



Instituto Politécnico de Portalegre  
Escola Superior de Tecnologia e Gestão

“How Web 2.0 helps Crowdfunding” -  
Projeto de Mestrado em Gestão de PME

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Ano letivo 2015/2016

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About the repercussions of the 2008 crisis and the impact it had in crowdfunding and in internet finance:

*“Harmony thus appears as a temporary adjustment, established among all forces acting upon a given spot — a provisory adaptation; and that adjustment will only last under one condition: that of being continually modified; of representing every moment the resultant of all conflicting actions. Let but one of those forces be hampered in its action for some time and harmony disappears. Force will accumulate its effect; it must come to light, it must exercise its action, and if other forces hinder its manifestation it will not be annihilated by that, but will end by upsetting the present adjustment, by destroying harmony, in order to find a new form of equilibrium and to work to form a new adaptation. Such is the eruption of a volcano, whose imprisoned force ends by breaking the petrified lavas which hindered them to pour forth the gases, the molten lavas, and the incandescent ashes. Such, also, are the revolutions of mankind.”*

*Peter Alexeievich Kropotkin, 1896*

## **Thank You**

First of all I would like to show my gratitude to the I.P.P.. This Institution helped me believe in myself, more important than teaching is to help develop the character of a person. I would also like to say thank you to all Professors who helped me during this Master, I show my gratitude without exception. A special thank you to Professor Joaquim Mourato for trusting me, believing in me and motivating me to pursue my work. Another special thank you to Professor Cristina Dias for not allowing me to give up and motivating me to exceed in my work.

A kiss to Margarida Vaz, a friend and a pillar to me in the last years. A kiss to Cátia Terrinca, a marvelous actress who introduced me to crowdfunding, during our time in Bica (a hug to you all).

A hug to my colleagues during this Master, I won't forget you guys, we were a great team. A hug to my "Licenciatura" colleagues for their support.

A hug to all my family who has been there for me. A hug to my grandparents who taught me many things in life and without them I would never had come back to Alentejo. A Hug to Zé Manel who has to deal with me daily. A hug to the man that will always be a shadow (from whom I have learned a lot) in my life, my father.

A special kiss to the woman who loves me most, my mother, without whom many things in my life would never have been possible.

**Abstract**

This study establishes a bridge between Web 2.0 and Crowdfunding. It shows that there is a relation between creation of content and the money collected, using a dataset of campaigns from the Kickstarter platform. Besides this, the study explores the comprehension of the society to these matters. A survey was made in a Higher Education Institution to evaluate if there is an awareness of the society to matters such as crowdfunding and Web 2.0.

The study started with a literature review that sustains this theory followed by the creation of two case studies. One case study made a model that explained relation between Web 2.0 and a crowdfunding campaigns and another study that studies the awareness of the society to matters such as crowdfunding and Web 2.0.

Interesting conclusions were found, showing that these subjects are still giving the first baby steps and there is relation between some creations of contents, through Web 2.0, and the money collected in a crowdfunding campaign.

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## INTRODUCTION

There has been a growing interest by society in a new source of finance. This new source of finance is crowdfunding. This source of finance is growing at a fast pace but little is still known or studied by the academic world.

This study started with a single question: "What is the impact of Web 2.0 in a crowdfunding campaign/project?". During the research for this question another question was created: "What is the awareness of the society to matters such as crowdfunding and Web 2.0?". Through these two questions the two main goals of this study were created: study the impact of the creation of content in crowdfunding platforms and the awareness of the academic society to these matters. To achieve these goals this study adopted a statistic methodology, by conducting two case studies.

This Master Project shows that the developments of Web 2.0 had a deep impact in crowdfunding, being one good example of this impact the creation of content in crowdfunding platforms (case study 1). Besides this, this Master Project studies what the knowledge of Society on these matters is, by conducting a survey in an Academic Institution (case study 2).

The case study 1 approach was through the creation of a statistic model that explained the relation between the creation of content and the money collected in a crowdfunding campaign, in some way this model proves how the creation of content can help signalize the quality of a campaign and gather new Funders to the campaign. This study also found in literature that sustained this theory, that the creation of content had impact in the funds collected in a campaign. To prove this theory this study found ways to identify this impact, being these ways: updates; comments; videos; and social networks. This case used a dataset collected from the Kickstarter platform, but, unfortunately, it was totally impossible to study all projects of the Kickstarter platform due to the vast number of projects, so this study focused only on a selected sample.

In the case study 2 focused on the question of the awareness of the society to these matters and to do so, a survey was made to a Superior Education Institution with a goal to study the perception of Web 2.0 and Crowdfunding. The Survey conducted many questions related with the following subjects: Internet Activity; Comments; Videos; Internet Platforms; Web 2.0 Concept; Advantages of Web 2.0; Veracity of Web 2.0; Sources of Finance;

Crowdfunding. Web 2.0 and Crowdfunding results were surprisingly interesting, for example, people know crowdfunding but don't know the concept of Web 2.0. It's important to notice that these 2 case studies used IBM SPSS to study the samples and to create a model.

It's also important to refer that a literature review was conducted. Chapter 1 focuses on explaining the type of sources of finance that exist while Chapter 2 focuses only on the crowdfunding and the crowdfunding industry. Chapter 3 establishes the bridge between crowdfunding and Web 2.0 and identifies some literature that sustains the theory. Besides this Chapter 4 explains the methodology used in this Master Project and Chapter 5 will center on the case studies.

In conclusion, this study will show a small perception of the Portuguese society on crowdfunding and furthermore it will show the impact of Web 2.0 in crowdfunding industry.

## **CHAPTER 1 – SOURCES OF FINANCE**

### **1. Sources of Finance**

Financing a Project has been always the main issue of any type of entrepreneur, from the start-up entrepreneur (Business Sector) to the theatre entrepreneur (Cultural Sector). Financing a project is something difficult for the entrepreneur but finding a way to finance his project is something intrinsic to the entrepreneur spirit.

With the development of the financial system the entrepreneur has at his disposal many types of financing, yet the traditional types of financing are still two types: Debt and Equity (Schwienbacher, 2010).

### **1.1 Equity**

#### **1.1.1. Capital Equity**

In the case of Capital the leading form of finance is the investment in equity. The principal investors in equity are: the entrepreneurs who invest their money in the company; Friends and Family of the entrepreneurs who also invest in the company; Business Angels who are wealthy individuals willing to invest in small projects; Venture Capitalists who are specialized investors who gather money from the common public so they can invest the money in start-ups; Stock Markets which allow investors to invest in I.P.O.<sup>1</sup>; and other companies/strategic investors who invest in start-ups that they think that are important to them (Schwienbacher, 2010).

The investment in equity is usually made in shares/stocks and there are various types of shares. Shares or stocks represent an equity stake of the capital or assets of a company.

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<sup>1</sup> Initial Public Offering

We can identify three types of shares: Ordinary Shares; Deferred Ordinary Shares; and Preferred Shares (Carter, 1997).

Ordinary shares are the first ones to be issued to the owners of the company. Usually they have a very small “face value” and these shares don’t have a direct relationship to their nominal value except when they are issued for cash (Carter, 1997). Another type of shares are the deferred ordinary shares, where the shareholder is “entitled to a dividend only after a certain date or if the profits rise above a certain amount” (Carter, 1997). Finally, Preference Shares are fixed percentage dividend shares who pay to preference shareholders before any ordinary shareholder is paid (Carter, 1997). Besides this, dividend can only be paid if the company created enough profits to pay dividends, although if the company doesn’t pay the dividends in a fiscal year, it must pay the dividend in the following years being the preferred shareholder the first being paid.

### **1.1.2 Entrepreneur Personal Savings**

Usually the first place where the entrepreneur looks to find funds to finance the equity of his firm is in personal savings. Another good example is doing a home equity loan. A home equity loan is a loan backed by the value of the equity and if your home is paid for it can be used to generate funds from the entire value of your home making the entrepreneur’s home the collateral needed to finance a company (Hostrand, 2013). Other good example is Life Insurance Policies, the entrepreneur can borrow most of the cash of the value of the policy which will reduce the value of the policy and in case of death and in case of death the loan has to be repaid before the beneficiaries of the policy receive any payment (Hostrand, 2013).

### **1.1.3 Family and Friends**

Entrepreneurs look to their personal relationships for finance, in particular to parents, family relatives and friends (Hostrand, 2013). The entrepreneur usually offers equity in

exchange for the funding of family and friends. The funding of family and friends has the same formality than any other outside investor. The Funding made by these two types of investors should never be taken lightly because there are personal relations involved.

It's also important to refer that family and friends don't have much capital to invest and the funds given by them should always be treated carefully.

#### **1.1.4 Venture Capital**

Another form of financing through equity/capital is Venture Capital. Venture Capital firms invest in equity stakes of companies and start-ups that they think will grow, so that in the future they can sell or receive dividends. There is high risk in this investment because Venture Capital firms can lose all the money if the company fails or goes bankrupt, definitely there is gamble inherent in the funding of these companies (Carter, 1997). On the other hand, there is also possibility of very high profits and a very high return on the money invested, that's why Venture Capitalists invest in these companies. Besides this expected high return, Venture Capital firms won't retain this investment indefinitely, they will also consider an "exit" through management buyout or a major expansion scheme (Carter, 1997).

Entrepreneurs who look for this type of finance know that the Venture Capital firms finance their projects via an equity stake in the company. Supposedly, they will also appoint a representative to the company's board to help with the development of the company (Mulcahy 2013) and to look after the interests of the board (Carter 1997).

To get this type of finance the entrepreneur has to do? many things, as: build a business plan; determine how much funds he needs; forecast cash-flows and profits; inform the firm about the team management skills; inform the firm about the bank loans already made; and other things depending on the contract (Carter, 1997).

This source of finance has been very popular, mainly in the 80's and 90's, but after the dotcom bubble it has been decreasing the money invested in start-ups and the rate of return to investors has decreased as well (Mulcahy, 2012) making it harder for the entrepreneur to finance his projects.

### **1.1.5 Angel Investors/Business Angels**

Business Angels or Angel Investors are wealthy individuals that are interested in making investments in small businesses with a high growth rate. They are interested in the profitability and security of the investment (Hofstrand, 2013).

In exchange for the risk of their investment Business Angels want to take active part on the company/business that they are investing. In addition, they can contribute with their experience, network contacts and technical/management knowledge.

Usually, they make the same demands that Venture Capitalists (Hofstrand, 2013) but their investments are usually quite smaller.

## **1.2 Debt**

### **1.2.1 Bank Lending**

Bank loans are one of the most used sources of finance, notably in Europe. The bank loans can be: short-term, up to three years; medium-term, from three to ten years; and long-term, more than ten years.

Banks usually charge an interest rate for the money loaned , being this rate a fixed or a variable rate, depending on the movements of the Base Lending Rate (Carter, 1997), usually from a Central Bank, as for example EURIBOR. The interest rate also depends on the risk of the borrower, being this risk associated with the asymmetric information about the borrower. To mitigate this asymmetric information the bank commonly asks for collateral to the borrower.

A Bank, when asked for a loan by the client, will ask some questions as: the Purpose of the loan; the Amount of money the client wants; how the loan will be repaid; the duration of the loan; does loan require security/collateral (Carter, 1997).

Bank lending has been for decades the dominant source of finance, being the banks an essential form of the economy, as it has been proven in the 2008 crisis.

### **1.2.2 Leasing**

Leasing is a form of Rental where leased assets (examples: machinery, cars, commercial vehicles, computers, office equipment and others) are rented to entrepreneurs.

In other words, Leasing is an agreement between two parties, the “lessor” and the “lessee”, where the lessor owns a capital asset but allows the lessee to use it for a specific period of time (Carter, 1997).

There are two types of leasing: operating leasing and finance leasing. Operating leasing consists in the rental of equipment to the entrepreneur/lessee and the lessor is responsible for servicing and maintaining the equipment for a small period of time. In the end of the operating the lessor can lease the equipment to someone else or sell it secondhand.

Finance leasing is an agreement between the lessee and the lessor, where the lessor provides finance to a leased asset for most, or all, of the assets expected useful time. The lessee is responsible for the maintenance of the asset, the leasing covers the economic life of the asset and after that period the lessor can make a second period leasing or allow the lessee to sell the asset on his behalf paying only a fee to the lessor (Carter, 1997).

This form of finance is attractive to the entrepreneur/lessee because the finance leasing is cheaper than the bank loan and assets are leased for a shorter period than its expected useful life (example: high technology equipment that becomes out-of-date before the end of its expected life)

### **1.2.3 Government Grants**

Government grants are funds given or lent with some conditions to businesses and companies and usually these funds don't have to be repaid or if they are repaid they don't have interest rates. The conditions of the grants must be fulfilled or the entrepreneur will be obligated to repay the government. Besides this, grants can be received from different government sources.

Government Grants can be very difficult to get because there is a strong competition and the criteria are sometimes difficult to match. Most of the times an entrepreneur has to provide information about his project as: location; the gains of implementing this project; experience useful to implement the project; and detail full costs.

In most of the cases assistance or grants is granted taking in consideration areas with high unemployment or high technology industries (Carter, 1997).

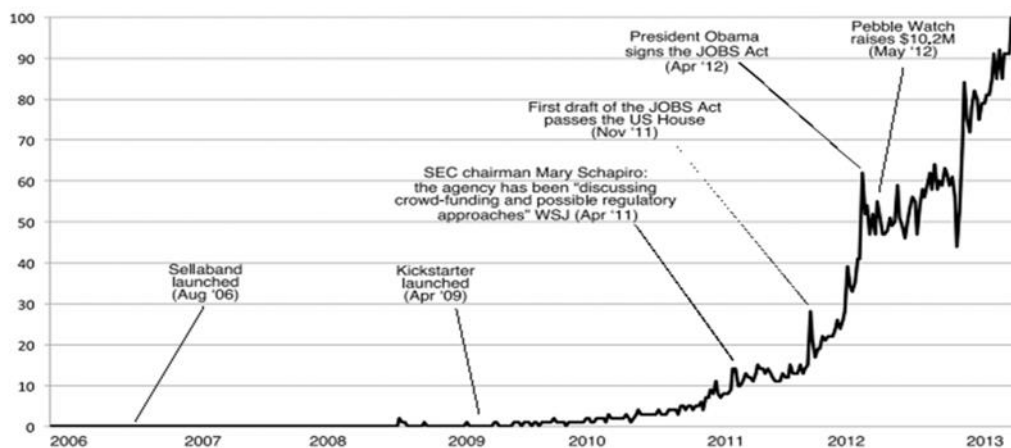
## CHAPTER 2 - CROWDFUNDING

### 2. Crowdfunding

Crowdfunding is a very recent phenomenon that only started gaining relevancy between the years 2006-2007 (Agrawal 2013; Matos 2012).

As can be seen through the growing search of the word Crowdfunding in Google search (figure 1), crowdfunding is still a subject that isn't common knowledge in society (Agrawal 2013). Usually people try to explain crowdfunding by the genesis of the word, i.e., funding through the crowd.

Figure 1- Google search volume of the word crowdfunding



Source: Agrawal 2013

As can be seen in this figure (figure 1), the search for the word crowdfunding is growing at exponential rate. In this image we see major happenings surrounding crowdfunding

from 2006 until 2013: the launch of Sellband<sup>2</sup> 2006, the launch of the biggest crowdfunding platform, Kickstarter in 2009; the importance of the creation JOBS act, from 2011 to 2012; and success story of Pebble, also 2012. According to Agrawal, the signing of the JOBS Act and the success of Pebble “demonstrated an innovation in the market for early-stage finance that could have significant economic consequences” (Agrawal, 2013: 3). Besides of the importance of these events, they all happened outside of the mainstream attention, making most people unaware of the importance of crowdfunding (Hemer, 2011; Agrawal 2013).

The case of Prosper isn't referred on this figure (figure 1) but back in 2008 the lending Platform Prosper<sup>3</sup> was shut down for 8 months (Jesus, 2013) for violation of the Securities Act of 1933. This was an important case for the Lending Platforms. Because of this case all lending platforms must be registered in S.E.C.<sup>4</sup>.

It can be said that there has been a growing interest of the web community and historical events have taken place on crowdfunding industry and further developments will appear on this industry.

## 2.1 Definition of Crowdfunding

The best definition that can be found in crowdfunding literature is the definition of Schwienbacher (Schwienbacher, 2010). Schwienbacher considers that crowdfunding (Schwienbacher 2010: 4) can be defined as:

“(...) an open call, essentially through the internet, for the provision of financial resources either in the form of donation or in exchange for some form of reward and/or voting rights in order to support initiatives for specific purposes”

It's important to specify in this definition that the rewards can be in many types as: interest (lending model); product (pre-selling of the product); company shares (equity model); percentage on the revenue (revenue model); rewards *per se* (reward model); and others.

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<sup>2</sup> Sellband is a Revenue share crowdfunding platform that focuses in music. The entrepreneur makes a campaign to raise money to make a CD and a share of revenue of the CD goes to those who invested on it.

<sup>3</sup> [www.prosper.com](http://www.prosper.com)

<sup>4</sup> Securities Exchange Commission - it's a federal government agency responsible for enforcing the federal securities laws and regulating the securities industry.

The main condition to be considered crowdfunding is that there are financial resources (ex: money) involved. For example, Steam Greenlight<sup>5</sup> can't be considered crowdfunding because the video game entrepreneur isn't directly pledging for money, instead they are asking for votes.

There is also an idea that crowdfunding must involve a financial intermediary, in other words, a crowdfunding platform. It's true that most of the crowdfunding is done by using intermediary platform but new types of software solutions are starting to appear, as Ignition Deck<sup>6</sup>, that eliminate the need for an intermediary.

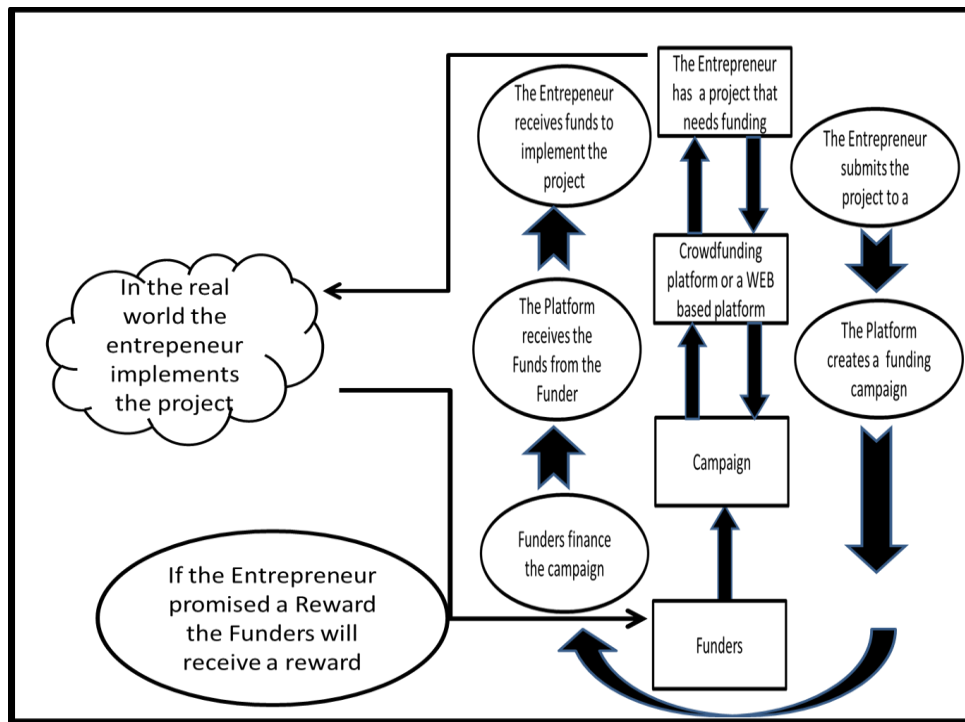
There are also various actors with different names (depending on the author) in the crowdfunding process.

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<sup>5</sup> Steam Greenlight is a platform where a video game entrepreneur can publish his video game concept and the community users can vote on it. If the video game gathers enough votes the Platform will evaluate the game and bring the video game entrepreneur to Steam so we can develop it and sell it on Steam Marketplace. (<http://steamcommunity.com/greenlight>; <http://store.steampowered.com/>)

<sup>6</sup> Ignition Deck wordpress platform that lets run crowdfunding campaigns under the user's own control. For example: if the user has website he can do his own crowdfunding campaign on the website.

Figure 2 – Diagram of the crowdfunding Process



Source: Self-Made

As shown in Figure 2 there are three major actors in crowdfunding: the Entrepreneur, the person that has project that needs funding; the Intermediary that is the crowdfunding platform or a web platform; and the Funders, who are those who fund the Entrepreneur through a web based Intermediary. Naturally, the Intermediary is usually a crowdfunding platform but, as has been said, it can be also a web based platform as for example a web page or blog of an entrepreneur.

The process of crowdfunding (figure 2) unfolds like this: the Entrepreneur has a project that needs funding; he submits his project to a crowdfunding platform or directly submits it to a web based platform; then a campaign is created to gather the funds needed, generally for a period of time; depending on the rules of the platform or the principles of the campaign the Entrepreneur can gather the funds needed, surpass the funds needed or not even gather any funds; the platform receives the funds from the Funders and provides the funds to the Entrepreneur after collecting a fee; the Entrepreneur receives the funds and

implements the project in the real world; if the Entrepreneur during the funding campaign promised some reward in return the Funders will receive that reward that can take many forms.

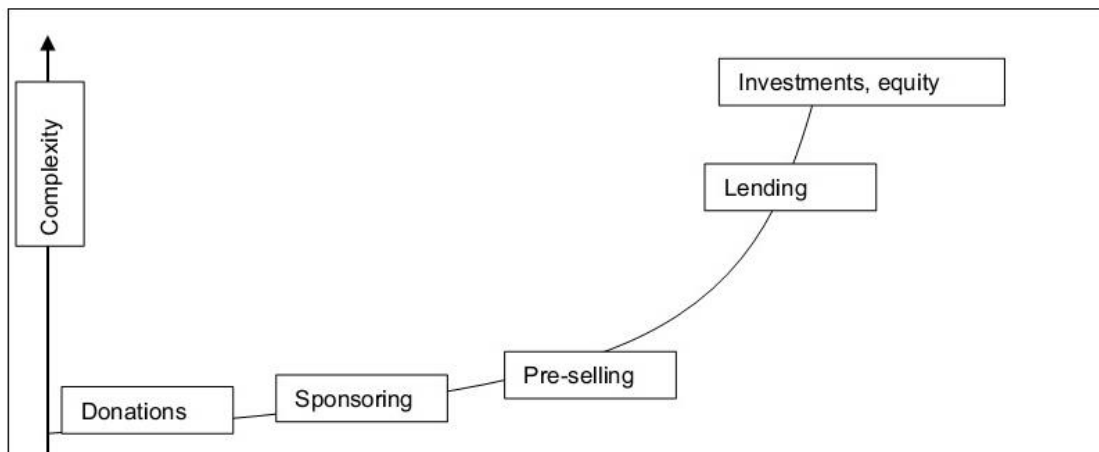
Crowdfunding seems to be quite simple as this figure shows, but in fact it is quite more complex.

## 2.2 Complexity of Crowdfunding

There are many types of crowdfunding platforms, some are for profit others aren't, for instance, Business crowdfunding is quite more complex than Not Business Crowdfunding in a way that is more regulated and careful.

We can see the complexity of the crowdfunding through this graph (Hemer, 2011).

Figure 3 - Major Forms of Capital Provision ranked by process complexity



Source: Hemer 2011

This figure (figure 3) illustrates quite well the complexity of crowdfunding. Donations are the least complex because the person who donates doesn't receive anything in return for the donation. The second least complex case is sponsoring, the person who gives money will receive in return something that isn't an output of the campaign, for example a t-shirt or publicity to the donor.

Pre-selling is the most common type of crowdfunding campaign. The entrepreneurs use crowdfunding to pre-sell their products before they are even made or in some cases before even having the resources needed to produce it. Pre-selling, besides not being recognized by many crowdfunding platforms, is the most common type of crowdfunding and his complexity is associated to the need of the entrepreneur to prove that he has the product to sell or a production plan to produce it<sup>7</sup>.

