.

Number of Fans	Projects	Success Rate
< 20	120	18/120 (15%)
20 < 40	51	32/51 (62.7%)
40 < 60	30	25/30 (83.3%)
60 < 80	21	19/21 (90.5%)
80 < 100	4	4/4 (100%)
> 100	20	20/20 (100%)

Table 13 – Project success rate according to number of fans (Source: PPL data)

As it is observable in the table above a great number of the PPL projects gathered a number of fans under 20 - 120 out of 246 projects. This low number of fans is related to the success rate of those projects, which was only of 15% for this bracket.

The number of projects with a number of fans between 20 and 40 is much lower but the success rate is at a significantly higher rate than the previous level, presenting success levels that already encourage investment and predict a positive outcome for the venture at 62.7 %. This suggests that it is at this level of fans that a project becomes statistically viable for prospective entrepreneurs, since the success rate overcomes the psychological barrier of the 50% mark.

When the number of fans reaches the stage of 40 to 60 the Success rate associated raises exponentially to a very encouraging 83%; on the other hand the number of projects that have reached this threshold is lower - only 30 projects.

On the following three levels the success rate rises from around 90 %, in the 60 to 80 bracket, to 100% for the brackets above 80 fans. This means that any project in Portugal reaching 60 fans or more, chances of succeeding are overwhelming. Nevertheless it is important to take into account the reduced number of projects that actually reach this level of popularity amongst fans, 45 out of 246, around 18% of the total amount.

23.1 Average Number of Fans of a Successful Project according to Category

The global average number of fans of a successful project is 71.06. This number appears to have little meaning though since the average number of fans seems to have a high variability according to the project category it refers to, as it is put in evidence by the table below.

Category	Av. Number of Fans in a Successful Project
Environment	58,7
Science/tech.	106,8
Dance/Cin/Theat.	24,7
Sports	45,8
Education	51,3
Entrepreneurship	123,3
Events	47,3
Books / Magaz.	65,7
Music	103,3
Others	41
Social	92,7
Tourism / Travel	54,5
Video / Photo.	31

Table 14 – Average number of fans of successful projects according to category (Source: PPL data)

Even though the variability is significant between category averages, it is still possible to sort out three distinct groups of categories:

First there are the Video/Photo and Dance/Cin/Theatre categories, for which the average number of fans for successful projects is extremely low and below the global average - 24.7 for D/C/T and 31 for Video/Photo. This may indicate that these projects need a lower number of supporters to succeed or that supporters of these categories tend to make larger donations.

With a less drastically difference, but still below global average, we can find a group that includes the majority of project categories (Environment, Sports, Education, Events, Books/Magazines, Others and Tourism/Travel). This group presents averages that vary from 41 - Others - to 65.7 - books and Magazines.

Lastly we can find the group of categories whose average fan number is well above the global average. This group is composed by the categories: Social, Music, Entrepreneurship and Science/Technology. The average number of fans for successful projects in these categories is respectively: 92.7, 103.3, 123.3 and 106.8.

24. Results Discussion

The analysis of data from the Crowdfunding platform PPL allows us to obtain a privileged insight into the inner working and specificities of the Portuguese Crowdfunding market. Even though the analysis was limited by the nature of the data obtained, it is still possible to give an accurate, though incomplete, answer to the first research question proposed in this thesis: **‘What variables / business attributes have a relevant influence in a crowdfunding campaign in the specific case of Portugal?’**

Although we cannot find and prove every single variable / business attribute that has a significant influence on the outcome of a crowdfunding campaign in Portugal, we can prove and analyze in detail the effects for most significant variables.

In this study we found that different categories displayed different levels of popularity amongst Portuguese public - the Crowd. This leads to different success rate levels for each category. The category of a project also appears to influence the amount of capital that a project can confidently ask for and still hold positive chances of succeeding.

The influence of the time span chosen to gather funds is also, according to the analysis, one of the variables with influence on the outcome of a project. The Portuguese CF market appears to respond better to very short term projects (less than one month) and to have an adverse reaction to projects between 1 and 2 months.

