

# **POLITECNICO DI TORINO**

**Thesis of Master Degree in Management and Engineering**



**Equity Crowdfunding as an option to boost the participation of the crowd and  
government in business**

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## **1. INTRODUCTION**

Entrepreneurial activity can stem from different ways: it can be child's dreams, boosted by parental influence or they come from existing organizations. Whatever being the case all of them start with the necessity to fund their idea to materialize it in a product/service.

Then, one of the first issue that an entrepreneur have to face are economic difficulties to figure out the answer the question: How can I get money to start my business? Sometimes, the answer could be easy because a common thinking is: if the business will generate cash, it would be possible to pay debts with that money. Unfortunately, the real life is not so trivial, and the majority of times a business takes a long time to generate cash.

In other cases, a simple resolution can be searching for common solutions such as: personal financing, bank loan, leasing companies, bootstrapping programs, or governmental programs for entrepreneurs. However, one more time, the solution is not so simple due to every model provides pros and cons for entrepreneurs. What is more, the majority of them ask for requirements hard to fulfill in a pre-seed, or even seed phase such as: age of the person in charge, experience or time in the business, a minimum level of sells after specific time, type of business or sector, or the minimum payment of the borrow is too high.

And if that was not enough, another problem to cope with is the finance ignorance. Culture in finance is not common for everybody, either for training or information; the lack of interest and/or preparation lead the no vision in issues related to finance in medium or long term.

### **1.1 Why crowdfunding.**

Here is when the concept of crowdfunding appears as an innovative solution for starving entrepreneurs who are looking for a support. This mechanism works in the sense that, a person just have to upload his/her idea on a platform to publish the project through a platform, justifying their project, explaining a working plan and what will they do after raised funds. Once the entrepreneur have done that, the project is available for all people who potentially can become in a community of investors.

Consequently, any person can be a backer of any project in any place at any moment around the world. So, a backer can donate any amount of money, it can go from 1 cent until reach thousands of euros (depending on the maximum limit according to regulations). Hence, one project can be supported by many different investors (backers). In other words, platforms works as a link to connect innovators with those who need innovation, a tool where a creator can reach out to customers and communities where they can receive money, and a feedback.

An entrepreneur does not have to be subjected to labor hours of any institution; totally different under crowdfunding scheme where the entrepreneur just have to wait until collect the money. The uncertain is the collection can be as soon as backers decide to provide money; otherwise, the time can goes by until reach a limit. Finally, a creator must show the final product as a result of the money collected.

This finance instrument comes to disrupt the traditional bank loans and bureaucratic procedures that impede to go-forward with a business that at the very beginning start as a merely dream. Besides, crowdfunding receive the benefit of being a creation in the web 2.0 (social web) and consequently there are available a plenty of material who can help as a guideline to a person who wants to start a project. There are either a guide to upload a project, and also there are blogs dedicated to help in any case.

Crowdfunding have subdivision where sponsored can choose among donation, reward, lending, and equity. The choice depends on their interest, and the proper functioning rely on several things where it stands out geography, community, technological development and legal framework.

## **1.2 Objectives and scope of the thesis.**

The purpose to this work is to elaborate a reference framework more robust than the current available works, showing the variables that influence the performance for the implementation of crowdfunding through examples that demonstrate the most relevant categories.

In addition, it is shown how equity crowdfunding is a real option to engage to a venture, the influence exerted by and how it can growth through this variant. This will be under certain

suppositions and specific information to exemplify how the decision maker with imperfect information, tend to be dependent from others behavior.

### **1.3 Structure of the document**

This describe the context introductory part introduction of the thesis as Equity Crowdfunding as an alternative to growth an enterprise. And despite the title is focused on equity crowdfunding, it is mandatory to understand the implications and background of the crowdfunding performance.

For that reason in the second chapter it is explain different financial alternatives that exist in the market with a brief explanation of the functioning, advantages and disadvantages of each of them. While in the third chapter is the taxonomy of crowdfunding, in this chapter it is explain the common division in typology, the explanation of how it works, pros and cons of each type. In addition to an example with the categories of the well-known platform of Kickstarter.

In the chapter four, it is explain the crowdfunding ecosystem and it is describe in detail the factors who affect it as geography, technological basis and the needs of cooperation, community basis, and legal framework.