Lending and Equity are the two most complex crowdfunding types, being these two types more related to the financial sector than any other type of crowdfunding. Lending involves a loan to the entrepreneur and in return the entrepreneur repays the loan plus the interests. In this case, the platform acts as an intermediary who evaluates the entrepreneurs to see if he is able to repay the interests and the loan made by those who financed him. There is high risk associated with the lending of money so there have to be measures to diminish moral hazard, that's why most of the lending platforms have an office and professionals who evaluate the risk (Avery, 2012).

Equity is the most complex form of crowdfunding. This form is regulated in many countries being the most famous example the JOBS Act in U.S.A.. Equity crowdfunding involves the transaction of company shares and voting rights in exchange for funding. As a consequence of this transaction, this type of crowdfunding is usually regulated by the entity responsible for the regulation of the securities industry and related activities (example: S.E.C. in U.S.A.).

In conclusion, Business crowdfunding is quite more complex than Not Business Crowdfunding, in other words, we must distinguish Business Crowdfunding from Not Business Crowdfunding.

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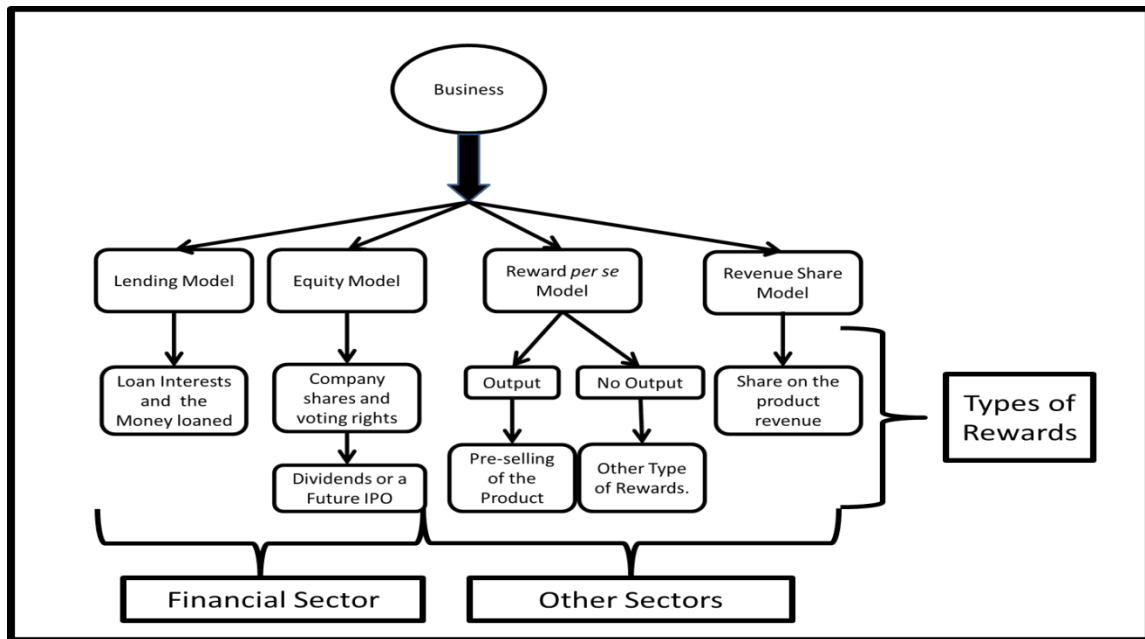
<sup>7</sup> Kickstarter, for example, asks for a production plan before the entrepreneur submits the campaign on the platform.

### 2.3 Business Crowdfunding

We can distinguish two types of crowdfunding campaigns: Business and Not Business campaigns.

The best way to identify a Business Campaign or Business Crowdfunding is by distinguishing if it is for Profit or Not. By doing so, it can be easily identified if it is Business Crowdfunding or Not Business Crowdfunding.

Figure 4- Business Crowdfunding Schematic.



Source: Self-Made

These are the four most common types of Business crowdfunding (figure 4): Lending, Equity, Reward *per se*, and Revenue Share. We can identify the type of Business by the type of

the “reward” they offer: The lending model offers interests over the money loaned; the equity model company offers shares and voting rights; revenue share gives a share on the product revenue.

The case of Reward *per se* is quite more complex, this type of model includes many types of models and maybe that’s why most of the platforms are self-described as reward model. The reward model is also the fastest growing type of platform in the last years and is the most common type of platform (Matos, 2013).

To identify the type of Reward we have to look into the output. If the entrepreneur is asking for funds so he can start a production line to produce a product to give to his Funders, we can conclude that we are in the presence of pre-selling. Rewarding the Funders with a promised product for delivery upon production can be compared with an advanced order (Röthler, 2011). We can synthesize that this type of campaign funding generates a physical output that will reward the Funders for their funding.

There are other cases that don’t involve the creation of a physical output from the campaign. A great example is the sponsoring model. In sponsoring the Funder doesn’t receive a reward directly related with the campaign, in other words, it doesn’t produce an output. The Funder in these cases can receive, for example, a t-shirt, a cap, a thank you letter, or even an autograph.

One type of Sector that is easily identified in crowdfunding is the financial sector, especially in the case of the lending model and equity model. Although the Financial Sector is easily identified, because of the regulation, there are other type sectors present. Röthler and Hemer refer these other sectors as creative industries or creative economy that “comprises advertising, architecture, art, crafts, design, fashion, film, music, performing arts, publishing, R&D, software, toys and games, TV and radio, and video games.” (Röthler, 2011:9).

In conclusion, there are many types of rewards that the entrepreneur can offer and crowdfunding in different sectors.

### **2.3.1 Reward or Prizes Model**

Reward or Prizes model is the most common type of crowdfunding campaign projects (Matos 2013, R thler, 2011; Mollick 2013).

“The most common practice is for project owners to offer a product related to the project, the output. For example, some platforms allow music artists to offer their CD’s in return of financial contributions that enable the artist to record it. There is a wide range of prizes that can be offered to lure in investors such as T-shirts, pins and limited edition products” (Matos, 2013:17).

From this citation we can identify the two types of reward crowdfunding: sponsoring and reward with output.

Sponsoring, or as Hemer refers to it as crowdsponsoring, can be defined as an agreement between the entrepreneur and the Funder/sponsor, where the entrepreneur rewards the Funder with public relations or Marketing to the Funder (Hemer, 2011). Rewards from sponsoring can be a t-shirt, a cap or a pin, in other words, it is a form of gratitude for the funding. The difference between pre-selling campaign and sponsoring, is that sponsoring doesn’t create an output from the campaign.

Another type of reward model is pre-selling or pre-order, this type works almost like an advance order. In this case, the funding is used to produce something in exchange, i.e. Funders will receive a product for their funding. In pre-selling the Funders can contribute with opinions or ideas for the product while communicating to the entrepreneur during the campaign, that’s why Funders are treated as the first clients of the product because they are the first ones to receive it.

There also hybrid types of campaigns, these types of campaigns mix sponsoring with pre-selling. The sponsoring or pre-selling depends of the funds the Funders are willing to fund in the campaign, for example, a Funder can only give \$10 and receive a t-shirt but other Funder can give \$100 and receive a product from the same campaign.

Rewards can be quite important to attract Funders to the campaign but it is also important to refer that entrepreneurs, in most of the cases, don’t have the obligation to give the products that were funded, making this non obligation lead to fraud cases.

### **2.3.2 Lending Model or P2P Lending**

In this campaign model the funds are used in a form of lending debt where the Funders have the expectancy to regain their money back, plus interests (Mollick, 2013). Lending in crowdfunding is a process that is very similar to a regular loan, the entrepreneur reimburses the money to the Funder after a certain and pre-determined period of time and adds to this value an interest that usually depends on the risk of the investment, on the inflation rate and on the time value of the money (Matos, 2013). The main aspiration of the lending platforms is to make loans “from individual to individual without the (direct) involvement of a bank” (Hemer, 2011:16).

With the subprime crisis of 2008 “there is the general consensus that banks are not particularly good at assessing credit risk given their recent track record” (Avery, 2012: 1). Given this record, Avery defends that consumer lending may no longer be the sole domain of banks and the lending model is gaining market share (Avery, 2012).

Lending Models or P2P Models still have some advantages compared to Banks (Avery, 2012):

- Most of the lending models have less operating expenses (example: RattSetter<sup>8</sup> has only 12 employees (Avery,2012));
- Lending models are subject to less regulation compared to banks but more regulated than other types of models;
- Lending models can be quite more agile compared to banks, because they only have one product to offer, loans;
- The entrepreneur pays less interest than they would pay to banks nowadays and the Funder has a higher rate of interest than in a deposit bank<sup>9</sup>.

This Lending Model is also subject to the typical problems of the financial market. Moral Hazard as Asymmetric Information are two typical problems of the financial market who are also present in the Lending Models, this happens because we are dealing with loans and by doing so the entrepreneur has more information and is more willing to take risks than the Funder who funds the project. Although, these types of problems are present, the default

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<sup>8</sup> <http://www.ratesetter.com/>

<sup>9</sup> In the case of RateSetter the entrepreneur pays 9,1% for one year loan of £5000 compared to an average annual percentage rate (APR) of 17% credit card and a minimum of 18% interest rate in a street Bank (Avery,2012). On other hand funders receive 5% on one-year investment, a more interesting rate compared to banks nowadays (Avery,2012).

rates are quite low. Lending Club<sup>10</sup> has only a 3% default rate and Prosper<sup>11</sup> about 5% (Avery, 2012). In the case of RateSetter, an 80€ is charged to Funders which is used to pay for defaults (Avery, 2012), almost working as an insurance.

### **2.3.3 Equity Model**

In this model the Funders are treated as investors because they are funding/investing in the capital of a company (Mollick, 2013). Their main goal is to have return on their investment through dividends, by an IPO (Initial Public Offering) or even by the buying of the company by a larger company.

In the case of the entrepreneur, his main goal is to gain funds through the selling of parts of the capital of his company to a large group of people, giving in return equity stakes and voting rights.

This type of crowdfunding is still rare in the world representing between 4-5% of the crowdfunding market (Matos, 2012; Mollick, 2013), yet this type of Model is also growing with a rate of 114% and with more money raised per campaign (Empson, 2012).

Due to its complexity, the Equity Model is very regulated in the U.S.A. and in European Union (E.U.). In U.S.A. it is regulated by the JOBS (Jumpstart Our Business Startups) Act, a bipartisan support Act that included some limitations as for example: 1 million dollar limit per campaign in transaction securities; Funders can only invest \$10 000 or 10% of their annual income (if less than \$10 000); the crowdfunding platforms must file in S.E.C.

In the case of E.U., equity crowdfunding is regulated by the Prospectus Directive 2003/71/EC and 2010/73/EU (crowdfunding is regulated by this directive but this directive wasn't created for crowdfunding) which focuses the investment on equity solely in Qualified Investors, however the regulation of this model changes from country to country being difficult to have a common regulation for all countries.

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<sup>10</sup> <https://www.lendingclub.com>

<sup>11</sup> <https://www.prosper.com>

It's difficult to predict the future of this model because of its complexity. Of course this model is growing very rapidly and the major players of Venture Capital, as Kauffman Foundation, are quite optimistic. It's also important to say that a more tight regulation can kill this model or a softer regulation can open the door for scams however it's quite difficult to predict what will happen.

### **2.3.4 Revenue Share Model**

Revenue Share is a special case of crowdfunding. This type of model is not very common and it is consider a business model inside crowdfunding. Despite this fact, Revenue Share Model is quite old, considering that one of the most famous Revenue Share Platform, Sellband<sup>12</sup>, was created in 2006, before the 2008 subprime crisis and the burst of crowdfunding.

As the name says Revenue Share, the Funders have a share of the revenue of the product created by the entrepreneur and funded by the Funders. For example, in the case of Sellband, the Funders fund the production of a CD of the music entrepreneur and in return the music entrepreneur repays the Funders with a share of the sales of the CD (Agrawal, 2011). In other words, "several platforms allow project owners to compensate their investors with a percentage of their future sales" (Matos, 2012). Revenue Share doesn't guarantee any paying of interests or dividends, it only guarantees a share on the sales, however this models can be very successful in raising money, being this a possible sign of the development of the industry (Matos, 2012).

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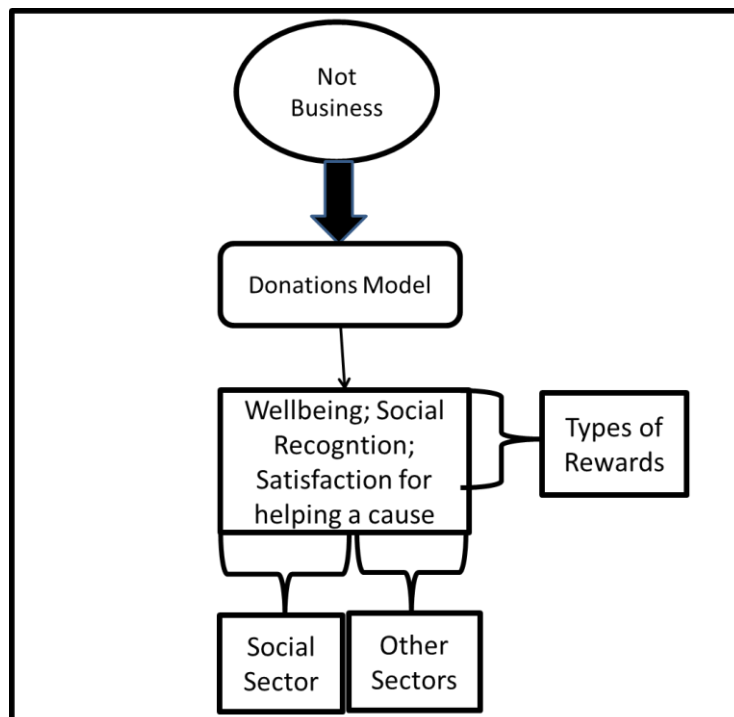
<sup>12</sup> Sellband is famous in the academic community because it's was the platform of study of *Geography of Crowdfunding*, by Ajay Agrawal *et al.* They used this platform to collect data. This paper is referred in many other papers and opened great questions about crowdfunding

## 2.4 Not Business Crowdfunding

In this type of models the motivation of the Funders is not related with any physical reward. Most of the Funders in this case fund campaigns or in other words donate funds without expecting any reward or recognition.

This type of model doesn't focus on profit, it's a not for profit model. Not Business Crowdfunding focuses in different areas as: general charity; foreign development aid; public infrastructures; public research projects; open source projects; healthcare (Hemer,2011). Putting it differently, Not Business Crowdfunding helps the Social Sector and other sectors as R&D sector achieving their projects.

Figure 5 - Not Business Crowdfunding Schematic



Source: Self Made

In Figure 5, as it can be seen, Not Business Crowdfunding is less complex than its brother Business Crowdfunding. The main and only type of Model of Not Business Crowdfunding is the Donations Model. The Donations Model is more related to intrinsic values of the Funders than physical rewards that they can receive from the campaigns, in other words these rewards are related with wellbeing, social recognition and satisfaction for the act of funding.

The main sector of the Donations Model is the Social Sector but there also other quite important sectors, as it has been referred and as for example the cultural sector.

#### **2.4.1 Donations Model**

Donations model, usually is an altruistic model where the entrepreneur<sup>13</sup> has no obligation, of any sort, with the Funders (Röthler, 2011; Schwienbacher, 2010) making the Donations Model the least complex type of crowdfunding (Hemer, 2011). The Funders are motivated by intrinsic reasons (for example the satisfaction in helping a cause), since they don't receive any material or physical reward for their funding (Matos, 2012).

Usually the Funders only receive an e-mail of gratitude, an autograph, or even their name on the credits of a film (Hemer, 2011). In other cases, platforms recognize the effort of the Funders by creating leader boards or a badge system (Matos, 2012). In the leader boards the Funders are ranked by the donation made and in the badge system the Funders are recognized by various achievements that they achieve, making Funders pressured to fund campaigns in order to improve their status/position (Matos, 2012). Besides these motivations, the Funders will only fund a campaign, as in other models, if they believe in the merit of the project that they are funding.

The Donations Model is also the oldest type of crowdfunding, and for this reason "donations platforms raise more money overall, per year active"<sup>14</sup> (Matos, 2012:21). Matos

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<sup>13</sup> The entrepreneur in this case is the social entrepreneur.

<sup>14</sup> Based on his sample

(2012) concludes that donations platforms have raised more money until now because they have been active longer than other types of models/platforms.

Donations was the first type of models appearing in the crowdfunding industry, this type will not disappear but the role of the Donations Model in crowdfunding Industry is still to be defined.

## **2.5 History of Crowdfunding and the importance of WEB 2.0**

One question that is often asked is when was crowdfunding born? It's difficult to say, for certain, when crowdfunding appeared. Some say that it appeared, in Germany, with *Pränumeration*<sup>15</sup>, others say that it started with Mozart (XVIII century) and Beethoven (XIX century) when they wanted to pre-sell their music compositions (Hemer, 2011; Avery, 2012; Röhler, 2011; Matos, 2013). There are, as well, other great historical examples of funding through the crowd. One example is the financing of the pedestal of Statue of Liberty<sup>16</sup> (Hemer, 2011) another is the presidential campaign of the U.S.A. president Obama in 2008<sup>17</sup>.

Besides these historical examples of financing through the crowd along history, crowdfunding nowadays, as we know it, only appeared with the creation of the internet and after the development of WEB 2.0. The first great example of financing of the crowd using the internet was the concert tour of the band Marillion, in 1997<sup>18</sup> (Hemer, 2011).

The band Marillion gave the first kick on crowdfunding through internet but the development of crowdfunding only came on the first decade of the XXI century, coinciding with the development of WEB 2.0 and with the retraction of credit caused by the financial crisis of 2008.

It's curious to see that the evolution of crowdfunding coincides with the appearing of the WEB 2.0 concept. In the paper *Some Principles of Crowdfunding* (Agrawal, 2013) there is a

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<sup>15</sup> Pränumeration is a German subscription model from the XVIII century. When a writer wanted to publish a book he would make a pre-selling of the book to those who wanted to read it on first hand.

<sup>16</sup> When the Statue of Liberty was offered to U.S.A. by France, there wasn't on the budget a pedestal to receive the statue. The famous publisher of the newspaper New York Times, Joseph Pulitzer, asked his readers to donate money to make a pedestal. In less of 6 months, 125000 people donated the 100 000\$ necessary to make the pedestal.

<sup>17</sup> 750 million dollars of the financing of the Obama campaign was made by donations of the crowd.

<sup>18</sup> A fan based internet campaign was made to collect 60 000\$, so the band Marillion could make a U.S.A. concert tour.

figure that shows the growing interest of the Web community in crowdfunding (figure 1) beyond 2006, year of the progression of the WEB 2.0 concept. It can't be said that the growth of the crowdfunding industry is correlated with the building of this concept, but it can be said that WEB 2.0 tools helped the communication between the entrepreneur and those who finance him.

A great example of a financial institution who understood the importance of WEB 2.0 was the Fidor Bank<sup>19</sup>. They emphasize the importance of WEB 2.0 as a way to “establish a dialogue between customers and encourage peer-to-peer financial transactions”<sup>20</sup> “Transparency, authenticity and openness for dialogue are important values to this type of bank” (Röthler, 2011:14). Fidor Bank CEO, Matthias Kröner, argues that the usage of social media (i.e. also WEB 2.0) can establish a better relationship between the customer and the bank (Cowie, 2013). In Fidor Bank, WEB 2.0 is not part of the marketing strategy, as a way to shout mediocre messages, but part of the corporate strategy, as a new business model for banks<sup>21</sup>. Fidor Bank is also related to crowdfunding platforms. Fidor helps his clients finance campaigns through FidorPay account with associated platforms (Cowie, 2013).

A curiosity about Fidor Bank is that this bank was founded after the 2008 financial crisis, in 2009, with the claiming of the goal to bring trust back to the bank industry. This trust in the bank industry and in the financial system was razed with the 2008 subprime crisis and its consequences, like the bankruptcy of the Lehman Brothers.

The second cause of the evolution of crowdfunding on the first decade of the XXI century was the financial crisis of 2008 and its repercussions. With the retraction of credit by the banks and the diminishing of investment by Venture Capital companies, the entrepreneur had to find new sources of financing. One new source of financing was crowdfunding.

Some people, as Helen Avery, editor of Euromoney, say that crowdfunding can be the end of the financial intermediation and that sooner or later Banks and Venture Capitalists will join this revolution (Avery 2012). This argument is very bold but, truth be told, it is starting to happen.

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<sup>19</sup> [www.fidor.de](http://www.fidor.de)

<sup>20</sup> An online community can help the customer with advices about the right questions to ask. The customer can also listen to the experiences of the other customers and seek advice 24 hours a day.

<sup>21</sup> There are great examples of Fidor Bank new business's models. For example: People can earn 50€ for doing a “user-help-user” video on Youtube; “the current account interest rate goes up by 0.1 of a percentage for every 2000 people who add a Fidor Bank “like” to their Facebook profile” (Bird, 2014). Kröner says that there customers have created: 1949 product ideas and improvements suggestions; 2638 ratings of products; and 4162 pieces of advice about how cut personal and household costs and save money. (Cowie, 2013)

The Financial System is starting to look to crowdfunding as a way to make business, being the crowd lending model the most common model. John Mack, the famous CEO of Morgan Stanley during the crisis of the Lehman Brothers, is now a board member of the Lending Club<sup>22</sup>, a lending platform and the Rothschild, a traditional banking family, is investing in ZOPA<sup>23</sup>, also a lending platform (Cookson, 2012).

It's not only the banking industry that is looking into crowdfunding. In fact, Venture Capital is also profiting from crowdfunding. Diane Mulcahy, a former venture capitalist and director of private equity for the Ewing Marion Kauffman Foundation<sup>24</sup>, states in her article, *6 Myths About Venture Capital*, that crowdfunding has been the greatest innovation that has happened in Venture Capital recently (Mulcahy, 2013).

*“Any Innovation in financing start-ups, such as crowdfunding and platforms like AngelList and SecondMarket, has come from outside the VC industry”* (Mulcahy, 2013:83).

Mulcahy gives the example of Angelist<sup>25</sup> an online platform that connects start-ups with angel capital, where the Kauffman Foundation is also an angel investor. AngelList, as Mulcahy refers, has been a great innovation that didn't come from the traditional Financial System (in this case Venture Capital) but came out of crowdfunding.

Once again crowdfunding is not only revolutionizing the way to lend money but also changing how Venture Capital is investing in start-ups.

## **2.6 The Transformation of the Industry**

Crowdfunding is not only changing other industries, crowdfunding is also changing itself. Henrique Matos in his dissertation *Crowdfunding – Material Incentives and Performance* shows how crowdfunding is transforming itself (Matos, 2012). Matos made in his study based

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<sup>22</sup> [www.lendingclub.com](http://www.lendingclub.com)

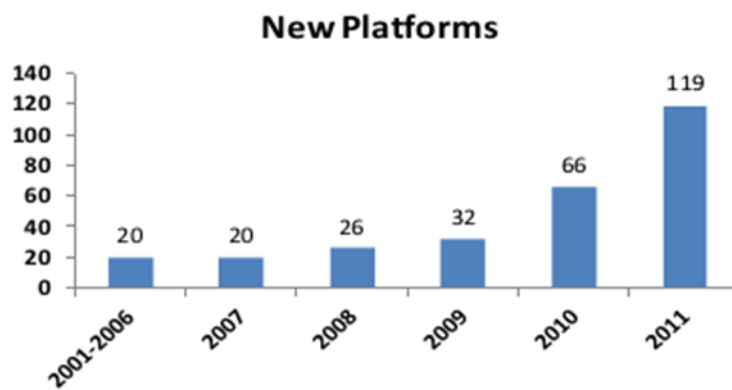
<sup>23</sup> [www.Zopa.com](http://www.Zopa.com).