Regarding target capital, this variable has proven to be of great importance and specific to the Portuguese market nature. This analysis has proven the direct impact of target capital on project chances of succeeding. For Portugal, the lower the target capital, the better the chances of a project to succeed. There are however some exceptions in the project categories of Music and Science/ technology.

Lastly we can mention the number of fans of a project. This variable’s behavior is a consequence of the success or failure of a project and therefore does not directly impact the result as it is more an indicator. Its behavior nevertheless reveals valuable information about the Portuguese market, like the already expected tendency to higher success rates with higher number of fans and the fact that above 80 fans the success chances of a project in Portugal are overwhelmingly positive.

Regarding the second Research Question: **‘To what amount of capital is it currently viable for a company/start-up to use crowdfunding in Portugal?’**

The answer to this question can be found in two ways. On one hand this thesis has an extensive analysis of the target capital for each project, the success rate for each level of target capital, and the average target capital successfully gathered for each project category. If this is the approach chosen by the entrepreneur he will find that the global average target capital of a successful project in the Portuguese crowdfunding market was 2.296 €, and he can also find the averages for optimal target capitals, for each category, in the chapter of this thesis dedicated to the subject.

On the other hand it is evident the viability of asking for any amount of capital is largely related with the individual merits of the specific project and entrepreneur. This is evident by the variability of amounts of capital in every category. So the answer to this research question should be that even though there are averages and ceilings that have never been burst, the viability of asking for any amount of capital is dependent on the project and entrepreneur and is not market related.

Lastly the third research question was: **‘What kinds of projects are more likely to engage the Portuguese public and gaining their input (both financial and of other types)?’**

According to the data analysis we can safely state that the projects that are more likely to engage the Portuguese Public present modest targets in terms of capital, the time frame for gathering capital is less than one month, and are preferably of a Cultural / Entrepreneurial nature, such as Dance / Cinema / Theatre, Education, Entrepreneurship, Books and Magazines and Music.

25. Implications

The overall success rate of projects of 48% and the positive historical evolution of the success rate for projects sets the first and most important foundation to make it safe to state that Crowdfunding is becoming a solid and viable alternative to obtain funds for new ventures in Portugal. These two factors also consolidate the position of the Crowdfunding market as a mature and relevant one when compared to its European and American 'competitors'.

Data analysis also highlights that Portuguese Crowdfunding attracts mostly entrepreneurs and projects of a cultural nature/background - Dance/Cinema/Theatre, Education, Magazines/Books and Music - as pointed by the frequency analysis of different categories. This, however, as further study revealed, does not necessarily translate into higher success rates, like happened in the categories of Dance/Cinema/Theatre and Books/Magazines with success rates of 35% and 47% respectively. The category of entrepreneurship follows a similar pattern demonstrating high popularity in terms of number of projects but equally failing to obtain positive success rates.

In what relates to the time span of ventures, the main implication of the data analysis is that for the Portuguese market the choice that attracts most projects and therefore the one that better characterizes the market is the '1–2 months' time span for gathering funds. However this is also the choice that attracts most failed projects, leaving the 'less than 1 month' and the '2–3 months' as the choices with the higher success rates.

Still, regarding the time spans for gathering capital, we can state that for the Portuguese market different categories have different behaviors in the established time frames, as it is evident by the much higher average time spans of successful projects for the categories of Social and Tourism/Travel or the much lower average of Events. This suggests that there is a strong correlation between optimal time span and the type of venture in question.

The Portuguese CF market is also characterized by projects searching for relatively low sums of capital, as it is put in evidence by the target capital analysis. Regarding the

success rate for the Portuguese market, the lower the target capital the higher the chances of achieving the goal and being successful.

In what concerns optimal target capital for each category, the variable does not seem to present a behavior dependent on the category of project, staying homogenous throughout the different categories. The exceptions to this behavior are found in ‘Music’ and ‘Science/Technology’ both of which present higher number of projects and better than average success rates for higher levels of target capital, and also are where the largest earning CF campaigns in Portugal can be found.

In Portugal the number of contributors for successful CF projects is relatively low, rarely exceeding 80. As expected, the number of fans and the success level of projects present a behavior that implies a strong correlation between the two variables. The number of fans of successful projects also presents a high variability according to category of projects, indicating that different categories have different types of contributor (both in number and average size of contribution).