In the chapter five, it is explain the advantages of the equity crowdfunding, explaining why it is hard for majority of people, also it is describe how it is easy the influence to cause information cascade in this type of crowdfunding and the risks.

Finally, in the chapter six are defined the conclusions of the present work and proposals for future research.

## **2. TAXONOMY OF CROWDFUNDING.**

There are variations in this instrument where there are different business model depending on the type retribution/reward that is proposed to the investors (what is the main motivation for engaging crowdfunding). In this section it will describe different definitions of taxonomy of some authors to exemplify the variation in typology; and the description of the common

taxonomy – and hence the most used – in platforms: donation-based, reward-based, lending-based and equity based.

## **2.1 What is Crowdfunding?**

The crowdfunding – also known as collective funding – is a method to obtain the resources to carry out a project through collecting money from the community. The field of specialization of the projects is diverse, it is possible to find different areas from technology to arts. For instance, it is easy to find projects related to design and high-tech and at the same time it is possible to find projects related to music, dance, food, games.

Crowdfunding (CF) is supported by platforms available in internet that make possible the connection between the projects and people who wants to participate as investor. Searching is easy through platforms that are specialized in this mechanism, for example the world famous companies as Kickstarter and Indiegogo are a good example of the scope of these powerful platforms to achieve financing.

There are several definitions of crowdfunding where all of them converge when an entrepreneur takes small amounts of money (capital) from the “crowd” (people) to fund an idea or project to carry out a new business, taking advantage of the accessibility of social network.

Basically, it is the financing of a project or a venture by a group of individuals, whoever with altruist desires, instead of professional parties. This act occurs without any intermediary: entrepreneurs “tap the crowd” by raising the money directly from individuals. The typical mode of communication is through the Internet [Schwienbacher and Larralde, 2010].

Crowdfunding success is linked to several factors; however, the most representative are project quality, social networks, geography (it means the location of the project), national culture (in some countries is more feasible its use than others) and legal regulations (rely on governmental legislations) all of them will be explained in detail in other sections later.

As it was mentioned before, a high quality level, the information available for the user and the presentation of the idea, concept, or product increase the probability to be funded. In a similar

way, a large numbers of family and friends on online social networks are similarly associated with success. Crowdfunding is most often associated with community-based experiences that generate “community benefits” for participants. The nature of these community benefits varies in the form of crowdfunding because community benefits are linked to the consumption experience under the pre-ordering mechanism and to the investment experience under the profit-sharing mechanism [Belleflamme, Lamber and Schwienbacher 1, 2013].

Crowdfunding is a term describing a new twist on a relatively old practice of raising money. In the broadest sense, is used to describe a form of capital raising whereby groups of people pool money, typically comprised of very small individual contributions, to support an effort by others to complete a specific goal [U.S. Securities and Exchange Commission, 2017]. There is a strong geographic component to the nature of projects, with founders proposing projects that reflect the underlying cultural products of their geographic area [Mollick, 2013].

In the figure 2.3 it is shown a graphic illustration with the different financial instruments to get funding and enterprise development (it was made based in a similar infographic published in ‘Funding the Future’ [EY, 2012]. This figure illustrate the level of complexity of the instrument and the expected company’s revenues (both in the ordinate). While in the axis of abscissas, there is a double axis where it is found the lifetime cycle of an enterprise and company’s development stage; since their very beginning until their mature. In addition to the risk that represent for the lender to grant the loan.

So, longer is the time since the foundation of the company, greater is the revenue (at least it is expected). Consequently, the finance instrument can change as company matures over time. Another aspect is for ‘seed and development’ phase there are several options to get monetary aid where crowdfunding is a very good option to start raising money at the end of ‘pre-seed’ phase or at the beginning of ‘seed and development’ because it reduce the searching time for financing, the money can be collected in short time. However, this is something relative due to the time that the owner of a project spend to do the campaign through CF platform.

Moreover, this instrument can help an enterprise during the ‘startup’ phase and boost in ‘growth and development’ only if the owner of the project search the support of the community where they would provide mentoring. Otherwise, crowdfunding would be weak in contrast to venture capital in the field of mentoring assistance.