<sup>24</sup> Ewing Marion Kauffman Foundation is an American foundation who focuses on entrepreneurship. They have an endowment of 1.83 billion dollars invested in a diversified portfolio. 249 million dollars are invested in venture capital and growth equity funds (Mulcahy, 2012)

<sup>25</sup> AngelList is an online website, founded in 2010, by Naval Ravikant and Babak Nivi. This website helps startups finding investors and angel investors.

on a great sample<sup>26</sup> of platforms where he studies “the relationship between the types of incentives (equity, revenue shares, prizes, interests and donations-no incentives) and the total of money raised by the platforms” (Matos, 2012:2). The interesting part on this study is how he shows the industry is transforming itself.

Figure 6 – New Platforms



Source: Matos (2012)

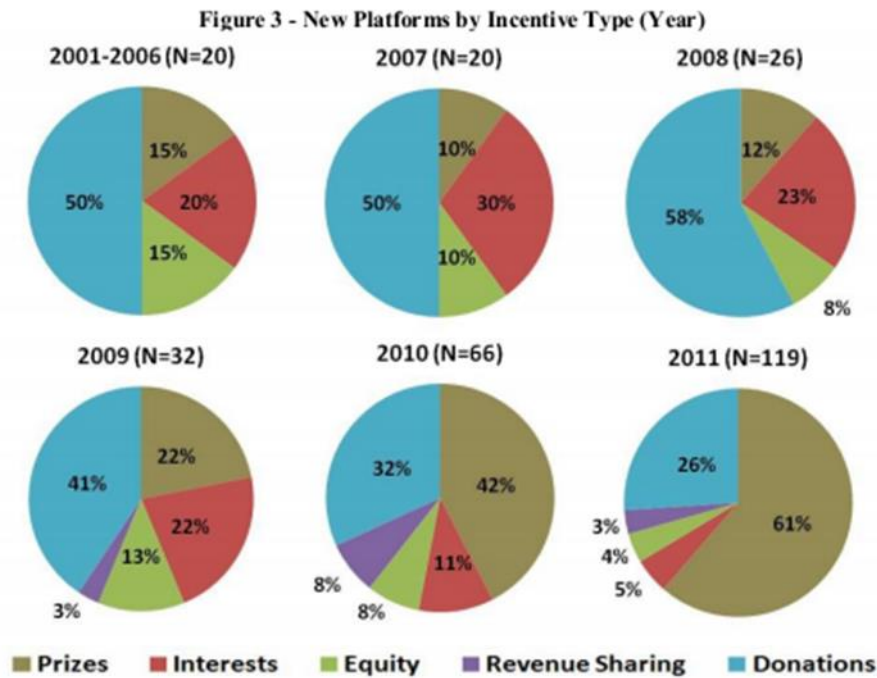
Figure 6 shows the growing number of platforms by year, with an average growth rate of 55,15%. It's also important to see that after the 2008 crisis the number of platforms grew exponentially. Between 2009-2010 the growth rate of platforms was 106,25% and between 2010-2011 it was 80,30%.

The number of platforms is growing but what types of platforms are appearing? Matos identifies quite well how the industry is changing (figure 3).

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<sup>26</sup> The sample that Henrique Matos created represents quite well the crowdfunding market. There are more or less 500 platforms worldwide. Matos in his study, didn't use all platforms but only those that are "alive". "Alive" means that: they are online and collecting money; they inform how much money they have collected; and are inserted in one of the 5 types of platforms (Prizes, Interests, Equity, Revenue Sharing and Donations).

Figure 7 – New Platforms by Incentive



Source: Matos (2012)

After 2008 there was a drastic transformation in the crowdfunding industry. From 2009 to 2011 the industry changed from Donations platforms, representing 50% of the industry in 2009, to reward platforms, representing 61% of the industry in 2011 (figure 7) (Matos, 2012).

Matos is not the only one identifying this tendency of growing and transformation. Massolution<sup>27</sup> made interest findings and similar findings. Massolution affirms that the crowdfunding industry is growing at a rate of 63% CAGR<sup>28</sup> in terms of the total amount of money raised (Empson, 2012). This firm also studied the type of platforms separately

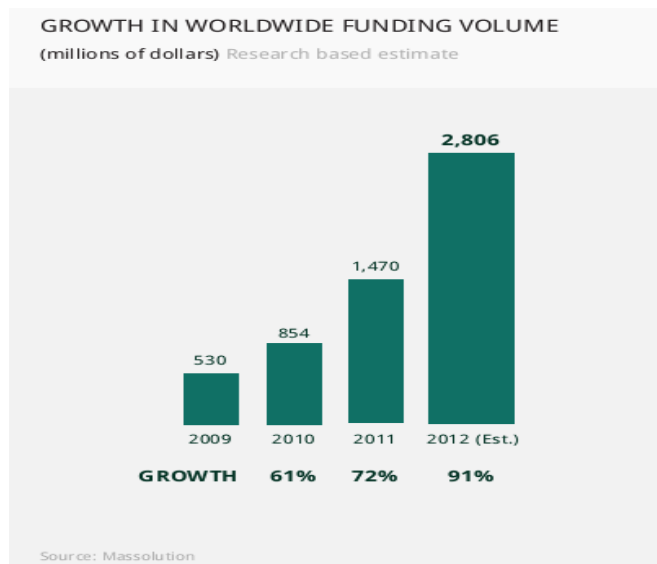
<sup>27</sup> Massolution is a research firm that specializes in crowdsourcing and crowdfunding. This firm was the first firm to make a Crowdfunding Industry Report with the data compiled from more than 170 crowdfunding platforms of the 452 platforms worldwide (38% of the total number of platforms). Carl Esposti, the CEO of Massolution is also the founder of crowdsourcing.org (Empson 2012)

<sup>28</sup> CAGR – Compound Annual Growth Rate

identifying their CAGR. Equity-based platforms grew 114% CAGR and it is interesting to see that 80% of the campaigns raised over 25 000\$ (Empson, 2012). Lending Platforms also grew 78% CAGR, raising 552 million dollars but the most staggering growing was from the reward/prizes who grew 554% CAGR (Empson, 2012). The slowest growing platforms were donations platforms, which only grew 43% CAGR, in spite of being the platforms that raised the most funds until now (Empson, 2012).

It was expected that the market had reach 5 billion dollars in 2013. Massolution estimated that value of the market in 2012 was 2.8 billion dollars with a growth rate of 91% (figure 4), if the growth rate continued to grow as expected we can conclude that industry reached 5 billion dollars in 2013.

Figure 8 – Growth in worldwide funding volume



Source: Massolutions

As can be seen, Massolutions (figure 8) also corroborates the transformation that Matos states in his dissertation: the industry is transforming and growing at a fast pace. A

reason for this, as has been said, is the 2008 financial crisis and the need of the entrepreneur to finance himself, through capital (equity crowdfunding), Debt (lending crowdfunding) and pre-selling of products (reward/prize crowdfunding).

## **2.7 Entrepreneurs are using this form of finance**

The entrepreneur is starting to use this new source of finance in detriment of other sources of finance.

Let's see the case of Eric Migicovsky referred in *Some Economic Principles of Crowdfunding* (Agrawal, 2013). Migicovsky invented a wrist watch called Pebble that interacts, through Bluetooth, with the operating systems Android and iOS.

Migicovsky, despite being experienced in entrepreneurship, being located near a great number of Angel Investors and affiliated with the Y-Combinator<sup>29</sup>, couldn't get 100 000\$ to finance the Pebble production line (Agrawal, 2013). On 11 of April of 2012 he decided to use crowdfunding to finance his project. Migicovsky launched a campaign in the Kickstarter<sup>30</sup> with a target to collect 100 000 dollars, offering a Pebble to those who offered 120\$. In 2 hours, this project collected the money needed and in 37 days this project received more than 10 million dollars (Agrawal 2013). This project had the 68929 supporters and the responsibility to supply 85 000 watches.

Until now Pebble is the biggest success story of a Kickstarter campaign because it has surpassed the money needed and collected more money than any other campaign.

The Pebble campaign is the third biggest campaign of all time but the biggest campaign of money collected in Kickstarter. The ten biggest campaigns of money collected are:

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<sup>29</sup> Y combinator it's a seed fund that provides seed money, advice and connections to startups in exchange for 7% of the Equity.

<sup>30</sup> Kickstarter is biggest reward/prize/donations platform on internet. [www.kickstarter.com](http://www.kickstarter.com)

**Table 1 -Ten biggest campaigns of all time**

Rank	Project	Category	Platform	Campaign End Date	Campaign target	Amount Raised
1 <sup>st</sup>	Star Citizen	Video Game	Kickstarter and Independent website	Ongoing	500 000\$	43 178 959\$
2 <sup>nd</sup>	Ubuntu Edge	Smartphone	Indiegogo	August 21, 2013	32 000 000\$	12 814 196\$
3 <sup>rd</sup>	Pebble	Smartwatch	Kickstarter	May 18, 2012	100 000\$	10 266 845\$
4 <sup>th</sup>	Ouya	Video Game Console	Kickstarter	August 9, 2012	950 000\$	8 596 474\$
5 <sup>th</sup>	Veronica Mars	Movie	Kickstarter	April 13, 2013	2 000 000\$	5 702 153\$
6 <sup>th</sup>	Torment: Tides of Numenera	Video Game	Kickstarter Independent website	April 5, 2013	900 000\$	4 188 927\$
7 <sup>th</sup>	Project Eternity	Video Game	Kickstarter Independent website	October, 16, 2012	1 100 000\$	3 986 929\$
8 <sup>th</sup>	Reaper Miniature Bones	Gaming Miniatures	Kickstarter	August 25, 2012	30 000\$	3 429 235\$

9 <sup>th</sup>	Double Fire Adventure	Video Game	Kickstarter	March 13, 2012	400 000\$	3 336 371\$
10 <sup>th</sup>	Project CARS	Video Game	World of Mass Development	November 11, 2012	3 108 600\$	3 142 808\$

Source: Self-Made

This list (Table 1) shows quite well how crowdfunding is getting relevance near entrepreneurs. Star Citizen video game shares the same similarities with Pebble in a way that the entrepreneurs of these projects have already a status build. Chris Roberts is a video game designer, programmer and director, famous for creating the Wing Commander Franchise<sup>31</sup>.

Roberts's recent project and funded project is the Star Citizen, a space trading and combat simulator video game that will take place in the XXX century in an analogue Roman society. This project is being made by people of many nationalities, for example Portuguese<sup>32</sup> and British.

They started a crowdfunding campaign, in October 2012, on their own website<sup>33</sup> using the crowdfunding plugin Ignitiondeck and a week later a crowdfunding campaign in Kickstarter. The campaign on Kickstarter lasted until November 2012 where they collected 2 134 374\$. The rest of the money they collected through their own website, achieving 43 million dollars in 28 of April of 2014. The Project Star Citizen, like the Project Pebble, shows that entrepreneur status or experience is very important to the success of the campaign but if the entrepreneur doesn't have a status build, crowdfunding is a good way to build it (Agrawal 2013).

<sup>31</sup> Wing Commander Franchise is a franchise of animated TV series, films and collectible card games based on the video game Wing Commander, developed by Origin Systems, where Chris Roberts worked for.

<sup>32</sup> The main composer of this Project is Pedro Macedo Camacho a Portuguese composer and pianist. Recently he worked in Civilization 5 and Witcher 3 and is currently working in Star Citizen. <http://www.musicbypedro.com>

<sup>33</sup> For Further information about this project the reader should visit this website: [www.robertsspaceindustries.com](http://www.robertsspaceindustries.com)

It's also easy to see in this list that crowdfunding is one of the main sources of financing of the cultural and creativity sector<sup>34</sup>, as some academic say (Hemer, 2011; Röhler, 2011). Nevertheless, as it has been said, crowdfunding transformed from donors platforms to reward platforms being the reason for this the shifting from a cultural sector, in the past, into an entrepreneurial sector, in the present (Röhler, 2011). The projects that collected the most money were from the creativity sector and 6 of out of 10 were video game projects. Nowadays entrepreneurial projects have a great influence in crowdfunding, especially in reward/prize platforms. The 10 biggest were made using a reward model and 8 of 10 projects collected money from the reward platform Kickstarter.

With time we might notice the appearing of new records since these records only contemplate the last two years and the reward model and the industry are still growing very fast.

## **2.8 Advantages of Crowdfunding**

These examples (Table 1) show that there are advantages in using this form of finance. Entrepreneurs who used crowdfunding as a way of financing themselves also had other advantages.

The advantages of using crowdfunding can be:

- Crowdfunding attracts more people to invest in the projects (example: Pebble attracted 68929 supporters);
- Shows the demand of the product (example: Migicovsky had to deliver 85 000 Pebbles);
- Crowdfunding can be used by many industries to finance many sectors (example: the entrepreneurship, creative and cultural sectors);
- It gives status and reputation to the entrepreneurs<sup>35</sup> ;

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<sup>34</sup> The creativity sector is a 556 billion euro market that include industries has: Software, Fashion, Design, R&D, and others (Röhler 2011)

<sup>35</sup> This is a two way street. Entrepreneurs that have a reputation have better chances to acquire finance. In a another point of view those who don't have reputation is a good way to do so (Agrawal 2013)

- Crowdfunding can help the entrepreneur acquire sufficient capital to install his project and in a second phase appeal to other forms of finance;
- It helps the entrepreneur “build a draft”<sup>36</sup> of the company so he can have leverage negotiating with other forms of capital (Venture Capital, bank loan, leasing, credit cards and others);
- The contact between the entrepreneur and the investors gives a feedback of the product.

Crowdfunding has many advantages and an Entrepreneur who knows how to use crowdfunding can receive these advantages. Entrepreneurs receive not only money but the advantages associated within. In a way we can say that the money in crowdfunding is “smart money”.

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<sup>36</sup> This means that the projects can gather enough money to implement themselves, that’s why reward/prize platforms are so famous, they can do pre-selling before the project is implemented

## CHAPTER 3 - WEB 2.0 AND CROWDFUNDING

### 3. WEB 2.0

The term “WEB 2.0” was first used by Darcy DiNucci in her magazine article, *Fragmented Future*, in January 1999. In this article DiNucci compares the WEB at the time with the evolution of the WEB, which she called WEB 2.0. It’s remarkable how she predicted the evolution of smartphones (giving the example of the PDA Palm) and the development of web pages from static pages to a user contribution environment. DiNucci also predicted that the WEB would mutate to different usages and would be applied to different types of hardware (DiNucci, 1999).

Regardless of being DiNucci who created the term Web 2.0, it was Tim O’Reilly<sup>37</sup>, founder of O’Reilly Media<sup>38</sup> who developed the concept of Web 2.0. This concept was born in a conference during a brainstorming between O’Reilly and MediaLive International (O’Reilly, 2005). The primary conclusion made in this conference was that the concept of Web 2.0 made sense and there was a turning point on the Web. With the birth and development of this concept the Web 2.0 Conference was created (O’Reilly, 2005).

O’Reilly considers that the dot-com bubble was the “turning point for the web”, with the burst of the bubble in the fall of 2001 (O’Reilly, 2005). This burst led to the end of a cycle of internet companies and the appearing of a new cycle of internet companies, where the web is treated as a platform. In the article “What is Web 2.0” he gives many examples as: the disappearing of Netscape and the rising of Google; the P2P<sup>39</sup> movement of BitTorrent *versus* Akamai; and the advertising fight between Doubleclick and AdSense.

Besides these examples it is still quite difficult to define what Web 2.0 is. O’Reilly defined on his site, O’Reilly Radar, this compact definition: “Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple

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<sup>37</sup> Tim O’Reilly is the founder of O’Reilly Media and member of the board of different companies as: Safari Books Online, Maker Media, and PeerJ. O’Reilly is also a supporter of free software and open source movements.

<sup>38</sup> O’Reilly Media is a media company founded in 1978, by Tim O’Reilly . This company publishes books, creates websites and organizes conferences.

<sup>39</sup> P2P services consists in the principle of decentralization of the internet, where data is broken into fragments and those fragments can be served from different locations

sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating a network effects through an “architecture of participation” and going beyond the page metaphor of Web 1.0 to deliver rich user experiences” (O’Reilly, 2005).

To understand Web 2.0, is also important to understand what the WEB 1.0 is and compare it to Web 2.0. It’s very hard to separate Web 2.0 from Web 1.0, at binary level, but there is a separation between what we call Web 2.0 sites (example: Facebook, Twitter, Youtube) from those that can be called “old Web” (Cormode, 2008).

In some way social networks (examples: Facebook, Twitter, Youtube) are the “children” of Web 2.0 where their users are “treated as first class objects” (Cormode, 2008). In fact, the contents created by the users, as O’Reilly puts it, is the new “intel inside”, in other words, data is the blood of Web 2.0 because of its democratic nature (O’Reilly, 2005; Cormode, 2008). This democratic nature allows the users to: exchange content of any kind (text, audio, image, video); comment on websites; share content from a website to another; update a website; and other types of things. In some way Web 2.0 relies on users to bring content to the websites and to create a viral spread (Cormode, 2008).

Comparing Web 2.0 websites with Web 1.0 websites, we can affirm that Web 2.0 is not static like its predecessor but in fact alive (the users can update, comment on it, and examine it) and in “permanent beta” (O’Reilly, 2005; Cormode, 2008). Besides these Web 1.0 sites aren’t interactive, for example the user can’t post a simple comment on the website. Web 1.0 website adopts a hierarchical structure with the front page leading to various subpages and sometimes updated with search functions (Cormode, 2008). This leads to a non-creation of content and a less or non-existing interaction between the users.

The software is also different comparing Web 2.0 and Web 1.0. The applications are open source where the users can change the applications and see how they work. Besides this software is free for everyone who wants to use it and change it (O’Reilly, 2005).

### **3.1 Patterns of Web 2.0**

Based on the book “Pattern Language” of Christopher Alexander, O’Reilly defines the design patterns of the Web 2.0:

Patterns of Web 2.0 (O’Reilly, 2005)

1. The Long tail – the small sites make up the bulk of the contents dividing the web in narrow niches;
2. Data is the Next “Intel Inside” – the websites and the applications need content creation by users to work, in other words they are data-driven;
3. Users add value – in Web 2.0 there isn’t a restriction to the participation of users, so the users can create value for the applications and websites;
4. Network Effects by Default – “only a small percentage of users will go the trouble of adding value” to the application. “Therefore: set inclusive defaults for aggregating user data as a side-effect of their use of participation”;
5. Some rights are reserved – there is a very low private restriction and the barriers are also low;
6. The Perpetual Data – when programs are connected to the internet they are ongoing services that are part of a normal user experience that can help develop and upgrade the programs;
7. Cooperate, don’t Control - Web 2.0 is a network of cooperating data services that use the data of others;
8. Software above the level of a Single Device – nowadays the PC is not the only way to connect to the internet, there are other devices that connect to the internet and connect between each other.

### 3.2 Crowdfunding and the Web 2.0

Ethan Mollick in his study *Dynamics of Crowdfunding: an exploratory study* identifies, maybe without knowing, the importance of Web 2.0 in crowdfunding (Mollick, 2013). In this study there is a table (figure 9) that shows in an indirect way the importance of some Web 2.0 tools as comments, updates and Facebook.

**Figure 9 – Table of Correlations between variables**

**Table 2**  
Correlations.

	Success	Goal	Funded	Backers	Pledge/backer	FBF	Updates	Comments
Success								
Goal	-0.15*							
Funded	0.11*	-0.02*						
Backers	0.10*	0.20*	0.10*					
Pledge/bkr	0.17*	0.10*	0.03*	0.01*				
Facebook	0.07*	0.00	0.01	0.02*	0.00			
Updates	0.41*	0.02*	0.08*	0.15*	0.09*	0.06*		
Comments	0.04*	0.16*	0.07*	0.57*	0.01	0.00	0.12*	
Duration	-0.14*	0.07*	-0.01	-0.01*	0.03*	-0.04*	0.042*	0.01

\* p < .05.

Source: Mollick (2013)

As can be seen in this figure (figure 9) the biggest correlation is between the “Backers”/Funders<sup>40</sup> and the “Comments” (0.57). This means that the more comments are written the more number of Funders will finance a project. The reasons for this are many: the Funders use “Comments” to communicate with the Entrepreneur; the Entrepreneur uses “Comments” to answer questions of the Funders; and all Funders can see the “Comments” written. The “Comments” can be a great way to establish a business relationship between the Funders or future clients of the product or service. It is important to refer that “Comments” are also correlated with the “Goal” (0.16), which is the second biggest correlation in the “Comments” line (figure 9).

<sup>40</sup> Mollick refers the Funders as Backers.

This Web 2.0 tool is definitely a great System of Feedback between the Entrepreneur and all Funders (all Funders can see the comments written) creating, indirectly, a business relationship with all Funders.

The Second biggest correlation can be interpreted by one of the biggest developments of Web 2.0, blogging. In fact, the name present in this figure (figure 9) is not blogging but “Updates” which is a form of blogging. The Entrepreneur can share with the Funder texts and images about the development of the Project so the Funders can have more information about the project. As can be seen there is a great Correlation between the “Success” of the Funding of the Project and the “Updates” (0.41). “Success” means that “projects that raise at least their goal are considered successful or funded projects” (Mollick, 2013:5).

“Success” is quite correlated with the information that the Entrepreneur gives through the “Updates” about his project. This information leads the Funders into funding projects increasing the “Success” of the campaign, as it can be seen in the correlation between the “Backers” and the “Updates” (0.15).

“Facebook” is also a Web 2.0 development and this table means that the Entrepreneur connected his Facebook Account to his platform campaign. This is used to create some credibility in the campaign giving the Funders personal information about the Entrepreneur. “Facebook” from the Web 2.0 is the least correlated with other variables, although, all correlations are positive. The biggest correlation of “Facebook” is with “Success” (0.07) which is a very small correlation compared with other correlations already mentioned.

The development of Web 2.0 had an important role in the growth of the crowdfunding Industry. Without the ability of the Entrepreneur and of the Funders to create content, it is very possible that the crowdfunding industry could never have developed this way. The tools (in this example: “Updates”, “Comments” and “Facebook”) created by the principles of the Web 2.0, allow, nowadays, the crowd to obtain information about the submitted projects on the crowdfunding platforms.

### **3.3 How Web 2.0 reduces Market Failures in crowdfunding**

The Principles of WEB 2.0 (i.e. create content inside of the platform) are a good way to fight the market failures. Agrawal says that there are three market failures: Adverse Selection; Moral Hazard; and Collective Action (Agrawal, 2013).

Adverse Selection and Moral Hazard are two typical market failures of any Source of Finance, although Collective Action is quite more related to crowdfunding.

Collective Action in crowdfunding is when Funders observe the funding decisions of others and adopt a position of free-rider on the information that others have gathered (Agrawal, 2013). If all Funders decide to invest based on the decisions of others everybody waits and nobody funds campaigns. In crowdfunding this is called the Bystander Effect. (Agrawal ,2013). Agrawal also says that Funders are two times more likely to invest in a campaign that reaches a target of 80% than a campaign that reaches 20% (Agrawal, 2013). However, it is possible that Funders do not invest in a campaign if the campaign is already at the end, creating the idea that it is unworthy to fund a campaign, this is another type of Bystander Effect (Agrawal, 2013).

It's easy to conclude that the major cause related to crowdfunding Market Failures is asymmetric information. This lack of information can be in many types: lack of information about the Industry; the Funders don't know the Entrepreneur; and there isn't relevant information, for example, business plans (Schwienbacher, 2010). This raises difficult questions to the Funders: How can the Funder choose the right campaign to invest (Adverse Selection)? ; How can the Funder trust that the Entrepreneur will behave properly according to what was promised (Moral Hazard)?

Using the Principles of Web 2.0 as a way of communication between Funders and Entrepreneurs, market failures can be fought. This way of communication, using the principles of Web 2.0, is what Mollick has identified as: Comments, Updates, Facebook – but is also the usage of video sharing sites, mashups, blogging and others. In the case of blogging Schwienbacher gives the example of Media No Mad<sup>41</sup>, a company who wanted to create a Web 2.0 travelling platform (Schwienbacher, 2010). Media Mad Founders established a relationship/communication with Investors through blogging and social network sites, proved

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<sup>41</sup> <http://medianomad.com/>

by a survey conducted by Schwienbacher, where 70% of the current investors had read articles on the blog (Schwienbacher, 2010).

The creation of content in online crowdfunding campaigns, through Web 2.0 principles, definitely helps to mitigate Market Failures because it creates information that helps the Funders make better decisions.