26. Conclusion

Since funding through traditional financial institutions is becoming increasingly difficult in the current economic context, the importance and attention given to alternative financing options such as Crowdfunding raises.

Crowdfunding has its origins in the concept of crowdsourcing and can be defined as ‘an open call, mostly through the internet, for the provision of financial resources either in the form of donation or in exchange for the future product or donation or some sort of reward to support initiatives for specific purposes’ Belleflamme *et al.* (2014).

Studying crowdfunding is particularly important and relevant in the specific case of Portugal. Being a small economy strongly characterized by SME’s and suffering from a stagnation of both private and public investment, the Portuguese economy is in dreadful need of alternative sources of financing such as Crowdfunding.

The increasing use of a new source of fundraising, the crowd, means that the market and the entrepreneurs that use it need reliable sources of information and academic works that supports them in the process of obtaining capital from the crowd.

In addition to the novelty of the resource and the consequent ignorance that surrounds it, the fact that crowdfunding is increasing in popularity means that this new source of finance - the crowd - will inevitably become scarce.

For these reasons it is important to understand the concept of crowdfunding and provide both an academic and a more practical context that allows the entrepreneur to take the most out of this new source of financing. Hopefully this work is a valid contribution for the understanding of this phenomenon and thus to support decision making on the use of this funding option.

The key findings of this paper are the importance of project category, target capital, time span for gathering funds and number of fans of a project in the Portuguese market. All these variables have a quantifiable impact specific to the Portuguese market. Along with the data analysis, even if restrained by its limitations, in this research a strong effort was made to reveal and quantify the impact of the variables under study.

Hopefully these findings will be of interest to entrepreneurs looking forward to start a business in Portugal and willing to use the crowd as a financing source.

On the overall picture the attentive reader of this work will find out that most of the more relevant characteristics of Crowdfunding applying in international markets hold true to the Portuguese market as well. Nevertheless, the research and conclusions of this paper, even if limited by restricted access to data about the Portuguese market, proves that this market has unique behavior and defining characteristics. It is in this sense that this work achieves its most important accomplishment. This paper proves also the relevance and importance of doing specific academic studies centered in the Portuguese market, while at the same time providing the bases for future research of Crowdfunding in the country.

References

- Agrawal, A. K., Catalini, C., and Goldfarb, A. 2011. *The geography of crowdfunding* (No. w16820). National Bureau of Economic Research.
- Ahlers, G. K., Cumming, D., Günther, C., and Schweizer, D. 2012. Signaling in equity crowdfunding, *Available at SSRN*, 2161587.
- Belleflamme, P., and Lambert, T., and Schwienbacher, A. 2013. Individual crowdfunding practices. *Venture Capital*, 15 (4): 313-333.
- Belleflamme, P., and Lambert, T., and Schwienbacher, A. 2014. Crowdfunding: Tapping the right crowd. *Journal of Business Venturing*, 2014, 29 (5): 585-609.
- Benkler, Y. 2006. *The wealth of networks*. Yale University Press.
- Berger, A. N., and Udell, G. F., 1995. Relationship lending and lines of credit in small firm finance, *Journal of Business*, 68: 351-382.
- Brandsma, J. and Chaouli, R. 1998. Making Microfinance Work in the Middle East and North Africa. Private and financial sector development group, human development group, middle east and north africa region, *Washington D.C: World Bank Report*, 23076.
- Cardon, M. S., Sudek, R., and Mitteness, C. 2009. The impact of perceived entrepreneurial passion on angel investing. *Frontiers of Entrepreneurship Research*, 29(2):1
- Congress, 112th, 2012. Jumpstart Our Business Startups Act.
- Cosh, A., Cumming, D., and Hughes, A. 2009. Outside entrepreneurial capital. *Economic Journal*, 119 (540): 1494–1533.
- Creswell, John W. 2003. *Research design: qualitative, quantitative, and mixed method approaches (2nd ed.)*. Thousand Oaks, California: Sage Publications.
- Crowdsourcing, L. L. C. 2012. *Crowdfunding Industry Report: Market Trends, Composition and Crowdfunding Platforms*. - <http://www.crowdfunding.nl/wp-content/uploads/2012/05/92834651-Massolution-abridged-Crowd-Funding-Industry-Report1.pdf> - (1-04-2014)
- Glaeser, E. L., and Shleifer, A. 2001. Not-for-profit entrepreneurs. *Journal of Public Economics*, 81(1): 99-115.
- Gruner, K. E., and Homburg, C. 2000. Does customer interaction enhance new product success?. *Journal of Business Research*, 49 (1): 1-14.
- Howe, J. 2006. The Rise of Crowdsourcing. *Wired Magazine*, Issue 14.06.
- Hébert, R. F., & Link, A. N. 1989. In search of the meaning of entrepreneurship. *Small Business Economics*, 1 (1): 39-49.