If the company is beyond the ‘growth and development’ phase, it is not recommended due to in crowdfunding exist a cap to collect money, while for venture capital and private equity is an open figure to invest. In that case most suitable is other instruments like venture capital, bank loans or private equity.

If the project have a risk of losing a patent due to intellectual property or trade/commercial secret disclosure, probably crowdfunding is not the best option; although exist a path through equity crowdfunding; however, it is important to highlight that not all the instruments can be applicable to all kind of business.

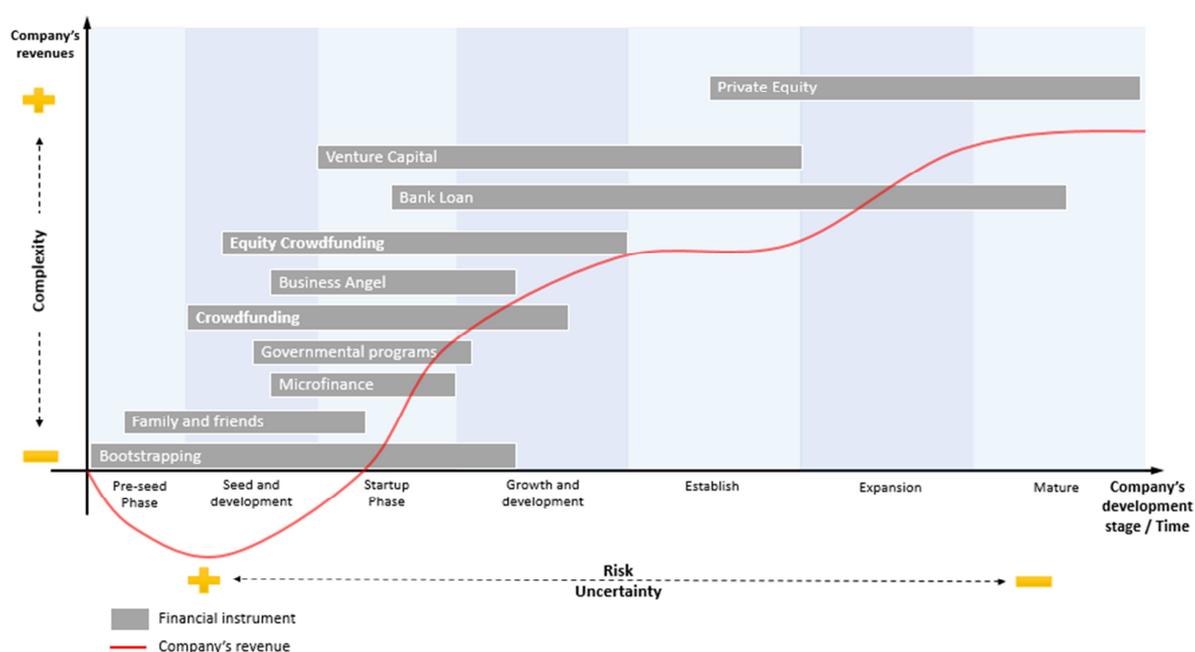


Figure 2.3. SME development and funding instruments.

Probably the bank loan is the unique instruments who can be able to fund a company since the early beginning but it is possible due to different schemes that can be adapted according to the size, age, environment, level of revenues, track records, regulations, and any other requirements.

On the other hand, the crowdfunding as an innovative process in the market of funding, it has caused a disruption in the industry of this sector. Consequently, it has been influencing not only the way of raising money and materialized ideas, but also in the market trends, and mainly the influence in governments to regulate this innovative process.

## **2.2 Types of crowdfunding.**

Basically, this instrument has as objective to collect money for investment using online social networks. In other words, instead of raising money from a small group of investors, crowdfunding helps firms obtain money from large audiences (the crowd) in which each individual provides an amount, either small or large amount.

Nevertheless, it does not exist a unique taxonomy to define each type in crowdfunding, probably because belongs to a young industry. As a matter of fact, it is possible to find different definitions per author and sometimes per platform. For example, the terms crowdlending, crowdfinance or crowdinvesting are common to find but they lack of a specific definition [CF Hub, 2016], and several times are used as a synonym of equity crowdfunding. Another example is real estate crowdfunding, social crowdfunding or community shares where all of them are slightly variations from equity or lending based

## **2.3 Broad in typology definition.**

For some authors, crowdfunding can be classified in two general groups according to the purpose: philanthropic or commercial. From this simple “generalization” exist differences because for some other authors it can be: donation and investing; however, the most common division are between non-investment based model and investment-based models.