This mitigation of Market Failures is what Agrawal called the reputation signaling (Agrawal, 2013).

### **3.4 Signalization of the Reputation**

The goal of any crowdfunding campaign is to show that it is worth to invest in the campaign project. Most of the traditional financing relies on face-to-face interaction and personal relationships, although entrepreneurs only disclose information online that they want, creating then an online relationship of “trust me” (Agrawal, 2013).

This “trust me” relationship can be established through reputation divided by three types of tools:

- Quality Signals;
- Feedback System;
- Trustworthy Intermediaries.

In the case of Quality Signals, Agrawal makes references to other Authors as: Ahlers, who defends the importance of the level of education in the entrepreneurs of a project; and Hsu, who considers that the projects should have senior executives involved (Agrawal 2013). This type of information can be posted in an online campaign informing the funder, for example, through the connection of a social network profile (a Web 2.0 development), such as LinkedIn or a Facebook, to the online campaign.

The Feedback System is the reputation tool more related to Web 2.0, in the crowdfunding industry. Many online marketplaces and crowdfunding platforms have mechanisms for submitting feedback (Agrawal, 2013). One good example is comments, in

crowdfunding campaigns the opinion that the funders have on the product can usually be seen, if it was delivered or not and the sharing of the ideas that the funders have on the campaign/project. For this communication to happen there is the need from the entrepreneurs to answer the questions and desires of the funders.

Finally the Trustworthy Intermediaries are third-party intermediaries that provide an independent quality signal and create trust on the marketplace participants (Agrawal 2013). One good example is Kickstarter, who signalizes the projects that the company considers that are valid and trustful. Kickstarter acts as a third-party intermediary in this case.

Other Trustworthy Intermediaries are a Web 2.0 development, social networks. Agrawal says that Facebook and other Social networks (Example: Twitter and LinkedIn) are useful to validate information about the users' profiles and to reduce Moral Hazard (Agrawal, 2013).

Signalization of the Reputation of the campaigns can be a useful way to fight the information asymmetry, moral hazard problems and to separate the credible projects from those who are not.

### **3.5 Crowd Due Diligence**

Another way to overcome market failure, and to signalize the quality of crowdfunding campaigns, is through due diligence. This due diligence by the crowd relies heavily on Web 2.0 principles. The funders investigate and interact with the online campaign information given and content created by the entrepreneurs. More over and over internet platforms like Ebay or Wikipedia rely on the community. Ebay uses the community to detect fraud and Wikipedia relies on the community to protect entries of vandalism (Agrawal, 2013). In crowdfunding, the crowd due diligence has been very efficient, until now, and there isn't scientific proof and public information that proves otherwise. Agrawal gives an example of flagged project as fraudulent where two investors identified false information (stolen images) in the campaign<sup>42</sup> (Agrawal, 2013). The funders used a Web 2.0 principle, commenting on the online platform, informing that the campaign was a fraud.

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<sup>42</sup> <http://www.kickstarter.com/projects/273246798/mythic-the-story-of-gods-and-men/comments>

In another point of view Mollick on his 381 campaign sample only identified 14 campaigns as fraudulent, in other words, only 14 where total failure and a defraud of the projects at the time of the study (Mollick, 2013).

One type of information that due diligence relies on is accumulation of capital in the campaigns. Very often the crowd sees the accumulation of funding as a signal of quality which triggers an “information cascade” about the project (Agrawal, 2011; Agrawal 2013). This suggests that the success of a crowdfunding campaign depends on a “job screening” of the projects (Agrawal, 2013).

Agrawal also refers Freedman and Jin in how “the usefulness of the social networks” can overcome asymmetric information in online lending markets (Agrawal 2013). This opinion goes towards to the opinion of the Fidor Bank CEO that social networks/media can help establish a better relationship between those who intervene in the process (Cowie, 2013).

It can be argued that most of Funders don’t do due diligence and adopt a Herding Behavior when they see the accumulation of the capital, meaning that Funders make their funding decisions based on the funding accumulated and the information gathered by others, creating so the success of the campaign.

Crowd due diligence is very important to minimize the information asymmetry in the lack of face-to-face interaction. Crowd due diligence is a way to separate the true important campaigns from those which are not worth funding.

## CHAPTER 4 – METHODOLOGY

### 4.1 Goals of the Master Project

This project decided to find out what is the importance of the principles of Web 2.0 in a crowdfunding campaign. To find out this importance this master project started with a starting question/s, a question/s that the research of this master project tried to answer. The question was: ***What is the impact of Web 2.0 in a crowdfunding campaign/project?***

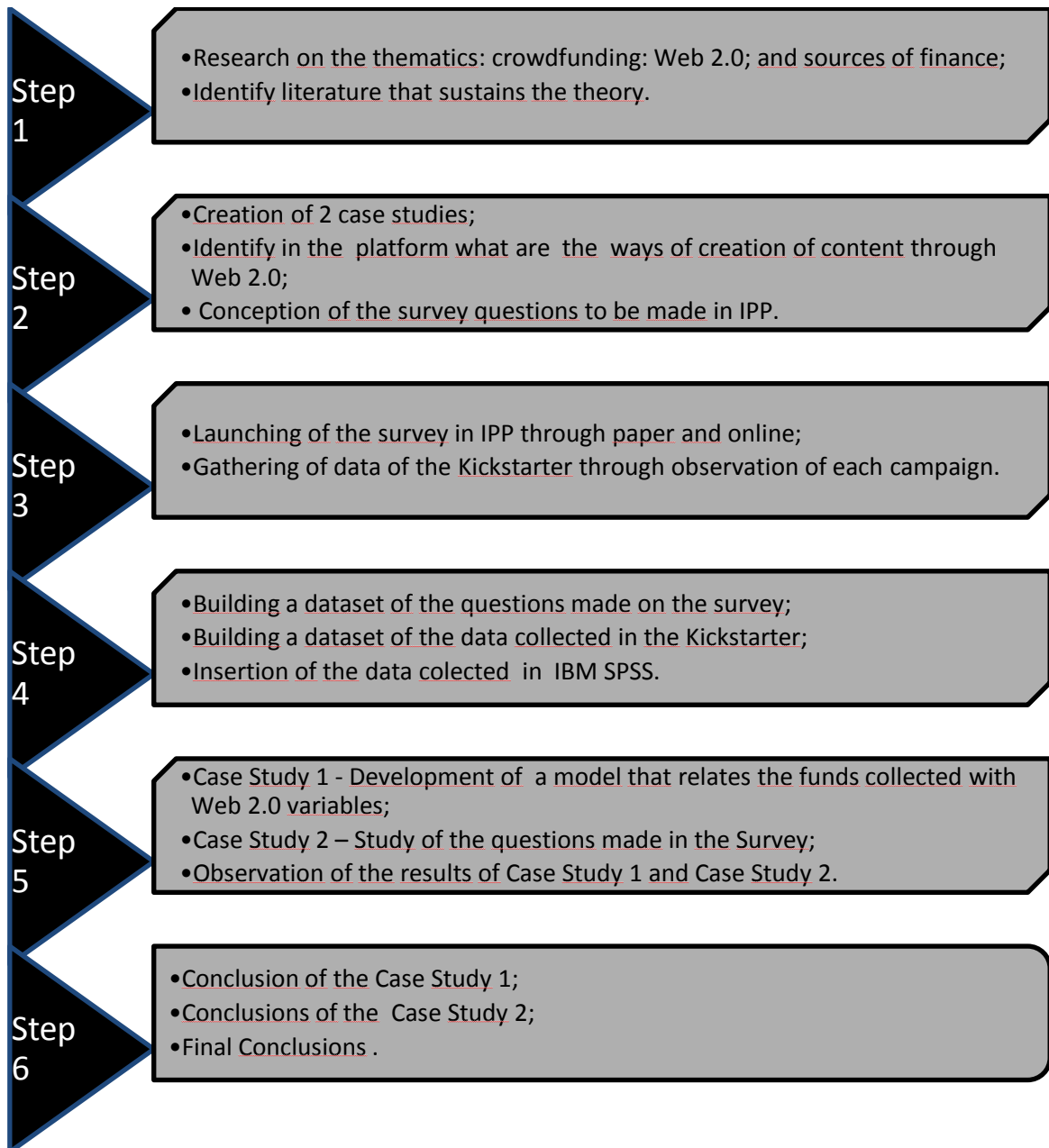
Another question that was made during the research was: ***What is the awareness of the society (especially the academic society) to matters such as crowdfunding and Web 2.0 principles?***

From these two questions we can extract the two main goals of this Master Project. Based on the importance of the principles of Web 2.0 in crowdfunding, this study decided to study the impact of the creation of content on crowdfunding platforms and the awareness of society to these matters. Therefore, the two main goals of this project are: **studying the impact of the creation of content in crowdfunding platforms and the awareness of the academic society to these matters.**

### 4.2 Project Research Structure

The following figure (figure 10) shows how this Master Project Study was conducted.

Figure 10 – Project Research Structure



Source: Self-Made

The Project started by making the already referred to starting questions. By trying to answer to those questions this study conducted a Literature Review on the following thematic: crowdfunding, Web 2.0 and Sources of Finance (Step 1).

Crowdfunding is a new source of finance that should be taken into account by the entrepreneur and it is a source of finance that incorporates other sources of finance from Equity and Debt. This Study tried to understand how this new form of internet finance works. It was easy to understand that the creation of content on the project/campaigns had deep impact on the funds collected. This creation of content was first addressed by the Web 2.0 terminology, so it was easy to conclude that there is a relationship between crowdfunding and Web 2.0.

The study found literature that sustained the theory of the impact of Web 2.0 in crowdfunding. One great example is from Agrawal, who identifies systems of Signalization of the Reputation in his 2013 study (Agrawal, 2013), being these systems quite related with Web 2.0. Another great example comes from Mollick (Mollick, 2013), who establishes a relation between different variables of the crowdfunding campaigns and platforms however his study doesn't focus on the importance of creation of content using the Web 2.0 principles.

After doing a Literature Review, two case studies were built based on the two initial questions and goals (Step 2). The Case Study 1 focused on a creation of a Model that explained the relationship between the money collected and the variables of creation of content, to do so, the ways of creation of content through Web 2.0 in crowdfunding platforms had to be identified. These ways identified, were updates, comments, videos, social networks (Facebook and number of friends) and Funders (this variable was introduced because funders are those who create content).

The Case Study 2 focused on the second goal/question of this Master Project: the awareness of the society (especially the academic society) to matters such as crowdfunding and Web 2.0 principles. A number of questions were created to be made to the persons of an academic institution, beyond this these questions focused in crowdfunding and Web 2.0 subjects. It's important to refer that the questions were conceptualized after a literature review and based on that literature review. All questions were made in Portuguese as it can be seen in appendix 2.

The next step (Step 3) was the gathering of data. The first thing to do was the launching of the survey in I.P.P. The survey was conducted physically in the institution and

online. Another gathering of data was through observation of each Kickstarter campaign. The data was collected manually by observing the number of variables, for example the number of updates or if the campaign had a social network associated. The campaigns used to build the sample of case study 1 can be seen in Appendix 1.

Following step (Step 4) was building a dataset of the answers made on the survey and also from the data collected on the Kickstarter platform. The goal was to build a dataset on SPSS Statistic and doing profound study of the samples.

This Master Project after the insertion of the data on SPSS, conducted many studies (Step 5). In case study 1 a linear model was built, the goal of this model was to create a relation between the funds collected and the Web 2.0 Variables. The target was to find variables that explained the funds gathered and to build a model that explained this relation. This study decided to use Linear Models because this way it could study the significance of each variable.

In case study 2 a profound study of the graphs was conducted and a crosstab between the questions was made. Case study 2 is deeply connected with case study 1, the reason for this was to try to understand the awareness to subjects such as crowdfunding and Web 2.0. Case Study 2 focused in data regarding the following subjects:

- Internet Activity;
- Comments;
- Videos;
- Internet Platforms;
- Web 2.0 Concept;
- Advantages of Web 2.0;
- Veracity of web 2.0;
- Sources of Finance;
- Crowdfunding;
- Contribution to Crowdfunding Project;
- Crowdfunding Platforms.

The Internet Activities focused in knowing what the activities people generally do on the Internet were, related with this question, a question of doing activities such as commenting in a crowdfunding platform and the importance of video in a crowdfunding

campaign, was also made. The goal was to understand if persons created content, not only on the internet, but also in crowdfunding platforms.

The question about Internet platforms was to identify what platforms people know, i.e., platforms before Web 2.0 or Web 2.0 platforms. Associated with this question comes the question of Web 2.0 concept, this master project wanted to see if people knew the Web 2.0 concept. Related with the concept question come the advantages of Web 2.0 and veracity of Web 2.0. Many marketers, academics and authors argue that knowing the Web 2.0 is important to promote product and companies. Related with the advantages of Web 2.0, is the trust on the veracity of the content created by others using the Web 2.0 principles, this master project wanted to know if people believe and trust on all information given by third parties (example: social networks information).

Sources of finance, it's also a subject that this Master Project centers in. The survey also tried to know which sources of finance people know and which type of source of finance (Equity or Debt) is more common. Connected with the subject of sources of finance there is crowdfunding a new source of finance that this study addresses too.

Crowdfunding is a subject that the survey also concentrates in. The survey questioned the persons, if they knew this new source of finance, if they ever contributed to a crowdfunding project and if they knew any crowdfunding platform.

Finally, this study finishes with the Conclusions (Step 6). After a descriptive analysis of each case study this Master Project makes some conclusions of each case study. The Master Project also does a final conclusion of the work made and speculates what can happen.

## **CHAPTER 5 – CASE STUDIES**

### **5 Case Studies**

The First case study established a relation between the money collected and the ability to create content using the principles of Web 2.0. This case study focused on campaigns of Kickstarter crowdfunding platform and by studying each campaign one by one a dataset was collected. It's also important to refer that Kickstarter is the biggest platform in the Industry right now.

The Second case study focused: on the awareness of the usage of Web 2.0 principles, on the usefulness of crowdfunding as a source of finance; on the content creation by the users; and on the perception of the academic world for these questions. To deepen this study a survey was made to the academic world of the Polytechnic Institute of Portalegre (I.P.P.<sup>43</sup>).

In conclusion, these two studies will try to understand many things such as the importance of the creation of content in crowdfunding platforms (first case study) and the awareness for these subjects (second case study).

### **5.1 Case Study 1**

The Goal of “Case Study 1” is to create a Model that explains the relation between the creation of content through the principles of Web 2.0 and the money collected.

To prove the importance of the creation of content a dataset has been collected. Data from the campaigns of the Kickstarter platform where gathered.

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<sup>43</sup> Instituto Politécnico de Portalegre [www.ipp.pt](http://www.ipp.pt)

### **5.1.1 Data Information**

During this work a dataset was collected from the Kickstarter platform. From 152 689 crowdfunding campaigns, 122 campaigns were selected based on some factors.

These 122 campaigns are all Technology Campaigns, in other words, techfunding. Techfunding is a new way of funding of technological entrepreneurs through crowdfunding, usually through the pre-selling of products.

This study focused only on Technological campaigns around the world especially those who were “most funded”, being the total of these campaigns 5066. From these 5066 campaigns, the study focused only on those which were “staff picked”. “Staff picked” are campaigns selected by the editorial team of Kickstarter. The editorial team searches every day for something quite interesting in the campaign such as a fun video, a good reward, a great story or even an exciting idea. The number of “staff picked” campaigns were 651.

Besides selecting only “staff picked”, were also chosen only those campaigns that were “successful” in reaching the goal and even surpassing it, meaning that these campaigns surpassed 100% of funding. The reason to have chosen only successful campaigns was that successful campaigns eliminate the first funders of the project that usually are Family and Friends. For this reason this study will only focus on those who fund in a campaign for other reasons, such as the impact of Web 2.0. The number of successful campaigns with 100% raised was 451.

From those 451 campaigns, 122 were chosen to take part in the sample. These 122 campaigns were chosen based on the money collected that was between 6.225.354 USD and 90.928 USD. 8 of these campaigns were over 1 million dollars and 116 campaigns were between 1 million dollars and 90 thousand dollars.

The total money collected by this campaign was 48.440.817,36 USD and the total of the Goal expected was 11.184.363 USD. This means that the campaigns collected 37.256.454,36 USD more than the expected. The maximum value collected was 6.225.354 USD, this value was collected by Pono music player which was the 3rd most funded project in Kickstarter. On average these 122 campaigns collected 397.055,88 USD but the median was only 173.511 USD.

A total of the Funders who funded these campaigns were 302516. The maximum number of Funders who funded one campaign was 26457, this campaign was the 3 Doodler, a 3D printing pen capable of drawing in open air. The minimum number of Funders who funded one campaign was 189, this campaign was OpenBeam Kossel Pro, a 3D Printer. Besides this, on Average each campaign had 2479 Funders and each Funder contributed, on average, with 160 USD per campaign.

The first campaign of this sample started on 24 April 2010 and the last campaign ended on 6 June 2014. These campaigns had a total of 1246 updates during the campaign, being the maximum value of updates 36 and the minimum value of updates 0. On average the entrepreneur made 10 updates per campaign, during the campaign.

The number of comments during the campaign was 40401, being, the maximum value on a single campaign, 7760 comments. On average each campaign had 331 comments.

It's also important to refer that all campaigns had a video and 62 campaigns had a Facebook page connected to the campaign.

### **5.1.2 The Model**

This Study/Model wants to show the importance of the creation of content in crowdfunding platforms, based on the Web 2.0 principles

The Dependent Variable of this Model is the Money Collected by the campaign minus the Goal of the campaign (*MoneyminusGoal*). The reason for this, as it has been mentioned, is that campaigns that surpass the Goal eliminate the first funders of the project that usually are Family and Friends. This way the Model can focus only on the impact of Web 2.0 in the campaigns. The study gathered the values of the Goals that the entrepreneurs wanted to achieve and subtracted to the value of the money that they really achieved. By doing this the dependent variable *MoneyminusGoal* was created.

Based on the principle of creation of content this study focused in two variables that are quite related with the principles of the Web 2.0, *Comments* and *Updates*. Comments during the campaign establish a way of communication between Funders and Entrepreneurs in

a way that they talk to each other about the project. *Updates* during the campaign are information created by entrepreneurs about the project to inform the funders. This form of information that obeys to the principles of Web 2.0, in a way, that enables the entrepreneur to create content.

Another variable related with Web 2.0 is the social network *Facebook*. Including the Facebook in the Model means that the campaign has or has not a Facebook account associated. The Facebook variable will be a dummy variable (assumes 0 if the campaign doesn't have a Facebook account associated or 1 if the campaign has a Facebook account associated). Another variable analogous to the Facebook variable is the *Facebook Friends*, which is the number of Facebook Friends that the Entrepreneurs have. The importance of this variable is to study the importance of personal/social networks in a crowdfunding campaign.

The variable *Video* is a variable that informs if the campaign has video or not. Usually the entrepreneurs create a video informing the funders of utility of the product they are offering or the benefits of that campaign. Entrepreneurs usually use Web 2.0 platforms such as Youtube to post videos on crowdfunding platforms, Kickstarter even advises the entrepreneurs on creating videos so the entrepreneurs can collect more money. This variable is also a variable Dummy that assumes the value 1 if the campaign has a video and 0 if the campaign doesn't have a Video.

Finally we come to the variable Backers. Backers or Funders, as it has been referred to in this study, are the number of persons who finance a campaign. This is a variable which is not directly connected with Web 2.0, however is the users (Funders) of a crowdfunding campaign those who create content (the main principle of Web 2.0) in platforms. By not including the Backers in the Model the study would be making an error, since the "user" is the person creating content (like the entrepreneur) in the crowdfunding platform.

In conclusion we can write the Model in this way:

$$\begin{aligned} & \text{MoneyminusGoal} \\ &= \beta_0 + \beta_1 \text{Comments} + \beta_2 \text{Updates} + \beta_3 \text{Facebook} \\ &+ \beta_4 \text{Facebook Friends} + \beta_5 \text{Video} + \beta_6 \text{Backers} + \varepsilon \end{aligned}$$

### 5.1.3 The Study of the Results

A dataset was created in the program IBM SPSS. This dataset included 122 campaigns of the Kickstarter platform.

With the dataset created in SPSS a Regression was created based on the following model.

$$\begin{aligned}
 & \text{MoneyminusGoal} \\
 &= \beta_0 + \beta_1 \text{Comments} + \beta_2 \text{Updates} + \beta_3 \text{Facebook} \\
 &+ \beta_4 \text{Facebook Friends} + \beta_5 \text{Video} + \beta_6 \text{Backers} + \varepsilon
 \end{aligned}$$

**Table 2– Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,855 <sup>a</sup>	,731	,720	350960,22621

a. Predictors: (Constant), Backers, Facebook, Updates\_during\_Campaign, Facebook\_Friends, Comments\_during\_campaign

**Source: A SPSS Table self-Made**

This Model is fairly good. Looking at the Adjusted R Square, 72% of the Model (Table 2) is explained by the Variables of the Model. This is fairly good because more than half of the Model is explained, meaning that the Money collected can be explained by these Variables.

It's also important to check which Variables are important on this Model. To do this we must see the significance of the variables in the Model.

**Table 3 – Coefficients Table**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	97954,005	71621,743		1,368	,174
1 Comments	581,240	50,023	,714	11,620	,000
Updates	-3061,967	5560,415	-,028	-,551	,583
Facebook	-89958,580	78092,488	-,068	-1,152	,252
Facebook_Friends	-4,201	72,080	-,003	-,058	,954
Backers	37,614	10,523	,213	3,574	,001

a. Dependent Variable: MoneyminusGoal

Source: A SPSS Table self-Made

Based on this Table (Table 3) we can rewrite the Mode this way:

$$\hat{Y} = 97954,005 + 581,240 X_1 - 3061,967 X_2 - 89958,580 X_2 - 4,201 X_3 + 37,614 X_4 + \varepsilon$$

Based on this Model we can conduct a test

$$H_0 : \rho^2 = 0 \text{ or } \beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$$

$$H_1 : \rho^2 \neq 0 \text{ or } \exists i: \beta_i \neq 0 \text{ (} i = 1,2,3,4 \text{)}$$

By looking to this table (Table 3) it can be observed, through the Significance/P-value (Sig.), the importance of each Variable.

Social Networks are not important as suspected. *Facebook* has a very low significance 0.252 ( $p < 0.05$ )<sup>44</sup> (Table 3) and has a negative impact on the Money collected. Having a Facebook account associated with the crowdfunding campaign isn't relevant for the campaign. The same happens with the variable *Facebook Friends*, having a lot of Facebook Friends is not relevant for the Model because it also has a very low significance 0.954 ( $p < 0.05$ ) (Table 3). It's important to refer that the impact of the variable "Facebook Friends" is less negative than the variable "Facebook".

The variable *Updates*, can be considered a kind of blogging of the entrepreneurs in a way they inform the Funders/Backers of the updates in the project. This is very common in crowdfunding, in the case of Media No Mad they used a blog to inform the investors of the project. Blogging is an innovation of the Web 2.0 but in this Model *Updates* are not very relevant. *Updates* have very low significance in this Model 0.583 ( $p < 0.05$ ) (Table 3) and also have a negative impact in the money collected. This negative impact on the money collected can be probably explained by the quality of the information given by the entrepreneurs to the Backers/Funders, if the information is not good the Funders will probably fund less the campaign.

The number of Backers/Funders is also an important variable of any crowdfunding campaign or crowdfunding model, not including this variable would be a mistake. This variable is not directly related with Web 2.0 but it is the Backers/Funders who communicate through comments or other ways in crowdfunding campaigns. In other words, Backers/Funders create the content, using the Web 2.0 principles, inside crowdfunding campaigns. The variable *Backers*, as suspected, has significance in this Model, 0.001 ( $p < 0.05$ ) (Table 3) and has a positive relation with the money collected.

Finally we come to the variable *Comments*. Comments in crowdfunding campaigns have been the best way of communication between the entrepreneurs and the Funders. Funders share ideas and information (Agrawal, 2013) with the entrepreneur and give a feedback of the campaign. It is common to see conversations taking place, in campaigns comments pages, between the entrepreneur and the Funders.