- Hildebrand, T., Puri, M., and Rocholl J. 2011. *Skin in the game: Incentives in crowdfunding*. Working Paper.
- Jeffrey H. Nilsen, 1999. *Trade credit and the bank lending channel*. Working papers 99.04, Swiss National Bank, Study Center Gerzensee.
- Kappel, T., 2009. Ex ante crowdfunding and the recording industry: A model for the U.S?. *LLAE Law Review*, 29: 375-385
- Kleemann, F., Gunter G., and Rieder, K. 2008. Un(der)paid innovators: The commercial utilization of consumer work through crowd sourcing. *Science, Technology and Innovation Studies*, 4(1): 5-26.
- Kuppuswamy, V., and Bayus, B. L. 2013. Crowdfunding creative ideas: The dynamics of project backers in Kickstarter. *SSRN Electronic Journal*.
- Lambert, T., and Schwienbacher, A. 2010. An empirical analysis of crowdfunding. *Social Science Research Network*, 1578175.
- Leach, J., and Melicher, R. 2011. *Entrepreneurial finance*. Cengage Learning.
- Lin, M., Prabhala, N. R., and Viswanathan, S. 2013. Judging borrowers by the company they keep: friendship networks and information asymmetry in online peer-to-peer lending. *Management Science*, 59(1): 17-35.
- Mollick, E. 2014. The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1): 1-16.
- Morduch, J. 1999. The microfinance promise. *Journal of Economic Literature*, 37: 1569-1614.
- Online payments Report 2012 – Jip de Lange, Alessandro Longoni and Adriana Screpnik - <http://www.ecommerce-europe.eu/stream/report-online-payments-2012> (23-6-2014)
- Ordanini A., Miceli L., Pizzetti M. and Parasuraman A., 2010. Crowdfunding: Transforming customers into investors through innovative service platforms. *Journal of Service Management*, 22(4): 443 – 470.
- Poetz, M. K. and Schreier, M. (2012), The value of crowdsourcing: Can users really compete with professionals in generating new product ideas? *Journal of Product Innovation Management*, 29: 245–256.
- Reynolds, P.D. (2005). Understanding business creation: Serendipity and scope in two decades of business creation studies. *Small Business Economics*, 24: 359–364.
- Schwiebacher, A., and Larralde, B. 2010. *Crowdfunding of Small Entrepreneurial Ventures*. HANDBOOK OF ENTREPRENEURIAL FINANCE, Oxford University Press, Forthcoming
- Shane, S. A., and Venkataraman, S. 2000. The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1): 217–226.
- Surowiecki, J. 2004. *The wisdom of the crowds*. New York: Random House Large Print.

Yang Chu, L. and Zhang, H. 2010. Optimal pre-order strategy with endogenous information control. *Marshall School of Business*, , 57(6): 1055-1077.

Ward, C., and Ramachandran, V. (2010). Crowdfunding the next hit: Microfunding online experience goods. *Workshop on Computational Social Science and the Wisdom of Crowds at NIPS2010*.

Wennekers, S., and Thurik, R. 1999. Linking entrepreneurship and economic growth. *Small Business Economics*, 13(1): 27-56.

Wheat, R. E., Wang, Y., Byrnes, J. E., and Ranganathan, J. 2013. Raising money for scientific research through crowdfunding. *Trends in ecology & evolution*, 28(2): 71-72.

Zider, B. (1998). How venture capital works. *Harvard business review*, 76(6): 131-139.