For Schwienbacher and Larralde establish that, to describe the concept of crowdfunding, it is necessary to start from the parent notion of crowdsourcing because they see crowdfunding as a part of crowdsourcing [Schwienbacher and Larralde, 2010].

Crowdsourcing takes place when a profit oriented firm outsources specific tasks essential for the making or sale of its product to the general public (the crowd) in the form of an open call over the internet, with the intention of animating individuals to make a contribution to the firm’s production process for free and that contribution is worth to the firm [Kleemann, Voß and Rieder, 2008]. In that sense, crowdfunding is viewed as an element of crowdsourcing because it deals with consumers (investors) providing money to help a project/business.

Other authors as Lambert and Schwienbacher, made a study grouping types of remuneration schemes, where they make a distinction among donations, passive investment and active investment, where:

- Donations. Several crowdfunding platforms seek altruist activity as donations rather than offering a reward or something in return. For nonprofit organization companies this kind of scheme makes easy the fundraising [Lambert and Schwienbacher, 2010].
- Passive investment. This typology offers something in return to the investors as a reward. Nevertheless, the investors are not allowed to take active part in the organization nor decisions making of the company nor voting for selected characteristics of a final product.
- Active investment. In contrast to the passive investment, the active investment are able to be part in the initiatives and they have the right to vote for designing products. Sometimes investors provide valuable feedback for a product development or they can share experience for existing markets or introductions of new products.

Another example of taxonomy was mentioned by Zachary Griffin, where he establish that there are five broad types of crowdfunding differentiated by what the contributor receives from the entrepreneur in exchange for his capital and the models are: donation, reward, pre-purchase, lending, and equity [Griffin, 2013].

In general terms, there are four major types (at least are the most common to find them in platforms) of crowdfunding platforms: lending-based, equity-based, reward-based and donation-based.

In the figure 3.1 it is shown the major types of crowdfunding platforms divided by motivation for engaging, it could be for financial return, philanthropy or sponsorship, or non-monetary reward. At the same time it is illustrated the level of complexity versus the percentage of platforms around the world where.

A report based on information from Crowdfunding Industry Report by Massolutions (conducted by Crowdsourcing.com with analysis led by Crowdsourcing LLC's research) and also with a significant research conducted via other reliable sources made an analysis over a sample of 135 platforms where the most common type was donation based because is the

easier to apply and understand for the people [CIR, 2012]. In contrast to equity and lending based where both are complex because involve transactions, reward with profitability margin, equity and so forth.

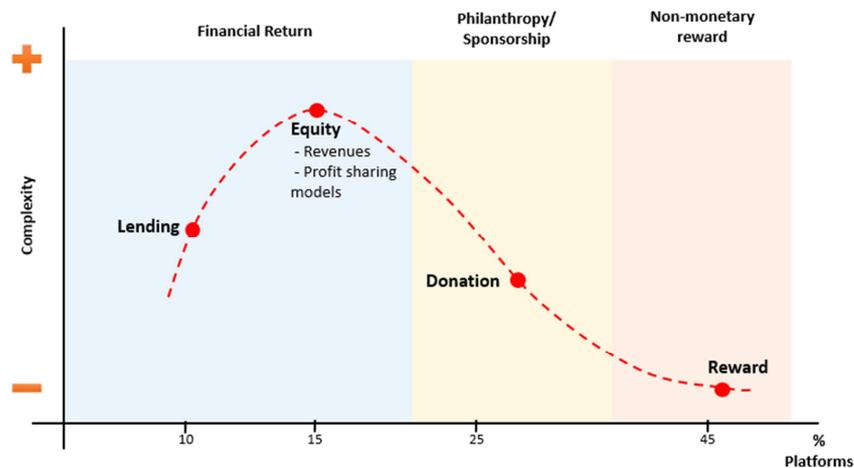


Figure 3.1. Major types of crowdfunding over a sample of 135 platforms.