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<sup>44</sup> Please notice that to be significant must have a p-value < 0.05

This “Comments Conversations” are open conversations for everybody to see. This helps campaign in collecting money because it creates trust around the campaign and it is open source information of the campaign, so the crowd can do due diligence. Comments is a way to Funders and Entrepreneurs create content (usually text) around the campaign, in a sense, is a way of communication. This way communication can only have happen thanks to the development of Web 2.0 and the ability to create content in platforms. Commenting can be a good way to establish a social relationship, through the platform, around the campaign. This way of communication is a good way to build trust between the entrepreneur and the Funders

The Variable *Comments* in this Model has the best significance level 0.000 ( $\rho < 0.05$ ), meaning that they are quite important to collect money for the campaign. For each comment written the impact on the money collected will be 581, 24 USD, *ceteribus paribus*.

It's important to refer something about the variable *Videos*: All campaigns had a video presentation of the project. This quite normal, Kickstarter recommends entrepreneurs to make a video to promote the campaign and to explain better the project to future Funders.

#### 5.1.4 Table of Correlations

By seeing the significance of the variables, this study discovered which variables are important. The two most important variables of this Model were the *Backers* and *Comments*.

Based on this information an analysis of correlation was conducted between those variables and correlating it, also, with variable *MoneyminusGoal*.

This was the following table of correlations.

**Table 4 – Table of Correlations of the Model**

		MoneyminusGoal	Comments	Backers
MoneyminusGoal	Pearson Correlation	1	,835**	,627**
	Sig. (2-tailed)		,000	,000
	N	122	122	122
Comments	Pearson Correlation	,835**	1	,588**
	Sig. (2-tailed)	,000		,000
	N	122	122	122
Backers	Pearson Correlation	,627**	,588**	1
	Sig. (2-tailed)	,000	,000	
	N	122	122	122

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: A SPSS Table self-Made

As can be seen in this Table (Table 4) there is a great correlation between the variable *MoneyminusGoal* and the variable *Comments*. The value of this correlation is almost near 1<sup>45</sup> (0.835) (Table 4), meaning there is a very big correlation between them. Besides that, the level of significance (0.000) is very high meaning that there is a strong relationship between the money collected and the comments made. This says two things, first that comments help collect money and second comments offer information to the *Backers/Funders* (crowd due diligence).

It's also interesting to see that there is a correlation between the *Comments* and the *Backers* (0.588) (Table 4) and the significance level is also very good (0.000). This can mean many things: that the *Backers/Funders* use this form of communication among them; the numbers of *Backers/Funders* who fund a campaign are attracted by the comments posted; the larger number of *Backers/Funders* a campaign has, the larger number of comments will be made; and comments help the crowd (*Backers/Funders*) make due diligence.

<sup>45</sup> Please notice that correlations are between -1 and 1, being -1 not correlated and 1 total correlated.

## **5.2 Case Study 2**

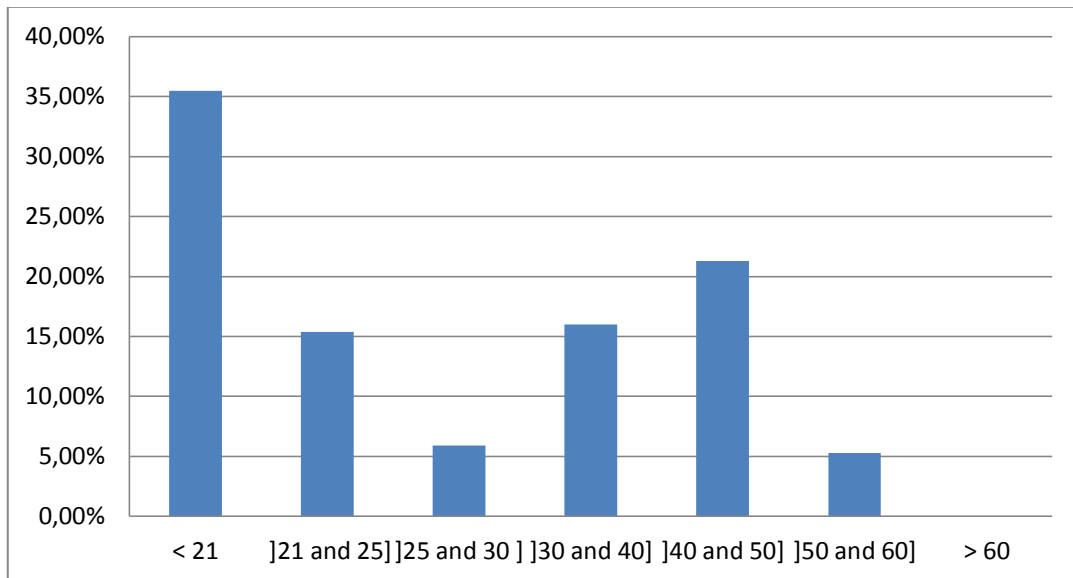
Between September and November of 2014 a survey was conducted in IPP. The goal of this survey was to make exploratory study to see if the society is aware of themes like crowdfunding and Web 2.0 and related subjects. A second goal of the survey was to measure some characteristics of a social group, in this case the population of a superior education institution). The surveys where sent to an Institution of 500 students located in the town of Portalegre (Portugal).

The data collected was subjected to a treatment through IBM SPSS statistic program. Based on this sample a SPSS a descriptive analysis was made.

### **5.2.1 Data Information**

The surveys had 169 responses (92 women and 77 men). The ages can be seen bellow in Graph 1.

**Graph 1 - Ages of the sample**

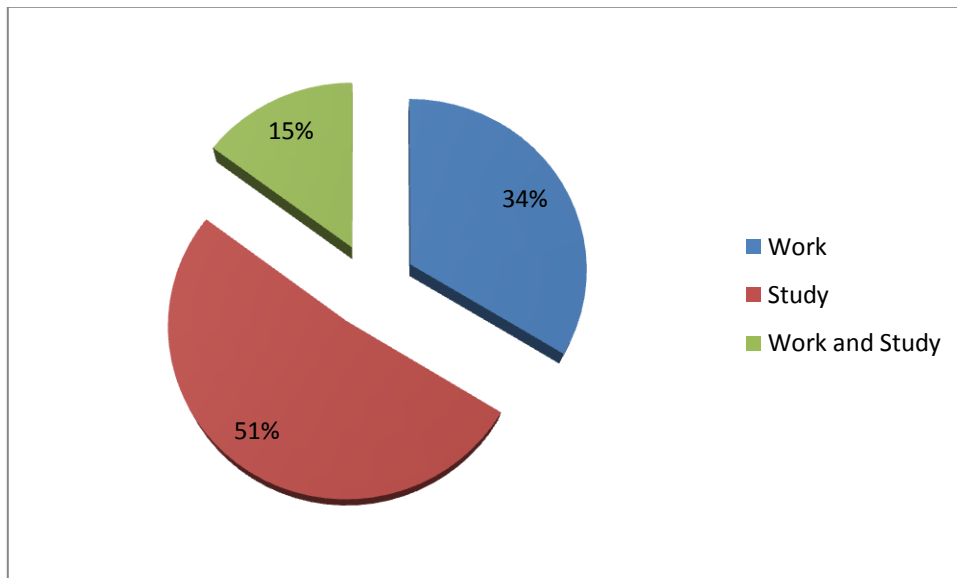


**Source: Self-Made**

As can be seen in the Graph 1, the vast majority of the persons who answered to the survey were persons below the age of 21. This concentration on that age happens because most of the students of this Institution are doing bachelor's degree. Another concentration of persons is between the ages of 30 and 40.

It is also important to refer that there is a great number of persons who study and also work. Some cases identified themselves as being working and not studying, as it can be seen in the Graph 2, below. 51% of the persons said they have been studying, 34% said they have been working and 15% said they have been studying and working.

Graph 2 – Occupation

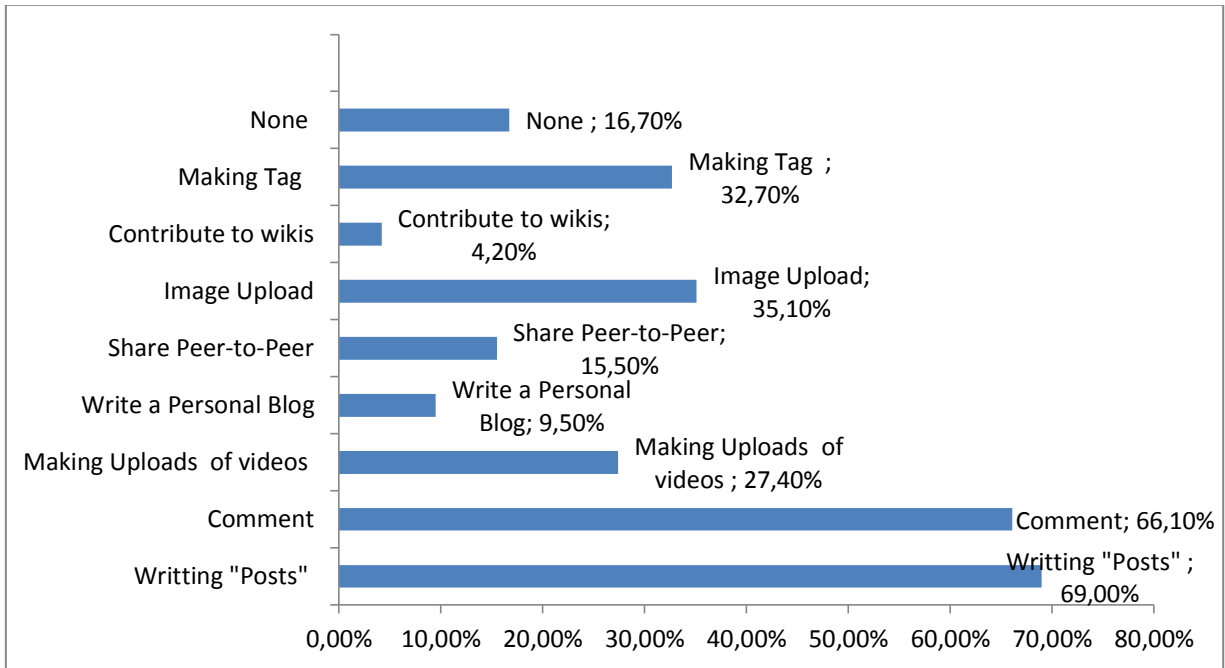


Source: Self-Made

### 5.2.2 Activities

This Survey questions the persons with the goal to find out which are the activities that they do more often on the Internet.

Graph 3 –Activities



Source: Self-Made

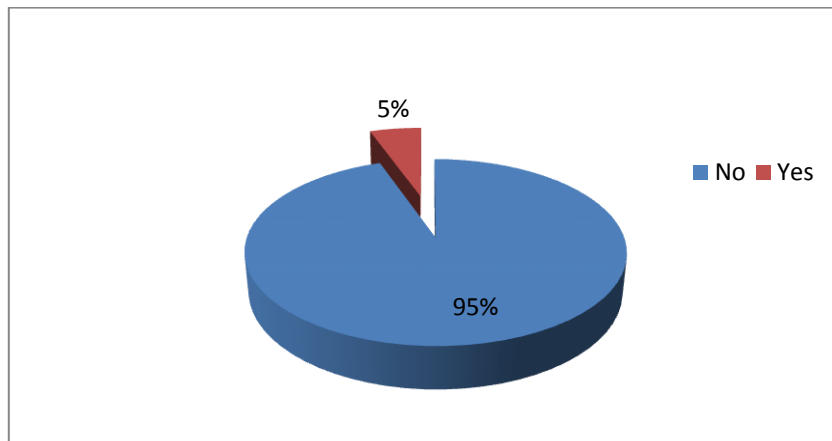
In this sample 69% of the cases (Graph 3) who responded to the survey said they wrote posts and 66.10% said that they commented online. The third, fourth and fifth biggest activity is uploading images, making tags and uploading videos, with 35.10%, 32.70% and 27.40%, respectively.

Other activities related to Web 2.0, like sharing in peer-to-peer (15.50%) and writing a blog, (9.5%) also have some relevance. Wiki Contributions is the lowest (4.20%) activity and “None” (persons who didn’t do any of these activities) also has a very high percentage (16.7%).

### 5.2.3 Comments

It's also important to observe if people also comment in crowdfunding platforms. A question was asked to this sample: have you ever commented on a crowdfunding page?

**Graph 4 – Answer to the Question: Have you ever commented on a crowdfunding page?**



Source: Self-Made<sup>46</sup>

As can be seen, although 66.10% of the cases answered to have commented only 5% of the cases answered that they have commented in a crowdfunding platform (Graph 4). The number of persons who comment in crowdfunding platforms is very small. This illustrates that people don't visit crowdfunding platforms and don't interact with entrepreneurs, in spite of recognizing the importance of this form of finance.

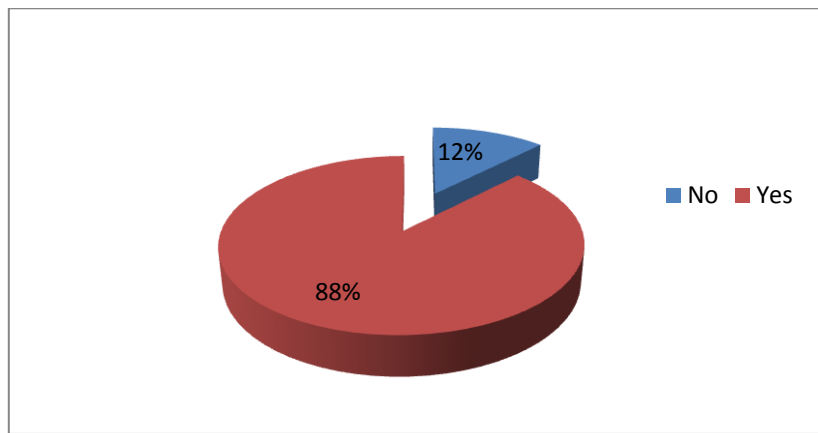
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<sup>46</sup> 166 is the valid N being 3 the missing cases

### 5.2.4 Videos

Another important question is the importance of a Video on a crowdfunding campaign.

**Graph 5 - Answer to the question: Do you find it important that a crowdfunding campaign has a video presentation?**



**Source: Self-Made**

In Graph 5 it can be seen that 88% of the cases answered “Yes”. This shows the importance of a video uploading for a crowdfunding campaign. Once again we see the importance of Web 2.0 through Video Websites like Youtube. Videos are very important for a crowdfunding campaign because they are a great way to inform funders about the project.

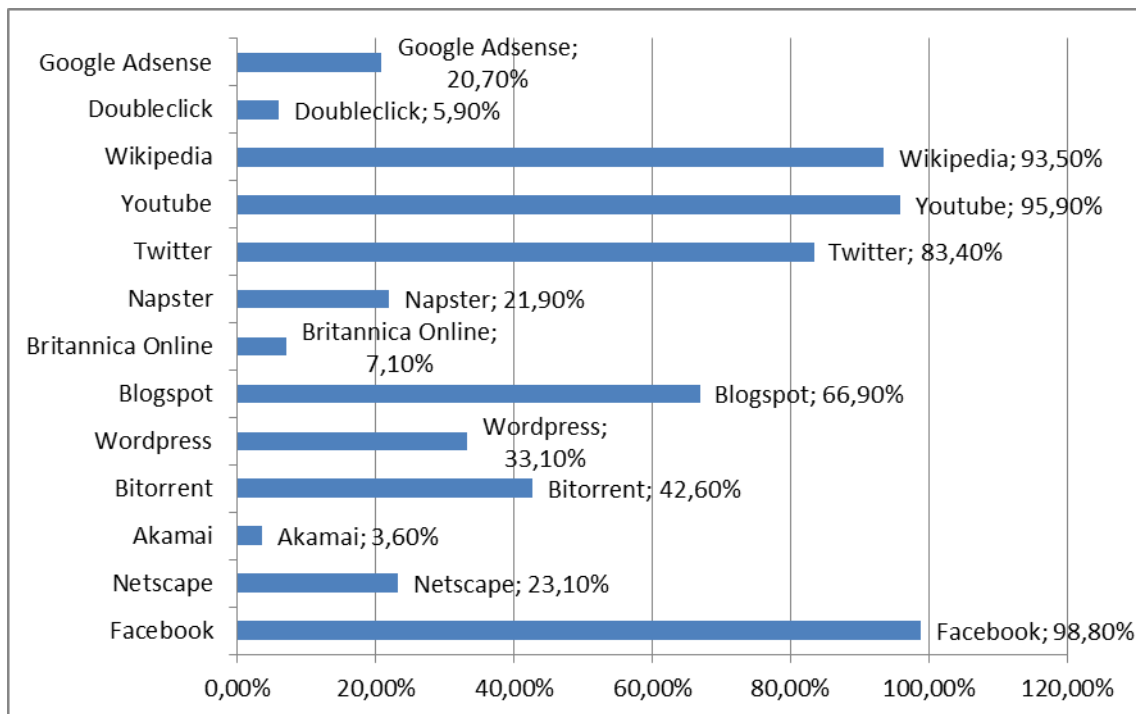
This goes towards to the sample of the variable video on Case Study 1, all campaigns had a video. Videos are definitely very important in crowdfunding campaigns.

### 5.2.5 Internet Platforms

This study tried to find out if people know Web 2.0 platforms and if they knew what O’reilly identified as before Web.20.

It was included on the survey social networks (Twitter and Facebook), blog platforms (Wordpress and Blogspot), wikis (Wikipedia), peer-to-peer (Bitorrent and Napster), but also programs, companies and platforms that were way before Web 2.0 (Netscape, Akamai, Britannica Online and DoubleClick)

Graph 6 – Internet Platforms



Source: Self-Made

As can be seen in Graph 6 the most known are the Web 2.0 platforms, especially social networks, Wikipedia and Youtube. Social Networks as Facebook and Twitter are well known amongst the people who answered to the Survey. 98.80% of cases knew Facebook and 83.4% knew Twitter and Youtube, the famous video website, is known by 95.90% of the cases. On the other hand, Wikipedia, the famous online encyclopedia, also has a huge percentage of cases, with 93.5%. In case of blogging platforms, Blogspot is the most known platform of the sample with a percentage of 66.9% of the cases. In the example of peer-to-peer, Bitorrent leads the way with 42.6% of the cases and Napster only has 21.9%.

In the case of software companies and platforms that were way before of Web 2.0 we can identify Netscape, DoubleClick, Britannica Online and Akamai. In these cases Netscape is the best well known, Netscape is known by 21.9% of the cases compared with DoubleClick with 5.9%, Britannica Online 7.10% and Akamai 3.6%.

**Table 5 – Platforms by Age**

AGE		Facebook	Netscape	Akamai	Bitorrent	Wordpres	Britannica	Blogspot	Napster	Twitter	Wikipedia	Youtube	Doublecli	Google Ads
< 21	%	36,10%	23,10%	16,70%	32,40%	16,10%	25,00%	38,10%	16,20%	35,00%	35,70%	34,20%	20,00%	25,70%
21 - 25	%	15,70%	10,30%	33,30%	23,90%	23,20%	8,30%	14,20%	18,90%	17,10%	15,30%	16,10%	10,00%	20,00%
25 - 30	%	6,00%	0,00%	0,00%	8,50%	10,70%	0,00%	6,20%	8,10%	5,70%	5,70%	6,20%	0,00%	0,00%
30 - 40	%	16,30%	20,50%	0,00%	18,30%	19,60%	33,30%	18,60%	29,70%	18,60%	16,60%	16,80%	20,00%	20,00%
40 - 50	%	20,50%	41,00%	33,30%	15,50%	25,00%	33,30%	20,40%	21,60%	20,00%	21,70%	22,40%	40,00%	28,60%
50 - 60	%	5,40%	5,10%	16,70%	1,40%	5,40%	0,00%	2,70%	5,40%	3,60%	5,10%	4,30%	10,00%	5,70%

**Source: Self-Made**

Netscape, within the persons who answer to this option<sup>47</sup> (Table 5), is better known by people of ages between 40 and 50, 41% of the persons in this age knew Netscape. The same happens with Britannica Online, 33% of the persons in this age knew Britannica Online. DoubleClick also had 40% in people of ages between 40 and 50. Considering that these

<sup>47</sup> For Example: 39 persons selected this option and 16 of them where in the age [40-50[ years old. All values in this table are from persons who answer this option.

programs and websites were very famous in the 90's, it is quite normal that persons in this age knew this type of programs and websites compared to younger generations.

Web 2.0 Platforms are known better by Younger Generations (< 21 years old). Facebook, BitTorrent, Blogspot, Twitter, Wikipedia, Youtube are better known by younger generations. The only exception is Napster, Google AdSense and Wordpress. The explanation for Napster is that, besides being a website that used Web 2.0 principles, it was founded in 1999 (previous to Web 2.0 concept) in the turn of the century, being an important player in peer-to-peer music sharing. Napster was very famous at the time because of its controversial lawsuits and for being a very large peer-to-peer music-focused online service, with 80 million registered users.

It's also quite interesting to see that women tend to know Web 2.0 platforms better than men. On the other hand men tend to know better programs and sites that used principles before the Web 2.0. As can be seen in Table 6, Netscape, Akamai, Doubleclick, Britannica Online, are better known by men, being the exception Napster, BitTorrent, Wordpress and Napster. Also important to notice is the high percentages.

Based on this sample we can suspect that men tend to make more peer-to-peer downloads than women.

**Table 6 – Platforms by Sex**

		Facebook	Netscape	Akamai	BitTorrent	Wordpress	Britannica	Blogspot	Napster	Twitter	Wikipedia	Youtube	Doubleclick	Google Ad
Sex	Female	55,10%	28,20%	16,70%	33,30%	37,50%	25,00%	50,40%	24,30%	56,70%	53,80%	54,90%	20,00%	28,60%
	Male	44,90%	71,80%	83,30%	66,70%	62,50%	75,00%	49,60%	75,70%	43,30%	46,20%	45,10%	80,00%	71,40%

Source: Self-Made

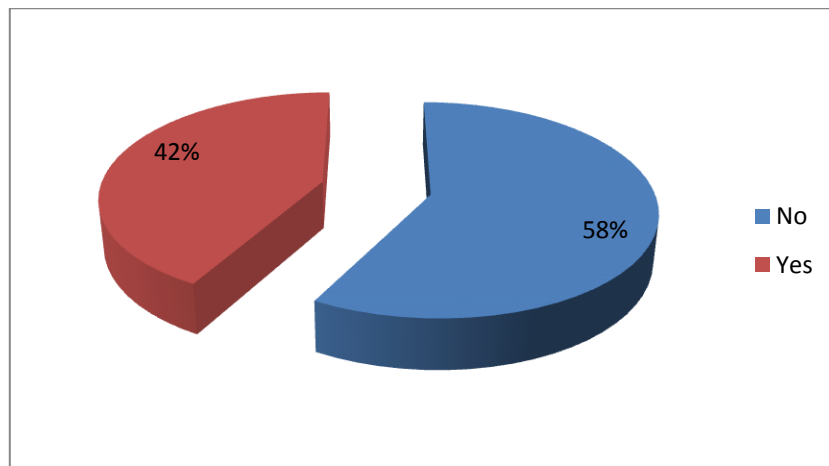
In this survey it's important to refer that all persons answer at least one of these possible answers and that these percentages are based on the answers that each person gave to the multiple choices.

Through this data we can prove the importance of social networks in crowdfunding. Social networks have a real importance.

### **5.2.6 Web 2.0 Concept**

One question that was raised was if the persons on the sample knew the concept of Web 2.0.

**Graph 7 – Do People Know the Concept of Web 2.0?**



Source: Self-Made

As can be seen in the graph, 58% of the persons were not familiar to the concept of Web 2.0 and only 42% were familiar with the concept. Although the majority said “No”, there isn’t a linear answer between ages, as it can be seen below (Table 7).

**Table 7 – Concept of Web 2.0 by Age**

Age		
< 21	No	70,00%
	Yes	30,00%
[ 21 - 25 [	No	53,80%
	Yes	46,20%
[ 25 - 30 [	No	70,00%
	Yes	30,00%
[ 30 - 40 [	No	51,90%
	Yes	48,10%
[ 40 - 50 [	No	47,20%
	Yes	52,80%
[ 50 - 60 [	No	44,40%
	Yes	55,60%
> 60	No	0,00%
	Yes	0,00%

Source: Self-Made

It’s important to notice from the ages <21 to 40 years most of the persons in the sample aren’t familiar with the concept of Web 2.0. However, ages superior to 40 years old, are familiar with the concept of Web 2.0 (Table 6).

It’s also important to refer that a vast majority of young cases aren’t familiar with Web 2.0, they have very high percentages of “No”, between 51.9% and 70% (Table 6).

If we crosstab the answers of this question with the question of which platforms, companies and sites do the persons know, we come up with interesting conclusions (Table 7).

**Table 8 –Crosstab between Platforms and knowing of Web 2.0**

	Facebook	Netscape	Akamai	Bitorrent	Wordpress	Blogspot	Britannica	Napster	Twitter	Youtube	Wikipedia	Doublecli	Google
No	58,10%	30,80%	16,70%	52,80%	39,30%	54,90%	50,00%	37,80%	58,20%	56,80%	57,60%	20,00%	20,00%
Yes	41,90%	69,20%	83,30%	47,20%	60,70%	45,10%	50,00%	62,20%	41,80%	43,20%	42,40%	80,00%	80,00%

**Source: Self-Made**

Within those who selected the option Netscape the vast majority of persons knew the concept of Web 2.0 (69.2%), the same happens with Akamai, Doubleclick, which have a 83% and 80% of percentage of “Yes” (Table 7) , respectively. It is interesting to see this because Netscape, Akamai, Doubleclick are before Web 2.0.

It can be concluded that the concept of Web 2.0 is better known by older people and they are more familiar with the “before and after” of this concept.

On the other hand, younger generations do not know the concept but they use the principles of Web 2.0., by using social networks (Facebook – 58.10%; Twitter - 58.2%), share on peer-to-peer (Bitorrent – 52.8%), blogging (Blogspot – 54.9%) and uploading videos (Youtube – 56.8%) (Table 7).

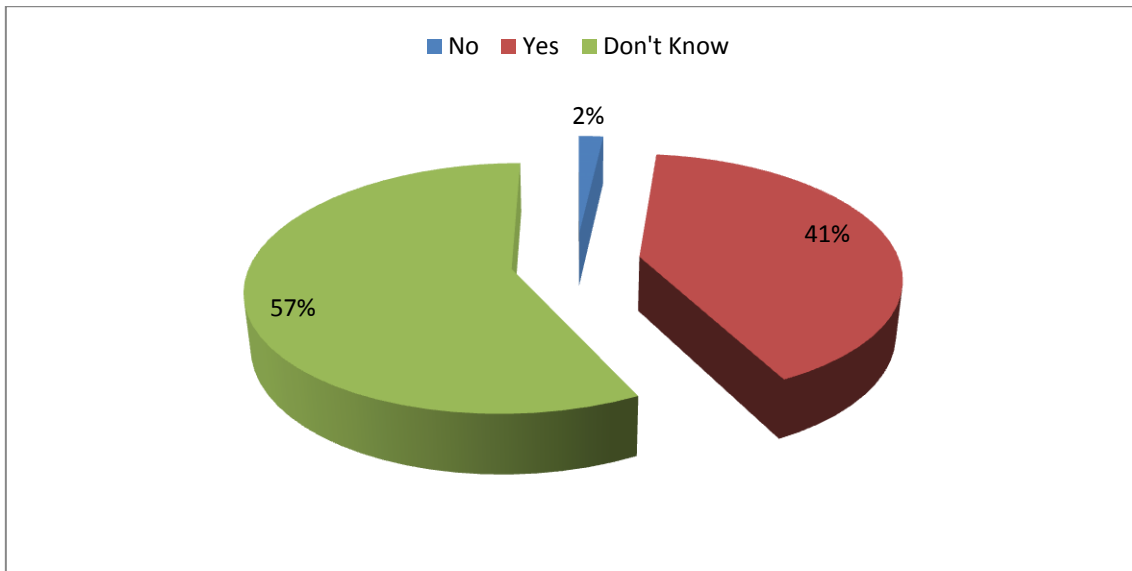
Finally it can be said that all generations know Web 2.0, either by using or by knowing the concepts and principles.

### 5.2.7 Advantages of WEB 2.0

Many marketeers, academics and authors argue that the understanding of Web 2.0 can bring advantages to persons and companies in a way that they can promote themselves and their products.

Based on this idea it was introduced in the survey the question: Do You believe in the competitive advantages of Web 2.0 for Companies and Persons?

**Graph 8 – Answer to the question: “Do You Believe in the competitive Advantages of Web 2.0 for Companies and Persons?”**



Source: Self-Made

The answers were surprisingly interesting. 57% “don’t know” the advantages of Web 2.0, 41% said “Yes” to “believe in the advantages” and only 2% said that they didn’t believe (Graph 8).

It's interesting the crosstab between these answers with the question: Is the Web 2.0 Concept Familiar to you?

**Table 9 – “Crosstab between the questions of the belief of competitive advantages and the knowing of the Concept of Web 2.0”**

It's The Web 2.0 concept Familiar to you?	<b>No</b>	Do you believe in the competitive advantages of Web 2.0 for Companies and Persons?	<b>No</b>	<b>0.6%</b>
			<b>Yes</b>	<b>5.30%</b>
			<b>Don't Know</b>	<b>52.10%</b>
	<b>Yes</b>	Do you believe in the competitive advantages of Web 2.0 for Companies and Persons?	<b>No</b>	<b>1.20%</b>
			<b>Yes</b>	<b>35.50%</b>
			<b>Don't Know</b>	<b>5.30%</b>

Source: Self-Made

The vast majority of persons who answer “No” to the question: It's the Web 2.0 Concept Familiar? – were the same persons who answered “Don't Know” (52.10%) (Table 8) to the question: “Do you believe in the competitive advantages of Web 2.0 for Companies and Persons?” Only 0.6% answered “No” to both questions and 5.30% answered “No” and “Yes” (Table 8), showing that the people don't know Web 2.0 and don't know its competitive advantages.

In other point of view the persons who know the concept of Web 2.0 recognize advantages for companies and persons. Persons who answered “Yes” to both questions where 35.50%, and Persons who answered “Yes” and “No” where 1.20% (Table 8), which is quite interesting because there is a larger number of cases who answered “Yes” and “No” than “No”

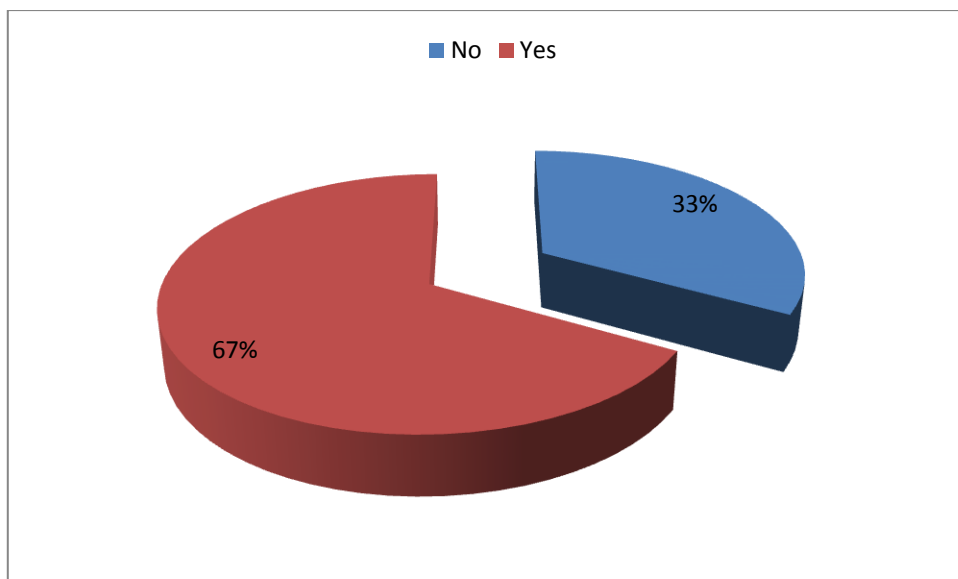
and “No” to both questions. Bottom end, persons who know the concept also recognize the advantages of the Web 2.0.

### 5.2.8 Veracity of Web 2.0

One question that is often raised is the veracity of the content created through Web 2.0 principles. Do persons trust the content created by others?

This question is quite important to the crowdfunding industry because there must be some trust between the entrepreneur and the funders. This other point of view is also important to notice if persons are vulnerable to frauds.

**Graph 9 –Answer to the question: “Do you believe on the veracity of contents and information created by others?”**



Source: Self-Made<sup>48</sup>

As can be seen the majority of the cases believe in the content created by others, 67% of the persons answered “Yes” to the question compared to the 33% who answered “No” (Graph 9).

**Table 10 - Crosstab between the relevance of a video in a crowdfunding campaign and the veracity of contents and information created by others**

In your Opinion, is relevant a crowdfunding campaign have a video?	<b>No</b>	Do you believe in the usefulness and in the veracity of contents and information created by others?	<b>No</b>	<b>6.30%</b>
			<b>Yes</b>	<b>6.30%</b>
	<b>Yes</b>	Do you believe in the usefulness and in the veracity of contents and information created by others?	<b>No</b>	<b>26.40%</b>
			<b>Yes</b>	<b>61%</b>

Source: Self-Made<sup>49</sup>

Only 159 persons answered to both questions. A very low percentage answered “No” to the relevance of having video on a crowdfunding campaign, being the same percentage (6.3%) (Table 9) to those who answered “Yes” and “No” to the “usefulness and in the veracity of contents and information created by others?”. More interesting are the cases who answered “Yes” to both questions, 61% agree with the importance of videos and believe in the

<sup>48</sup> Note: This is only the percentages of cases who answered to this question. 166 persons out of 169 answered to this question being 3 the missing cases

<sup>49</sup> Only 159 persons answered to both questions. The missing cases were 10.

“usefulness and in the veracity of contents and information created by others”. It’s also important to notice there is also a great percentage that agree with the importance of a video campaign but don’t agree with the information veracity of the contents created (26.40%) (Table 9).

It can be concluded through these both questions that people believe in the content created by others, especially through video. For an entrepreneur who wants to acquire funds using a crowdfunding campaign, the first thing to do is a video about the campaign. This data proves the importance of video in crowdfunding campaigns and that’s why many crowdfunding platforms advise entrepreneurs in creating a video promoting their campaign/projects.

In other point of view, videos can be used by fraudsters to create a fraud. People believe “in what they are seeing” and this can be worrying to the transparency of the crowdfunding industry. Information/contents created by video or social networks must be subject to a crowd due diligence (Agrawal, 2013). In the absence of this due diligence and in the presence of believing in the veracity of the contents there is an open door to a vast number of frauds.

It is also important to refer that all ages share the same opinion about the belief of the usefulness and veracity of contents created by others, as can be seen below (Table 10). All age groups answered “Yes” to the question being the percentages superior to 61% (>61.50%) (Table 10). It’s interesting to see that this isn’t a characteristic of one age but all ages, which makes conclude even more that all individuals believe in the contents created on the internet. One percentage quite interesting is the percentage of people between the ages of 30 and 40, in this percentage 74.10% of the persons answered “Yes” to the percentage, being the biggest percentage of the table (Table 10).

**Table 11 –Crosstab between Age and the question about the veracity of contents and information created by others**

< 21 years old	No	32,80%
	Yes	67,20%
	Total	100,00%
[ 21 and 25 [	No	38,50%
	Yes	61,50%
	Total	100,00%
[25 and 30 [	No	30,00%
	Yes	70,00%
	Total	100,00%
[30 and 40 [	No	25,90%
	Yes	74,10%
	Total	100,00%
[40 and 50 [	No	33,30%
	Yes	66,70%
	Total	100,00%
[ 50 and 60 [	No	37,50%
	Yes	62,50%
	Total	100,00%

Source: Self-Made

### 5.2.9 Sources of Finance

Being crowdfunding a source of finance it is important to know if the persons knew other sources of finance, such as: Venture Capital; Bank loans; Bonds; Government Grants; Leasing's; Family and Friends; and Share on Equity.

**Table 12 – Sources of Finance**

Bank Loan	92,30%
Family and Friends	73,40%
Government Grants	48,50%
Leasings	47,30%
Venture Capital	44,40%
Share on Equity	43,80%
Bonds	32,00%
None	3,60%
other	3,60%

**Source: Self-Made<sup>50</sup>**

Banks Loans is the most known source of finance known by the cases, 92.3% of the cases knew this source finance (Table 11). Surprisingly the second most known source of finance was Family and Friends, with 73.40% of the cases. The third place is occupied by Government Grants, which include state loans and subsidies, being 48.5% the percentage of cases who recognize the importance of this source of finance (Table 11). Another surprise in this survey is Leasings, with a percentage of 47.30% of the cases, a source of finance that is more known than Venture Capital (44.40%) and “Share on Equity” (43.80%) (Table 11) . Bonds have only a percentage of 32% and other forms of finance come with 3.6% (Table 11).

It is interesting to see that persons know better Debt forms of finance, such as Bank Loans and Leasings, which have very high percentages, compared to Equity forms of finance, such as Equity and Venture Capital. Through these results Equity is definitely not a usual form of financing and Bonds are not very well known.

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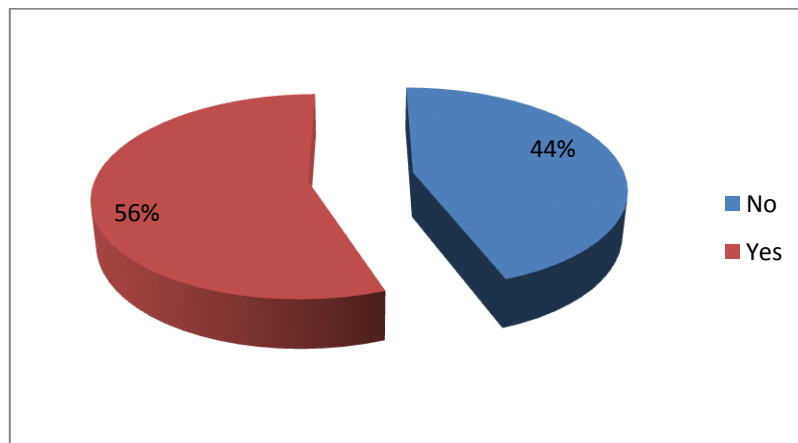
<sup>50</sup> 169 persons, the total of the sample answered to this question.

### 5.2.10 Crowdfunding

A new Source of Finance used by the entrepreneurs is crowdfunding but is this modern source known by the general public?

The Survey included the question: “Do you know what crowdfunding is?”. The results were quite interesting.

**Graph 10 – Answer to the question: “Do you know what crowdfunding is?”**



Source: Self-Made

More than half of the cases who answered to this question, answered “Yes” to the knowing of crowdfunding (56%), on the other hand, 44% (Graph 10) of the cases don’t know crowdfunding.

One question that has risen was, if the cases who knew crowdfunding were somehow correlated with other sources of finance.

**Table 13 – Table of Correlations between Sources of Finance and Crowdfunding**

		Do you know what crowdfunding is?
<b>Do you know what crowdfunding is?</b>	<b>Pearson Correlation</b>	<b>1</b>
	Sig. (2-tailed)	
Venture Capital (VC)	<b>Pearson Correlation</b>	0,151
	Sig. (2-tailed)	0,051
Bank Loan (BL)	<b>Pearson Correlation</b>	0,055
	Sig. (2-tailed)	0,477
Bonds (Bd)	<b>Pearson Correlation</b>	,178*
	Sig. (2-tailed)	0,021
Share on Equity (SE)	<b>Pearson Correlation</b>	,308**
	Sig. (2-tailed)	0
Government Grants (GG)	<b>Pearson Correlation</b>	,224**
	Sig. (2-tailed)	0,003
Family and Friends (FF)	<b>Pearson Correlation</b>	,243**
	Sig. (2-tailed)	0,001
Leasings (LS)	<b>Pearson Correlation</b>	,227**
	Sig. (2-tailed)	0,003
None	<b>Pearson Correlation</b>	-0,086
	Sig. (2-tailed)	0,266
Other	<b>Pearson Correlation</b>	0,107
	Sig. (2-tailed)	0,166

\* Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed).

**Source: Self-Made**

Through this table (Table 12) of correlation we can see that persons, who know crowdfunding, also know other sources of finance. Knowing (or not knowing) crowdfunding is positive related with other sources of finance, attesting that crowdfunding is viewed as not only a source of finance but also a complementary source of finance, meaning that persons who are familiar with complex forms of financing are also familiar with crowdfunding. This can be easily seen if we view the correlation significance of Bonds, Leasings, Government Grants and Equity (Table 12). Besides existing a correlation on these variables they are of statistical

significance and there is linear relationship between knowing (or not) the crowdfunding as source of finance and knowing other complex sources of finance. It's important to refer that it can be suspected a relationship between equity crowdfunding and Equity.

Besides of these suspicions one interesting variable is Family and Friends. Family and Friends are very important in crowdfunding because they usually are the first to fund projects. In this table (Table 12) of correlations Family and Friends has correlation significance below the level of 0.01, one of the lowest correlation significance (0.001). The significance of this correlation between those who know crowdfunding and Family and Friends as source of finance make this study suspect the vast importance that this form of finance can have on crowdfunding.

Another interesting factor about this question is that crowdfunding is better known by males than by females, as it can be seen in the table below (Table 13).

**Table 14 – Knowing of Crowdfunding by Sex**

Do you Know what Crowdfunding is?	Female	Male
No	54,30%	32,50%
Yes	45,70%	67,50%

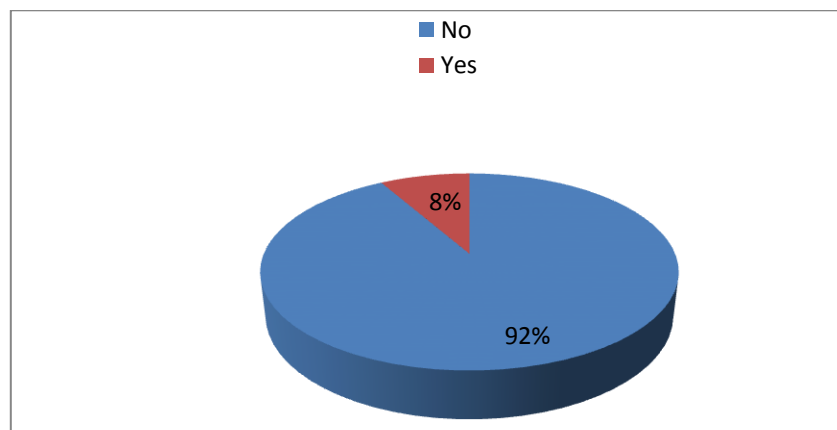
**Source: Self-Made**

We can see that crowdfunding is better known by men than by women, 54.30% (Table 13) of the women answered "No" to the question and men answered 67.5% (Table 13) answered "Yes". Through this data we can conclude that crowdfunding is better known by men than by women by a huge difference.

### 5.2.11 Contributions to Crowdfunding Projects

It's also important to study if persons on this sample contributed to a crowdfunding campaign. Taking this in consideration a question was made: "Have you contributed for a crowdfunding project?"

Graph 11 – Answer to the Question: "Have you ever contributed for crowdfunding project?"

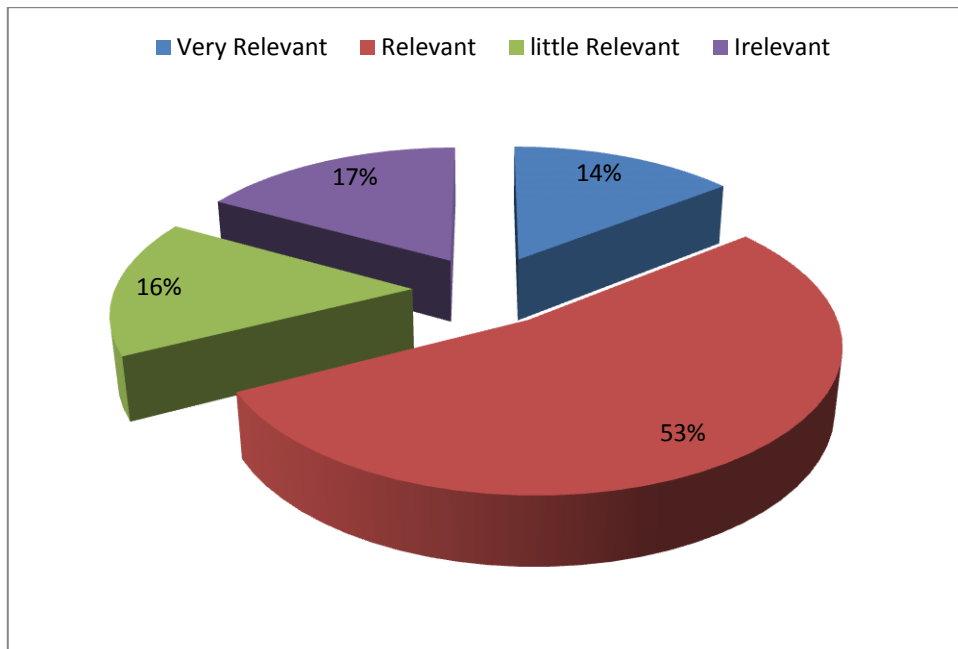


Source: Self-Made

Although 56% of the case said "Yes" to the Question "Do you know what crowdfunding is?", only 8% of the cases said that they have contributed for a crowdfunding project (Graph 11). 92% of the persons never contributed to a crowdfunding project.

Considering this fact a question was made to try to understand if persons know the importance of small funding for a crowdfunding campaign: "if you wanted to make a contribution to a crowdfunding campaign, do you believe that would be relevant to the success?"

Graph 12 – Relevance of Crowdfunding Contributions



Source: Self-Made <sup>51</sup>

Additionally to this fact it is interesting to see that, although persons do not fund/contribute to crowdfunding campaigns, they consider that the funding is important to the success of a campaign.

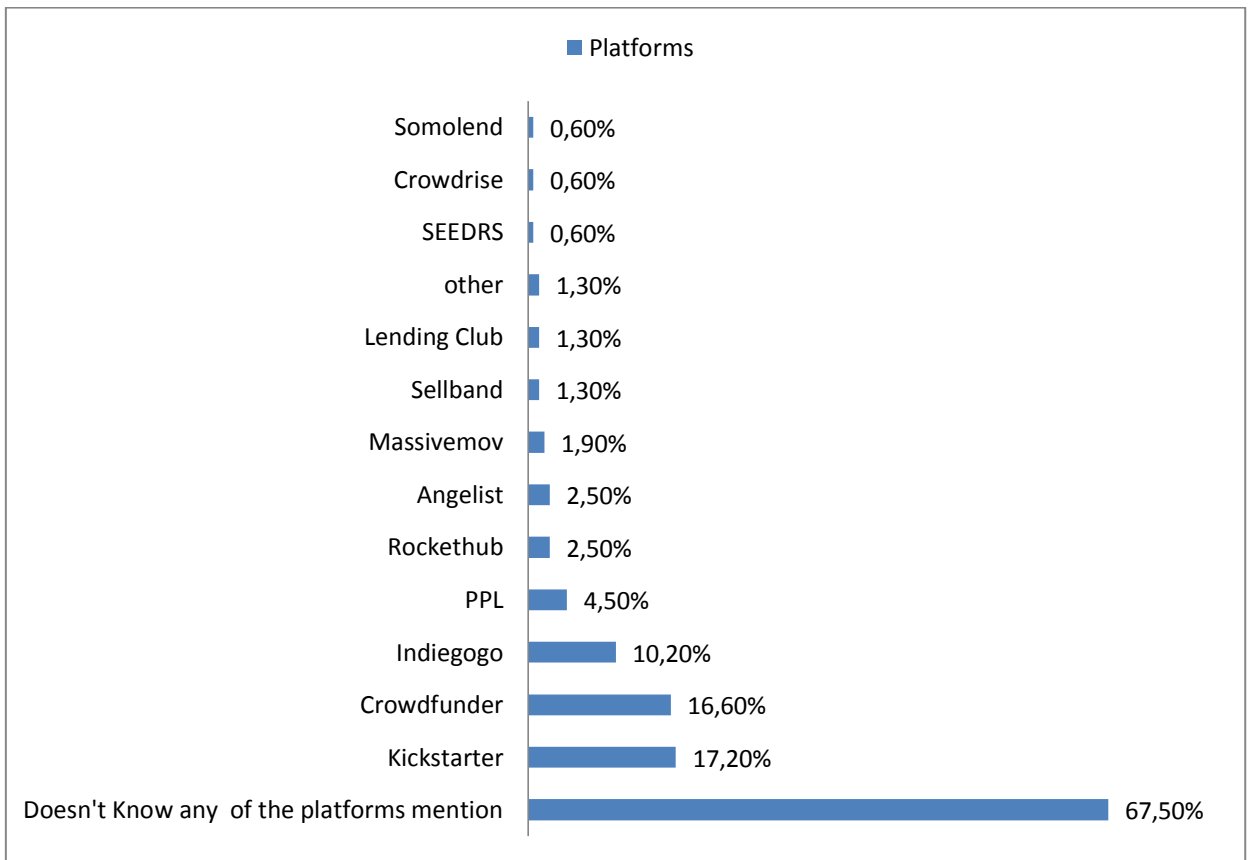
As can be seen in Graph 12, a vast number of persons consider that crowdfunding contributions are “relevant” (53%) to the success of a campaign. 14% consider it “very relevant” and 16% “little relevant”. Only 17% consider “irrelevant” a crowdfunding contribution.