Nevertheless, this sample it is skewed because it is disregarding information from Asia. Besides, unfortunately there are no accurate figure to write the correct number of platforms in the world. This is due to the majority of platforms are available to choose the typology.

For instance, Indiegogo have the option to choose donation, or equity-based. Or CroFun.be, a Belgium platform that is a mixed model offering different types to provide/receive money as donation, reward, loans, bonds and profit sharing.

Below it is described common categories of crowdfunding platforms as donation, reward, lending and equity. The last is following the Crowdfunding Industry Report where, despite there are other types as real-estate, invoice trading, debt-based securities, or profit sharing; the common typology in platforms are the former four. After the overall description of the operation, it is explained the pros and cons from the point of view of the donor and the beneficiary.

### 2.3.1 Donation-base model.

This is the easiest way to raise money for a project by asking a large number of contributors to individually donate a small amount to it. In return, the backers may receive symbolic rewards; however, also exist the possibility that the funder may receive nothing [Investopedia Donation].

In other words, this model works through charitable or social projects. The participants under this circumstance make the donations in a free way to pursue a case worthy of consideration, without receive a reward or something in return.

The most outstanding point is that for this model crowdfunding is popular for small organizations and people raising money for personal or specific charitable causes. In 2015 this type collected around €371 million, and an example of this kind of model is the German platform *BetterPlace* ([www.betterplace.com](http://www.betterplace.com)) which is more focused on donation and social projects than any other kind of models.

The benefits of this model for the beneficiary are that he/she is not obligated to pay any kind of debt because the money was donated; and using a platform, both donor and beneficiary formalize a common support of the amount donated [Jenik, Lyman and Nava, 2017]. Meanwhile for donator, probably the most outstanding benefit is the participation in the community with philanthropic activities.

On the other hand, the possible risks are frauds for both parts. From the view of the donor can be the risk of fraud to give the money for a “ghost” project; and from the view of the beneficiary cannot receive the promised money. Another possible, and more elaborated, risk could be money laundering.

### **2.3.2 Reward based model.**

This model allow the crowd to support projects and receive in return a non-monetary reward. In some cases, the project is presented in a tiered system where higher contribution obtain a better reward. It can be represented by goods or services, and the investor can enjoy them in a successive stage. From another point of view, reward-based works as a pre-sales scheme where the entrepreneur allows the donor to be the first in receive the product once de production is complete [FNC, 2015].

A well-structured reward-based allows companies starting with orders already in the budget and with a guaranteed cash flow (a relevant element for startups) as well as creating an audience and contacting a potential reference market before the launch of a product.

Then, ideally the recovered funds should not be returned, even if there is an obligation on the enterprise, to provide the promised product and/or service. Such features make this tool a very suitable option for entrepreneurs, particularly suited to delivering innovative products, services or simply to stimulate consumer curiosity.

This model is commonly used to fund projects related to creative (arts, music, dance, films, festivals, etc.) social (helping others, community) and entrepreneurial activities (startups and businesses). Moreover, it is the largest crowdfunding category in terms of platforms; consequently, it is popular among people.

Some of the benefits for beneficiaries are, for instance, offers pioneer status for the segment of innovator (enthusiast) and early adopters (visionaries) [Jenik, Lyman and Nava, 2017]. Both conform the 16% of the market segments along the innovative products' lifecycle (normally related to technological issues) and this point will be developed later.

This model allows beneficiaries to access capital at a lower cost compared to traditional sources because it offers a better outreach and targeting, monetization of assets and technological innovations. An example of platform operating with this based is the French platform of *KissKissBankBank* ([www.kisskissbankbank.com](http://www.kisskissbankbank.com)) collecting more than €77 million for around 29,000 projects.

On the contrary, some risks are hyper-expectations for both sides – donor and beneficiaries – about incomes; incompetence to manage the funds or biased for “wisdom of the crowd” due lack of diligence.

### **2.3.3 Pre-purchased-based model.**

This model is not so common in platforms nor it is frequently mentioned by authors because it is an evolution of reward-based and in a certain sense it represents a moment of transition in the participation scheme, particularly it is use for a newly formed company.

Such typology foresees that the lender, in addition to the conditions of advantage associated with the use of the services provided by the company or the purchase of its products. Besides, it can be attributed an eventually right to buy shares [FNC, 2015].