<sup>51</sup> Only 160 answered to this question being the missing cases 9.

### 5.2.12 Crowdfunding platforms

It was also important to see what platforms persons knew on the crowdfunding industry.

Graph 13 - Platforms



Source: Self-Made

Although 56% of the cases answered “Yes” to the question “Do you know what crowdfunding is?” 67.5% of the cases answered “Doesn’t know any of the platforms mentioned” (Graph 13), in other words the major number of cases don’t know the platforms.

Kickstarter, the leading platform in the industry, is without doubt the most known platform with 17.20% of the cases knowing this platform. Indiegogo a “follower” of Kickstarter, only comes in third place, with 10.20%, being the second Crowdfunder platform, with 16.60% (Graph 13).

PPL, a Portuguese platform comes on fourth place, with 4.5%. PPL is surely the most well-known Portuguese platform compared with Massivemov (a Portuguese platform, also), with only 1.90% (Graph 13).

Angelist is the most known equity platform, with 2.5%, compared to other equity platform, Seedrs, which only has 0.6% (Graph 13). Seedrs platform is a UK based platform but one of its founders is Portuguese. It’s interesting to see that this platform isn’t very well known in Portugal, or at least in this universe, in spite of having a Portuguese founder.

Lending platforms are the least known. Lending Club is the most known with 1.30% followed by Somolend with only 0.6%.

In conclusion, Crowdfunding platforms are not very well known among these cases. Although crowdfunding platforms are not very famous, it can be seen through this sample that Kickstarter is already recognized as the leading platform of the market and PPL is the most famous platform on the Portuguese market.

## **CONCLUSIONS**

Crowdfunding is in the middle of a revolution (see figure 7). Many things are happening at the same time and that makes crowdfunding totally unpredictable. It's difficult to say how crowdfunding will look like in ten years, yet a set of transformations are taking place.

Crowdfunding, as a source of finance, helps the entrepreneur achieve one of the most important things of an entrepreneurial project, how to fund a project. Crowdfunding can be a great way to finance a project but there is a need from the entrepreneur to understand how crowdfunding works.

This Master Project shows the importance of Web 2.0 in crowdfunding. The importance of creation of content is the base of a crowdfunding campaign/project, without this creation of content a campaign and the entrepreneur behind it is doomed to fail. This study showed that some ways of creation of content can help the entrepreneur and funders establish a way of communication between them.

### **Conclusions of Case study 1**

One great example of this communication is comments. Case study 1 showed the importance of comments in gathering funding for a campaign project. Comments, besides helping collect funds for the campaign, are also a valuable source of information and a way of communication between the entrepreneur and funders.

These "Comments conversations" create trust around the campaign and it is an open source of information so the crowd can do a due diligence of the campaign. This helps the funders make the decision of funding or not funding and attracts new funders and funds for the campaign. In a way, comments are a way of signaling the quality of the campaigns and comments do so by being a feedback system between the entrepreneur and the Funders.

It's important to refer also that there is a great correlation (Table 4) between the funds gathered and comments. It can be said that the funders and entrepreneur communicate through comments and that the funders observe the content created by the entrepreneur.

Social networks aren't important as suspected initially. The Model created in this Master Project showed that having a Facebook page associated and having a lot of Facebook friends are not relevant for the gathering of funds (Table 3).

Another variable that isn't important as suspected is Updates. Updates in this Model don't have significance at all (Table 3), this shows that the creation of content (images and text) done by the entrepreneur doesn't help in the gathering of new funds. This contradicts the importance of blogging in crowdfunding, or at least the importance of giving new updates to the campaign. Sometimes updates aren't relevant for the crowdfunding campaign/project, in some way they are useless especially if the entrepreneur doesn't listen to the demands of the Funders. One great example was Pebble, the entrepreneur read the comments made by the Funders recommending new features for Pebble, after reading the comments the entrepreneur made an update adding these new features to the product. Although this model shows that updates aren't important, it cannot be concluded that updating information about the project isn't important, this depends in how the entrepreneur establishes a communication, listens to the demands of the Funders and the quality of the information given in updates. Somehow quality of the updates is more important than the quantity of the updates.

Videos are also an important variable. All campaigns have a video associated, being this creation of content a very good source of information for the funders who fund this project. Case Study 2 sample also showed that people value video presentations and Kickstarter recommends that all campaigns should have a video presentation. Usually videos are the first contact that the funders have with the campaign and the impact of videos should be studied more deeply.

The Case Study 1 showed the importance of some "Web 2.0 tools" in crowdfunding. This "Web 2.0 tools", such as comments, creates a communication, establishes a relationship, and creates trust between the entrepreneur and the funders. The knowing in the usage of this "Web 2.0 tools" can help the entrepreneur gather funds for his campaign.

## **Conclusions of Case study 2**

Crowdfunding is making the first steps in Portugal, only 8% have contributed to a crowdfunding campaign (Graph 11) and only 5% have commented in a crowdfunding page (Graph 4). The lack of commenting on crowdfunding shows that persons are unaware of the importance of Web 2.0 in crowdfunding and are also unaware of the Web 2.0 concept, 57% of the people don't know the Web 2.0 concept (Graph 7). The lack of awareness of the concept doesn't mean that persons don't create content or recognize Web 2.0 platforms, Graph 3 showed that persons create content and graph 6 showed that persons recognize Web 2.0 platforms. In other words, Persons don't know the concept yet they use daily.

Case study 2 showed also the importance of the creation of content through Videos. Videos are very important for a crowdfunding campaign, 88% (Graph 5) of the persons considered that having a video was important. Videos definitely are a valuable source of information for the Funders but this source of information can be questionable. This questionable information leads to the veracity of the content persons (at least in this sample) tend to believe the content information created by others (Graph 9). This can be very harmful for crowdfunding because it opens the door to fraudsters, for example, people tend to believe in what they see in a video (Table 9).

Besides other sources finance (Table 1) 56% of the persons also knew crowdfunding (Graph 10). Another fact is that can be suspected a relationship between crowdfunding and other sources of finance, specifically "family and friends" and equity (Table 12). It can be suspected that those who know equity also know equity crowdfunding, but it's very doubtful that those who do use these forms of crowdfunding. Once again, the importance of family and friends in crowdfunding is proven and can be suspected the vast importance that this form of finance has on crowdfunding.

Another important fact that has been referred to is that only 8% have contributed to a crowdfunding campaign (Graph 11), yet and besides this low value, 53% of the persons who answered to this question, considered their funding relevant (Graph 12) to the success of the campaign/project. This is quite intriguing, persons recognize the importance of their act of funding in crowdfunding but they don't fund. It can be said there is somehow a barrier that stops persons from doing so.

This survey was conducted in Portugal, however the most known platform is Kickstarter, an American platform, with 17.2% of the persons who answered knowing this platform (graph 13). This is quite normal since Kickstarter is the leader of the crowdfunding industry. PPL is the Portuguese market leader and it is the most famous Portuguese platform with 4.5% (graph 13) of the persons knowing this platform. It's interesting to notice that Angelist is the most famous equity platform with 2.5% (graph 13) of the persons knowing this platform. Finally, it's important to refer that 67.5% (graph 13) of the persons who answered didn't know any of these platforms mentioned, which is intriguing because 56% (table 1) of the persons who answered to the question said that they knew crowdfunding.

## **Final Conclusions**

This study established a relationship between the creations of the content inside internet crowdfunding platforms and how this relationship impacted the funds collected. This creation of content is the base of a crowdfunding campaign/project, and if the entrepreneur wants to succeed in a crowdfunding campaign he has to know how to use the ways of communication that Web 2.0 offers.

Portugal is still light years from a developed crowdfunding industry however there is a great space for the development of this industry and people are ready to adhere to this new source of finance if some barriers are broken.

To end this study it's important to refer that in the future, a revolution in crowdfunding will take place (or is already taking place) and the impact of crowdfunding in entrepreneurship will be very large. It will be difficult to predict what will happen in this industry but for certain the impact of crowdfunding in society will grow and the externalities that it will create are still unpredictable.

## **Future Research**

This study opened many questions. One question is the impact of the quality of updates made by the entrepreneur and their impact on funding. This study couldn't ascertain for sure if the information given on updates had impact or not in funding, the Model only studied the quantity of the updates and showed that the quantity of updates didn't have any significance. Further studies should be conducted to ascertain if the quality of the updates had impact in crowdfunding campaigns.

Related with the updates is the quality of the information given to the funders by the entrepreneur. Good or bad information can have a great impact or a bad impact in the funding of a campaign/project. This good or bad information variable is unclear in crowdfunding.

In this study, social networks weren't found important for a crowdfunding campaign, contradicting the common idea that having a lot of friends in a social network impacts a crowdfunding campaign. However, there are other ways beyond the network of friends (in a social network) of the entrepreneurs. One great example that needs studying is the impact of advertising of a campaign in a social network.

Finally, this showed that there are some barriers in Portugal that stop persons from funding a crowdfunding campaign. It's important to find out what these barriers to funding are.

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## Appendix

### Appendix 1 - List of Campaigns used on case study 1

	Name of the Campaign	Kickstarter page
1	Pono Music - Where Your Soul Rediscovered Music	<a href="https://www.kickstarter.com/projects/1003614822/ponomusic-where-your-soul-rediscovered-music?ref=nav_search">https://www.kickstarter.com/projects/1003614822/ponomusic-where-your-soul-rediscovered-music?ref=nav_search</a>
2	The Micro: The First Truly Consumer 3D Printer	<a href="https://www.kickstarter.com/projects/m3d/the-micro-the-first-truly-consumer-3d-printer?ref=discovery">https://www.kickstarter.com/projects/m3d/the-micro-the-first-truly-consumer-3d-printer?ref=discovery</a>
3	FORM 1: An affordable, professional 3D printer	<a href="https://www.kickstarter.com/projects/formlabs/form-1-an-affordable-professional-3d-printer?ref=discovery">https://www.kickstarter.com/projects/formlabs/form-1-an-affordable-professional-3d-printer?ref=discovery</a>
4	3Doodler: The World's First 3D Printing Pen	<a href="https://www.kickstarter.com/projects/1351910088/3doodler-the-worlds-first-3d-printing-pen?ref=nav_search">https://www.kickstarter.com/projects/1351910088/3doodler-the-worlds-first-3d-printing-pen?ref=nav_search</a>
5	Glyph: A Mobile Personal Theater With Built In Premium Audio	<a href="https://www.kickstarter.com/projects/avegantglyph/a-mobile-personal-theater-with-built-in-premium-audio?ref=discovery">https://www.kickstarter.com/projects/avegantglyph/a-mobile-personal-theater-with-built-in-premium-audio?ref=discovery</a>
6	ARKYD: A Space Telescope for Everyone	<a href="https://www.kickstarter.com/projects/arkydforeveryone/arkyd-a-space-telescope-for-everyone-0?ref=nav_search">https://www.kickstarter.com/projects/arkydforeveryone/arkyd-a-space-telescope-for-everyone-0?ref=nav_search</a>
7	Structure Sensor: Capture the World in 3D	<a href="https://www.kickstarter.com/projects/occipital/structure-sensor-capture-the-world-in-3d?ref=nav_search">https://www.kickstarter.com/projects/occipital/structure-sensor-capture-the-world-in-3d?ref=nav_search</a>
8	castAR: the most versatile AR & VR system	<a href="https://www.kickstarter.com/projects/technicalillusions/castar-the-most-versatile-ar-and-vr-system?ref=nav_search">https://www.kickstarter.com/projects/technicalillusions/castar-the-most-versatile-ar-and-vr-system?ref=nav_search</a>
9	Parallella: A Supercomputer For Everyone	<a href="https://www.kickstarter.com/projects/adapteva/parallella-a-supercomputer-for-everyone?ref=discovery">https://www.kickstarter.com/projects/adapteva/parallella-a-supercomputer-for-everyone?ref=discovery</a>
10	Printrbot: Your First 3D Printer	<a href="https://www.kickstarter.com/projects/printrbot/printrbot-your-first-3d-printer?ref=discovery">https://www.kickstarter.com/projects/printrbot/printrbot-your-first-3d-printer?ref=discovery</a>
11	Pegasus Touch Laser SLA 3D Printer: Low cost, High Quality	<a href="https://www.kickstarter.com/projects/fsl/pegasus-touch-laser-sla-3d-printer-low-cost-high-q?ref=nav_search">https://www.kickstarter.com/projects/fsl/pegasus-touch-laser-sla-3d-printer-low-cost-high-q?ref=nav_search</a>

12	Next Generation LiveCode (Open Source)	<a href="https://www.kickstarter.com/projects/1755283828/open-source-edition-of-livecode?ref=discovery">https://www.kickstarter.com/projects/1755283828/open-source-edition-of-livecode?ref=discovery</a>
13	World's first roast-grind-brew coffee machine	<a href="https://www.kickstarter.com/projects/jimguldi/worlds-first-roast-grind-brew-coffee-machine?ref=nav_search">https://www.kickstarter.com/projects/jimguldi/worlds-first-roast-grind-brew-coffee-machine?ref=nav_search</a>
14	Circuit Scribe: Draw Circuits Instantly	<a href="https://www.kickstarter.com/projects/electroninks/circuit-scribe-draw-circuits-instantly?ref=discovery">https://www.kickstarter.com/projects/electroninks/circuit-scribe-draw-circuits-instantly?ref=discovery</a>
15	UDOO: Android Linux Arduino in a tiny single-board computer	<a href="https://www.kickstarter.com/projects/udoo/udoo-android-linux-arduino-in-a-tiny-single-board?ref=discovery">https://www.kickstarter.com/projects/udoo/udoo-android-linux-arduino-in-a-tiny-single-board?ref=discovery</a>
16	NINJA SPHERE: Next Generation Control of Your Environment	<a href="https://www.kickstarter.com/projects/ninja/ninja-sphere-next-generation-control-of-your-envir?ref=discovery">https://www.kickstarter.com/projects/ninja/ninja-sphere-next-generation-control-of-your-envir?ref=discovery</a>
17	pixelstick - Light painting evolved.	<a href="https://www.kickstarter.com/projects/bitbangerlabs/pixelstick-light-painting-evolved?ref=nav_search">https://www.kickstarter.com/projects/bitbangerlabs/pixelstick-light-painting-evolved?ref=nav_search</a>
18	Smart Herb Garden by Click & Grow	<a href="https://www.kickstarter.com/projects/mattiaslepp/smart-herb-garden-by-click-and-grow?ref=nav_search">https://www.kickstarter.com/projects/mattiaslepp/smart-herb-garden-by-click-and-grow?ref=nav_search</a>
19	HackRF, an open source SDR platform	<a href="https://www.kickstarter.com/projects/mossmann/hackrf-an-open-source-sdr-platform?ref=nav_search">https://www.kickstarter.com/projects/mossmann/hackrf-an-open-source-sdr-platform?ref=nav_search</a>
20	MaKey MaKey: An Invention Kit for Everyone	<a href="https://www.kickstarter.com/projects/joylabs/makey-makey-an-invention-kit-for-everyone?ref=nav_search">https://www.kickstarter.com/projects/joylabs/makey-makey-an-invention-kit-for-everyone?ref=nav_search</a>
21	Spark Core: Wi-Fi for Everything (Arduino Compatible)	<a href="https://www.kickstarter.com/projects/sparkdevices/spark-core-wi-fi-for-everything-arduino-compatible?ref=nav_search">https://www.kickstarter.com/projects/sparkdevices/spark-core-wi-fi-for-everything-arduino-compatible?ref=nav_search</a>
22	Twine : Listen to your world, talk to the Internet	<a href="https://www.kickstarter.com/projects/supermechanical/twine-listen-to-your-world-talk-to-the-internet?ref=nav_search">https://www.kickstarter.com/projects/supermechanical/twine-listen-to-your-world-talk-to-the-internet?ref=nav_search</a>
23	B9Creator - A High Resolution 3D Printer	<a href="https://www.kickstarter.com/projects/b9creations/b9creator-a-high-resolution-3d-printer?ref=nav_search">https://www.kickstarter.com/projects/b9creations/b9creator-a-high-resolution-3d-printer?ref=nav_search</a>
24	The Mini Mobile Robotic Printer	<a href="https://www.kickstarter.com/projects/1686304142/the-mini-mobile-robotic-printer">https://www.kickstarter.com/projects/1686304142/the-mini-mobile-robotic-printer</a>
25	Triggertrap Ada: Modular Camera Trigger	<a href="https://www.kickstarter.com/projects/triggertrap/triggertrap-redsnap-modular-camera-trigger">https://www.kickstarter.com/projects/triggertrap/triggertrap-redsnap-modular-camera-trigger</a>
26	Robox : Desktop 3D	<a href="https://www.kickstarter.com/projects/robox/robox-desktop-3d">https://www.kickstarter.com/projects/robox/robox-desktop-3d</a>

	Printer and Micro-Manufacturing Platform	3d-printer-and-micro-manufacturing-p
27	HEATWORKS MODEL 1: Your next water heater!	<a href="https://www.kickstarter.com/projects/1132758406/heatworks-model-1-your-next-water-heater">https://www.kickstarter.com/projects/1132758406/heatworks-model-1-your-next-water-heater</a>
28	MOSS - The Dynamic Robot Construction Kit	<a href="https://www.kickstarter.com/projects/modrobotics/moss-the-dynamic-robot-construction-kit">https://www.kickstarter.com/projects/modrobotics/moss-the-dynamic-robot-construction-kit</a>
29	Handibot™: A Smart Digital Power Tool	<a href="https://www.kickstarter.com/projects/1320575205/handibot-m-a-smart-digital-power-tool">https://www.kickstarter.com/projects/1320575205/handibot-m-a-smart-digital-power-tool</a>
30	Fuel3D: A handheld 3D scanner for less than \$1000	<a href="https://www.kickstarter.com/projects/45699157/fuel3d-a-handheld-3d-scanner-for-less-than-1000">https://www.kickstarter.com/projects/45699157/fuel3d-a-handheld-3d-scanner-for-less-than-1000</a>
31	SmartScope - Reinventing the oscilloscope	<a href="https://www.kickstarter.com/projects/751733865/smartscope-reinventing-the-oscilloscope">https://www.kickstarter.com/projects/751733865/smartscope-reinventing-the-oscilloscope</a>
32	Light Table	<a href="https://www.kickstarter.com/projects/ibdnox/light-table">https://www.kickstarter.com/projects/ibdnox/light-table</a>
33	Gramofon: Modern Cloud Jukebox	<a href="https://www.kickstarter.com/projects/fon/gramofon-modern-cloud-jukebox">https://www.kickstarter.com/projects/fon/gramofon-modern-cloud-jukebox</a>
34	The BIG Turtle Shell®: Rugged, Wireless BoomBox & Power Bank	<a href="https://www.kickstarter.com/projects/krisman/the-big-turtle-shell-rugged-wireless-boombox-and-p">https://www.kickstarter.com/projects/krisman/the-big-turtle-shell-rugged-wireless-boombox-and-p</a>
35	Digispark - The tiny, Arduino enabled, usb dev board!	<a href="https://www.kickstarter.com/projects/digistump/digispark-the-tiny-arduino-enabled-usb-dev-board">https://www.kickstarter.com/projects/digistump/digispark-the-tiny-arduino-enabled-usb-dev-board</a>
36	The Othermill: Custom Circuits at Your Fingertips	<a href="https://www.kickstarter.com/projects/otherfab/the-othermill-custom-circuits-at-your-fingertips">https://www.kickstarter.com/projects/otherfab/the-othermill-custom-circuits-at-your-fingertips</a>
37	Ghost: Just a Blogging Platform	<a href="https://www.kickstarter.com/projects/johnonolan/ghost-just-a-blogging-platform">https://www.kickstarter.com/projects/johnonolan/ghost-just-a-blogging-platform</a>
38	Macaw: The Code-Savvy Web Design Tool	<a href="https://www.kickstarter.com/projects/macaw/macaw-the-code-savvy-web-design-tool">https://www.kickstarter.com/projects/macaw/macaw-the-code-savvy-web-design-tool</a>
39	Print on Fabric Using Sunlight: The Lumi Process	<a href="https://www.kickstarter.com/projects/lumi/print-on-fabric-using-sunlight-the-lumi-process">https://www.kickstarter.com/projects/lumi/print-on-fabric-using-sunlight-the-lumi-process</a>
40	Kossel Clear - Let's build	<a href="https://www.kickstarter.com/projects/blueeaglelabs/kossel-clear-lets-build">https://www.kickstarter.com/projects/blueeaglelabs/kossel-clear-lets-build</a>

	a full sized delta 3D printer!	clear-lets-build-a-full-sized-delta-3d-prin
41	HexBright, an Open Source Light	<a href="https://www.kickstarter.com/projects/527051507/hexbright-an-open-source-light">https://www.kickstarter.com/projects/527051507/hexbright-an-open-source-light</a>
42	Red Pitaya: Open instruments for everyone	<a href="https://www.kickstarter.com/projects/652945597/red-pitaya-open-instruments-for-everyone">https://www.kickstarter.com/projects/652945597/red-pitaya-open-instruments-for-everyone</a>
43	Gigabot 3D Printing: This is Huge!	<a href="https://www.kickstarter.com/projects/re3d/gigabot-3d-printing-this-is-huge">https://www.kickstarter.com/projects/re3d/gigabot-3d-printing-this-is-huge</a>
44	Aurora: The Dream-Enhancing Headband	<a href="https://www.kickstarter.com/projects/iwinks/the-aurora-dream-enhancing-headband/">https://www.kickstarter.com/projects/iwinks/the-aurora-dream-enhancing-headband/</a>
45	King's Assembly - A Computer Mouse Full Of Awesome	<a href="https://www.kickstarter.com/projects/70308014/kings-assembly-a-computer-mouse-full-of-awesome/">https://www.kickstarter.com/projects/70308014/kings-assembly-a-computer-mouse-full-of-awesome/</a>
46	ROCKI Wifi Music System, From Every Phone, To All Speakers	<a href="https://www.kickstarter.com/projects/rocki/rocki-wifi-music-system-from-every-phone-to-all-sp">https://www.kickstarter.com/projects/rocki/rocki-wifi-music-system-from-every-phone-to-all-sp</a>
47	Monkey Light Pro - Bicycle Wheel Display System	<a href="https://www.kickstarter.com/projects/minimonkey/monkey-light-pro-bicycle-wheel-display-system">https://www.kickstarter.com/projects/minimonkey/monkey-light-pro-bicycle-wheel-display-system</a>
48	revolights. join the revolution	<a href="https://www.kickstarter.com/projects/revolights/revolights-join-the-revolution">https://www.kickstarter.com/projects/revolights/revolights-join-the-revolution</a>
49	OpenBCI: An Open Source Brain-Computer Interface For Makers	<a href="https://www.kickstarter.com/projects/openbci/openbci-an-open-source-brain-computer-interface-fo">https://www.kickstarter.com/projects/openbci/openbci-an-open-source-brain-computer-interface-fo</a>
50	Lavabit's Dark Mail Initiative	<a href="https://www.kickstarter.com/projects/ladar/lavabits-dark-mail-initiative">https://www.kickstarter.com/projects/ladar/lavabits-dark-mail-initiative</a>
51	Filastruder: A robust, inexpensive filament extruder.	<a href="https://www.kickstarter.com/projects/833191773/filastruder-a-robust-inexpensive-filament-extruder/comments">https://www.kickstarter.com/projects/833191773/filastruder-a-robust-inexpensive-filament-extruder/comments</a>
52	Spike : Laser accurate measurement & modeling on smartphones	<a href="https://www.kickstarter.com/projects/ikegps/spike-laser-accurate-measurement-and-modelling-on">https://www.kickstarter.com/projects/ikegps/spike-laser-accurate-measurement-and-modelling-on</a>

53	AURISONICS // ROCKETTS: Next gen IEMs Made in USA	<a href="https://www.kickstarter.com/projects/1285259404/aurisonics-rockets-next-gen-iems-made-in-usa/">https://www.kickstarter.com/projects/1285259404/aurisonics-rockets-next-gen-iems-made-in-usa/</a>
54	XY - The secure iOS/Android Bluetooth tracking tag	<a href="https://www.kickstarter.com/projects/xyfindit/xy-the-secure-tracking-tag">https://www.kickstarter.com/projects/xyfindit/xy-the-secure-tracking-tag</a>
55	Decentralize the web with Diaspora	<a href="https://www.kickstarter.com/projects/mbs348/diaspora-the-personally-controlled-do-it-all-distr">https://www.kickstarter.com/projects/mbs348/diaspora-the-personally-controlled-do-it-all-distr</a>
56	Touch Board: Interactivity Everywhere	<a href="https://www.kickstarter.com/projects/863853574/touch-board-interactivity-everywhere/">https://www.kickstarter.com/projects/863853574/touch-board-interactivity-everywhere/</a>
57	Bartendro - A Cocktail Dispensing Robot	<a href="https://www.kickstarter.com/projects/partyrobotics/bartendro-a-cocktail-dispensing-robot">https://www.kickstarter.com/projects/partyrobotics/bartendro-a-cocktail-dispensing-robot</a>
58	Sparki - The Easy Robot for Everyone!	<a href="https://www.kickstarter.com/projects/arcbotics/sparki-the-easy-robot-for-everyone/">https://www.kickstarter.com/projects/arcbotics/sparki-the-easy-robot-for-everyone/</a>
59	Brewbot: The Smart Brewing Appliance	<a href="https://www.kickstarter.com/projects/cargo/brewbot-the-smart-brewing-appliance/">https://www.kickstarter.com/projects/cargo/brewbot-the-smart-brewing-appliance/</a>
60	ATOMS Express Toys	<a href="https://www.kickstarter.com/projects/atoms/atoms-express-toys">https://www.kickstarter.com/projects/atoms/atoms-express-toys</a>
61	DIWire: The First Desktop Wire Bender	<a href="https://www.kickstarter.com/projects/1638882643/diwire-the-first-desktop-wire-bender">https://www.kickstarter.com/projects/1638882643/diwire-the-first-desktop-wire-bender</a>
62	XOXO Festival	<a href="https://www.kickstarter.com/projects/waxpancake/xoxo-festival">https://www.kickstarter.com/projects/waxpancake/xoxo-festival</a>
63	BRCK - your backup generator for the internet	<a href="https://www.kickstarter.com/projects/1776324009/brck-your-backup-generator-for-the-internet">https://www.kickstarter.com/projects/1776324009/brck-your-backup-generator-for-the-internet</a>
64	SHRU - The intelligent cat companion	<a href="https://www.kickstarter.com/projects/1046165765/egg-the-intelligent-cat-companion">https://www.kickstarter.com/projects/1046165765/egg-the-intelligent-cat-companion</a>
65	Transparent Speaker	<a href="https://www.kickstarter.com/projects/peopleproducts/transparent-speaker-1">https://www.kickstarter.com/projects/peopleproducts/transparent-speaker-1</a>
66	GoPano micro - Capture 360° videos from an iPhone 4	<a href="https://www.kickstarter.com/projects/1106196796/the-gopano-micro-a-lens-for-capturing-360-video-on">https://www.kickstarter.com/projects/1106196796/the-gopano-micro-a-lens-for-capturing-360-video-on</a>
67	oneTesla: a DIY Singing Tesla Coil	<a href="https://www.kickstarter.com/projects/onetesla/onetesla-a-diy-singing-tesla-coil">https://www.kickstarter.com/projects/onetesla/onetesla-a-diy-singing-tesla-coil</a>

68	Hexy the Hexapod - Low-Cost Six-Legged Open Robot	<a href="https://www.kickstarter.com/projects/arcbotics/hexy-the-hexapod-low-cost-six-legged-open-robot?ref=discovery">https://www.kickstarter.com/projects/arcbotics/hexy-the-hexapod-low-cost-six-legged-open-robot?ref=discovery</a>
69	Bukobot 3D Printer - Affordable 3D with No Compromises!	<a href="https://www.kickstarter.com/projects/deezmaker/buko-3d-printer-raising-the-bar-of-open-source-3d">https://www.kickstarter.com/projects/deezmaker/buko-3d-printer-raising-the-bar-of-open-source-3d</a>
70	Timelapse+ : powerful features, brilliant timelapse	<a href="https://www.kickstarter.com/projects/elijahparker/timelapse-powerful-features-brilliant-timelapse">https://www.kickstarter.com/projects/elijahparker/timelapse-powerful-features-brilliant-timelapse</a>
71	Jumpshot: A New Weapon to Battle PC Frustration	<a href="https://www.kickstarter.com/projects/thejumpshot/jumpshot-a-new-weapon-to-battle-pc-frustration">https://www.kickstarter.com/projects/thejumpshot/jumpshot-a-new-weapon-to-battle-pc-frustration</a>
72	Espruino: JavaScript for Things	<a href="https://www.kickstarter.com/projects/gfw/espruino-javascript-for-things">https://www.kickstarter.com/projects/gfw/espruino-javascript-for-things</a>
73	Micro Python: Python for microcontrollers	<a href="https://www.kickstarter.com/projects/214379695/micro-python-python-for-microcontrollers">https://www.kickstarter.com/projects/214379695/micro-python-python-for-microcontrollers</a>
74	Mogeegs - Play the World	<a href="https://www.kickstarter.com/projects/mogeegs/mogeegs-play-the-world">https://www.kickstarter.com/projects/mogeegs/mogeegs-play-the-world</a>
75	The MicroSlice   A Mini Arduino Laser Cutter & Engraver.	<a href="https://www.kickstarter.com/projects/1008225922/the-microslice-a-mini-arduino-laser-cutter-and-eng/">https://www.kickstarter.com/projects/1008225922/the-microslice-a-mini-arduino-laser-cutter-and-eng/</a>
76	Game Frame: The Art of Pixels	<a href="https://www.kickstarter.com/projects/jerware/game-frame-the-art-of-pixels">https://www.kickstarter.com/projects/jerware/game-frame-the-art-of-pixels</a>
77	Ramos alarm clock	<a href="https://www.kickstarter.com/projects/2074185253/ramos-alarm-clock/">https://www.kickstarter.com/projects/2074185253/ramos-alarm-clock/</a>
78	Try iOS: iPhone App Development Course	<a href="https://www.kickstarter.com/projects/eallam/try-ios-iphone-app-development-course">https://www.kickstarter.com/projects/eallam/try-ios-iphone-app-development-course</a>
79	Heirloom Chemistry Set	<a href="https://www.kickstarter.com/projects/1742632993/heirloom-chemistry-set">https://www.kickstarter.com/projects/1742632993/heirloom-chemistry-set</a>
80	Desktop 3D Scanner	<a href="https://www.kickstarter.com/projects/621838643/desktop-3d-scanner">https://www.kickstarter.com/projects/621838643/desktop-3d-scanner</a>
81	B-Squares: Modular Solar Powered Electrics	<a href="https://www.kickstarter.com/projects/jmcrae/b-squares-modular-solar-powered-electrics">https://www.kickstarter.com/projects/jmcrae/b-squares-modular-solar-powered-electrics</a>
82	#AirQualityEgg	<a href="https://www.kickstarter.com/projects/edborden/air-quality-">https://www.kickstarter.com/projects/edborden/air-quality-</a>

		egg
83	Spiri, a programmable flying robot	<a href="https://www.kickstarter.com/projects/914887915/spiri">https://www.kickstarter.com/projects/914887915/spiri</a>
84	Bukito Portable 3D Printer - Take it everywhere!	<a href="https://www.kickstarter.com/projects/deezmaker/bukito-portable-3d-printer-take-it-everywhere/">https://www.kickstarter.com/projects/deezmaker/bukito-portable-3d-printer-take-it-everywhere/</a>
85	C.24 - The Music Keyboard for iPad	<a href="https://www.kickstarter.com/projects/miselu/c24-the-music-keyboard-for-ipad">https://www.kickstarter.com/projects/miselu/c24-the-music-keyboard-for-ipad</a>
86	blink(1), the USB RGB LED	<a href="https://www.kickstarter.com/projects/thingm/blink1-the-usb-rgb-led/">https://www.kickstarter.com/projects/thingm/blink1-the-usb-rgb-led/</a>
87	Multiplo: Create Your Own Robot	<a href="https://www.kickstarter.com/projects/1689254125/multiplo-create-your-own-robot">https://www.kickstarter.com/projects/1689254125/multiplo-create-your-own-robot</a>
88	BrickPi: LEGO® Bricks with a Raspberry Pi Brain	<a href="https://www.kickstarter.com/projects/john-cole/brickpi-lego-bricks-with-a-raspberry-pi-brain">https://www.kickstarter.com/projects/john-cole/brickpi-lego-bricks-with-a-raspberry-pi-brain</a>
89	BitLock: Turning your smart phone into your bike key	<a href="https://www.kickstarter.com/projects/126495570/bitlock-turning-your-smart-phone-into-your-bike-ke">https://www.kickstarter.com/projects/126495570/bitlock-turning-your-smart-phone-into-your-bike-ke</a>
90	Soundlazer	<a href="https://www.kickstarter.com/projects/richardhaberkern/soundlazer">https://www.kickstarter.com/projects/richardhaberkern/soundlazer</a>
91	Ototo: Make Music from Anything	<a href="https://www.kickstarter.com/projects/905018498/ototo-make-music-from-anything">https://www.kickstarter.com/projects/905018498/ototo-make-music-from-anything</a>
92	OpenBeam Kossel Pro - A new type of 3D Printer	<a href="https://www.kickstarter.com/projects/ttstam/openbeam-kossel-pro-a-new-type-of-3d-printer/">https://www.kickstarter.com/projects/ttstam/openbeam-kossel-pro-a-new-type-of-3d-printer/</a>
93	Insight: Smarter Tech for the Smarter Athlete	<a href="https://www.kickstarter.com/projects/1655571865/insight-smarter-tech-for-the-smarter-athlete">https://www.kickstarter.com/projects/1655571865/insight-smarter-tech-for-the-smarter-athlete</a>
94	OpenWorm: A Digital Organism In Your Browser	<a href="https://www.kickstarter.com/projects/openworm/openworm-a-digital-organism-in-your-browser/">https://www.kickstarter.com/projects/openworm/openworm-a-digital-organism-in-your-browser/</a>
95	The Vo-96 Acoustic Synthesizer	<a href="https://www.kickstarter.com/projects/38513516/the-vo-96-acoustic-synthesizer">https://www.kickstarter.com/projects/38513516/the-vo-96-acoustic-synthesizer</a>
96	LightUp: Learn by Making	<a href="https://www.kickstarter.com/projects/lightup/lightup-learn-by-making">https://www.kickstarter.com/projects/lightup/lightup-learn-by-making</a>
97	The MicrobeScope	<a href="https://www.kickstarter.com/projects/1446839815/the-">https://www.kickstarter.com/projects/1446839815/the-</a>

		microscope
98	Picade: The arcade cabinet kit for your mini computer	<a href="https://www.kickstarter.com/projects/pimoroni/picade-the-arcade-cabinet-kit-for-your-raspberry-p?ref=discovery">https://www.kickstarter.com/projects/pimoroni/picade-the-arcade-cabinet-kit-for-your-raspberry-p?ref=discovery</a>
99	RAPIRO: The Humanoid Robot Kit for your Raspberry Pi	<a href="https://www.kickstarter.com/projects/shota/rapiro-the-humanoid-robot-kit-for-your-raspberry-p">https://www.kickstarter.com/projects/shota/rapiro-the-humanoid-robot-kit-for-your-raspberry-p</a>
100	kyCube: The First Satellite Launched by You!	<a href="https://www.kickstarter.com/projects/880837561/skycube-the-first-satellite-launched-by-you">https://www.kickstarter.com/projects/880837561/skycube-the-first-satellite-launched-by-you</a>
101	NoFlo Development Environment	<a href="https://www.kickstarter.com/projects/noflo/noflo-development-environment">https://www.kickstarter.com/projects/noflo/noflo-development-environment</a>
102	MetaWear: Production Ready Wearables in 30 Minutes or Less!	<a href="https://www.kickstarter.com/projects/guardyen/metawear-production-ready-wearables-in-30-minutes">https://www.kickstarter.com/projects/guardyen/metawear-production-ready-wearables-in-30-minutes</a>
103	Romo– The Smartphone Robot	<a href="https://www.kickstarter.com/projects/peterseid/romo-the-smartphone-robot">https://www.kickstarter.com/projects/peterseid/romo-the-smartphone-robot</a>
104	LOGi FPGA Development Board for Raspberry Pi - Beaglebone	<a href="https://www.kickstarter.com/projects/1575992013/logi-fpga-development-board-for-raspberry-pi-beagl">https://www.kickstarter.com/projects/1575992013/logi-fpga-development-board-for-raspberry-pi-beagl</a>
105	Pi-Bot: The Next Great Tool for Learning Arduino Robotics!	<a href="https://www.kickstarter.com/projects/1158090852/pi-bot-the-next-great-tool-in-robotics-learning-pl?ref=discovery">https://www.kickstarter.com/projects/1158090852/pi-bot-the-next-great-tool-in-robotics-learning-pl?ref=discovery</a>
106	OpenROV - The Open Source Underwater Robot	<a href="https://www.kickstarter.com/projects/openrov/openrov-the-open-source-underwater-robot">https://www.kickstarter.com/projects/openrov/openrov-the-open-source-underwater-robot</a>
107	Smoothieboard - The future of CNC motion control	<a href="https://www.kickstarter.com/projects/logxen/smoothieboard-the-future-of-cnc-motion-control">https://www.kickstarter.com/projects/logxen/smoothieboard-the-future-of-cnc-motion-control</a>
108	Public Lab DIY Spectrometry Kit	<a href="https://www.kickstarter.com/projects/jywarren/public-lab-diy-spectrometry-kit/">https://www.kickstarter.com/projects/jywarren/public-lab-diy-spectrometry-kit/</a>
109	Patchblocks - programmable mini synth modules	<a href="https://www.kickstarter.com/projects/2012099678/patchblocks-programmable-mini-synth-modules">https://www.kickstarter.com/projects/2012099678/patchblocks-programmable-mini-synth-modules</a>

110	TinyDuino - The Tiny Arduino Compatible Platform w/ Shields!	<a href="https://www.kickstarter.com/projects/kenburns/tinyduino-the-tiny-arduino-compatible-platform-w-s/">https://www.kickstarter.com/projects/kenburns/tinyduino-the-tiny-arduino-compatible-platform-w-s/</a>
111	blink(1) mk2, the USB RGB LED, improved	<a href="https://www.kickstarter.com/projects/thingm/blink1-mk2-the-usb-rgb-led-improved">https://www.kickstarter.com/projects/thingm/blink1-mk2-the-usb-rgb-led-improved</a>
112	Kolibree: The World's First Connected Electric Toothbrush	<a href="https://www.kickstarter.com/projects/2134904849/kolibree-the-worlds-first-connected-electric-tooth">https://www.kickstarter.com/projects/2134904849/kolibree-the-worlds-first-connected-electric-tooth</a>
113	ArduSat - Your Arduino Experiment in Space	<a href="https://www.kickstarter.com/projects/575960623/ardusat-your-arduino-experiment-in-space?ref=discovery">https://www.kickstarter.com/projects/575960623/ardusat-your-arduino-experiment-in-space?ref=discovery</a>
114	Hypothes.is - Taking peer review to the Internet.	<a href="https://www.kickstarter.com/projects/dwhly/hypothesis-taking-peer-review-to-the-internet/">https://www.kickstarter.com/projects/dwhly/hypothesis-taking-peer-review-to-the-internet/</a>
115	The Return of Upcoming.org	<a href="https://www.kickstarter.com/projects/waxpancake/the-return-of-upcomingorg">https://www.kickstarter.com/projects/waxpancake/the-return-of-upcomingorg</a>
116	Lumafit - Interactive Fitness Coach With Heart Age Tracking.	<a href="https://www.kickstarter.com/projects/1965740681/lumafit-worlds-first-fitness-tracker-for-body-and">https://www.kickstarter.com/projects/1965740681/lumafit-worlds-first-fitness-tracker-for-body-and</a>
117	Lenzhound Wireless Lens Motor Control System	<a href="https://www.kickstarter.com/projects/1608311032/lenzhound-wireless-lens-motor-control-system">https://www.kickstarter.com/projects/1608311032/lenzhound-wireless-lens-motor-control-system</a>
118	Safecast X Kickstarter Geiger Counter	<a href="https://www.kickstarter.com/projects/seanbonner/safecast-x-kickstarter-geiger-counter">https://www.kickstarter.com/projects/seanbonner/safecast-x-kickstarter-geiger-counter</a>
119	µCurrent GOLD - Precision Multimeter Current Adapter	<a href="https://www.kickstarter.com/projects/eevblog/current-gold-precision-multimeter-current-adapter">https://www.kickstarter.com/projects/eevblog/current-gold-precision-multimeter-current-adapter</a>
120	Ninja Blocks: Connect your world with the web.	<a href="https://www.kickstarter.com/projects/ninja/ninja-blocks-connect-your-world-with-the-web">https://www.kickstarter.com/projects/ninja/ninja-blocks-connect-your-world-with-the-web</a>
121	STEAM Carnival	<a href="https://www.kickstarter.com/projects/twobitcircus/steam-carnival-0">https://www.kickstarter.com/projects/twobitcircus/steam-carnival-0</a>
122	My N3RD: Connect and Control Anything from Anywhere	<a href="https://www.kickstarter.com/projects/1085386850/my-n3rd-connect-and-control-anything-from-anywhere">https://www.kickstarter.com/projects/1085386850/my-n3rd-connect-and-control-anything-from-anywhere</a>



## Appendix 2 – Survey Questions

# Crowdfunding e as Ferramentas Web 2.0

O presente questionário destina-se á recolha de dados para a elaboração de um Relatório de Mestrado subordinado ao tema: “Crowdfunding e a Sinalização da Web 2.0”, faz parte de um estudo a realizar no Instituto Politécnico de Portalegre, integrado no Mestrado de Empreendedorismo e Gestão de PME na área de Ciências Empresariais. Este questionário é anónimo e confidencial. Obrigado pela colaboração. Pedro Mourisco.

\*Obrigatório

Profissão

Sexo: \*

Marcar apenas uma oval.

- Masculino
- Feminino

Idade: \*

Marcar apenas uma oval.

- Menos de 21 anos
- Entre 21 e 25 anos
- entre 25 e 30 anos
- Entre 30 e 40 anos
- entre 40 e 50 anos
- entre 50 e 60 anos
- mais de 60 anos
- Outro:

Área de Formação \*

Marcar apenas uma oval.

- Artes e humanidades
- Ciências Sociais e Direito
- Ciências
- Ciências da Saúde
- Engenharia e Arquitetura
- Outro:

Ocupação \*

Marque todas que se aplicam.

- Trabalha
- Estuda
- Trabalha e Estuda

3. O conceito Web 2.0 é-lhe familiar? \*

Marcar apenas uma oval.

- Não
- Sim

Das seguintes atividades faz regularmente? \*

Marque todas que se aplicam.

- Fazer "posts" nas redes sociais ( posts em Facebook, Tweets no Twitter, outros)
- Comentar (nas redes sociais, websites, blogs, outros)
- Fazer "Uploads" de videos (nas redes sociais, websites, outros)
- Escrever num blog pessoal
- Partilhar em "Peer-to-Peer" (exemplo: Compartilhar ficheiros no Bitlord ou Bittorrent)
- Fazer "Upload" de imagens
- Contribuir para Wikis (exemplo: contribuir para a Wikipedia)
- Fazer Tag (exemplo: identificar pessoa ou local numa fotografia)
- Nenhum dos acima referenciados

Quais dos seguintes sites ou programas conhece? \*

Marque todas que se aplicam.

- Facebook
- Netscape
- Akamai
- Bittorrent
- Wordpress
- Blogspot
- Britannica Online
- Napster
- Twitter
- Wikipedia
- Youtube
- DoubleClick
- Google AdSense
- Nenhum

Acredita que a Web 2.0 é uma forma de vantagem competitiva para as Pessoas e para as Empresas? \*

Marcar apenas uma oval.

- Sim
- Não
- Não sei

Acredita na utilidade e na veracidades dos conteúdos e na informação criada por terceiros na Internet ? \*

exemplo: Perfil de LinkedIn

Marcar apenas uma oval.

- Sim
- Não

## Crowdfunding

Gostaríamos de saber a sua opinião sobre esta forma de financiamento  
Que formas de financiamento conhece? \*  
Marque todas que se aplicam.

- Capital de Risco
- Empréstimo Bancário
- Empréstimo Obrigacionista
- Participação no Capital Social
- Subsídio/Empréstimo Governamental
- Financiamento através de Amigos e Família
- Leasings
- Nenhuma
- Outro:

Sabe o que é o crowdfunding? \*  
Marcar apenas uma oval.

- Sim
- Não

Conhece alguma destas plataformas de crowdfunding ? \*  
Marque todas que se aplicam.

- Kickstarter
- Indiegogo
- Sellband
- PPL
- Massivemov
- Seedrs
- Crowdfunder
- RocketHub
- Lending Club
- Zopa
- Crowdrise
- Somolend
- Angelist
- Não conhece nenhuma em cima mencionadas
- Outro:

Quais são as áreas que acha que o Crowdfunding está presente? \*  
Marque todas que se aplicam.

- Empreendedorismo
- Cultura
- Social

- Tecnológico
- Financeiro
- Outro:

Já alguma vez contribuiu para o financiamento de um projeto de crowdfunding?

\*

Marcar apenas uma oval.

- Sim
- Não

Conhece Pessoa ou Projetos que já foram financiados desta forma? \*

Marcar apenas uma oval.

- Sim
- Não

No seu entender é uma boa forma de conseguir financiamento para um projeto?

\*

Marcar apenas uma oval.

- Sim
- Não

Já colaborou ou contribuiu para projetos deste tipo? \*

Marcar apenas uma oval.

- Sim
- Não

Se já contribuiu ou conhece quem o fez, qual foi o montante dessa contribuição?

\*

Marcar apenas uma oval.

- 10 € a 50€
- 51€ a 250€
- 251€ a 500€
- 501€ a 1000€
- Mais de 1.000€
- Nunca contribui e não conheço alguém que tenha contribuído

Se quisesse fazer uma contribuição para uma campanha de crowdfunding, julga que ela seria relevante para o sucesso da mesma? \*

Marcar apenas uma oval.

- Muito Relevante
- Relevante
- Pouco Relevante
- Irrelevante

Já alguma vez fez um comentário numa página de uma campanha de crowdfunding? \*

Marcar apenas uma oval.

- Sim
- Não

Na sua opinião acha relevante uma campanha de crowdfunding ter um video de apresentação do projeto ? \*

Marcar apenas uma oval.

- Sim
- Não

**Obrigado pela sua participação**