#### **2.3.4 Lending based model.**

Also known as debt crowdfunding, or market place lending. Debt crowdfunding is used to raise funds for all sorts of purposes ranging from individual consumption to business loans. Rely on the main objective encouraged by the platform, it is possible to distinguish: nonprofit lending, socially oriented lending, and commercial lending; as a consequence there are different subcategories [Jenik, Lyman and Nava, 2017]. Nonetheless, a common division is between peer-to-peer consumer lending, where individuals or institutional funders provide a loan to a consumer borrower [UC Europe, 2016] and peer-to-peer business lending but for effect of the thesis both will be enclosed in only one.

It is close to an evolution of peer-to-peer model of lending, where projects/businesses apply through a platform uploading their project, and with the support of members of the crowd take small parts of the overall loan. The crowd is rewarded for their investment over time with a profitability margin represented by the interests agreed at the time of resource input.

From a point of view, it can be seen as an alternative of a bank credit with the difference that, instead of borrowing from a single source, business can get resources from a couple to hundreds of people willing to lend money. Majority of times, they are the same investors to bid, indicating the interest rate they would be willing to lend. According to *Fondazione Nazionale dei Commercialisti* [FNC, 2015], this model shows some particularities:

- Increase the possibility to access to a short credit.
- More flexibility in the in case of a campaign is getting up in popularity.
- Generally the minimum loan threshold is low; so the transaction may appeal and involve large audience.
- The loan is repaid through direct payments in the platform, which subsequently distributes the repayments to lenders.

This typology concentrate the majority of the fund through crowdfunding platforms around the world. In 2015, lending based collected €97,915 million, representing 96% of the total raised funds. A common example of lending-based platform is the Kiva.com, it is an American platform with offices in Africa, and it has presence in 82 countries. This platform is focused on social causes offering interest-free loans

The advantages of this type are for the funder the possibility to get a high financial return and access to a new asset class [Jenik, Lyman and Nava, 2017]. Meanwhile, for fundraisers the pros are available money through a platform who works in a scheme of 24 hours all the week during a whole year. Besides, that money is enabled at a lower cost than any other traditional instruments.

Unfortunately, there are several risks because of weak protections in regulations but this rely on the country. For instance, the risk of default is high due to the nature of the business as startups and SME. But there are not any regulations that protect this kind of investment; then, it is risky for funders to lose their money in case of the fundraiser defaults. In addition, the lack of transparency and shortage of liquidity can make discourage to any participant.

### **2.3.5 Equity-based model.**

Equity crowdfunding allows individual and institutional investors to invest in unlisted entities (issuers) in exchange for shares in the entity [Jenik, Lyman and Nava, 2017]. Also called investment model because it is to invest for equity, revenue or sharing in projects/business. It is defined as a model in which ‘crowdfunders’ receive a financial compensation as equity, revenue and profit-share arrangements [Belleflamme, Lambert and Schwienbacher 2, 2013]. According to the *Fondazione Nazionale dei Commercialisti* [FNC, 2015] some of most representative characteristics of equity-based are:

- It has an open door to a wide range of potential investors, and some of them can become in current or future customers.
- It is necessary to define the share of capital if the goal is to sell. Defining the price and the modality to reward the investors.

- This mechanism brings the opportunity to find a large number of co-owners instead of a few large investors with lower financial and organizational burdens than quoting on the stock exchange.
- Although it is a simplified way of collecting capital, it is necessary to demonstrate that the company is mature for the planned investment by presenting a business plan and financial projections
- The rights of investor may vary. In general, shareholders have the right to vote on the main aspects of business management, the issue of new shares or quotas. During the planning phase, accurate estimates are required in relation to the company's control portion that the contractor is willing to sell to external stockholders.

This model is the most suitable to invest in startups and SMEs. In case that an investment reach its target, the deal is closed between the pool of funders, the issuer, and the platform. The platform charges a commission based on the amount raised and, in some cases, on the basis of future profit [Jenik, Lyman and Nava, 2017].

Some platforms allow to any person to take a small participation in an unlisted or private business through crowdfunding. While, others has focused to offer a revenue or profit-sharing model allowing to the investor to capitalize on the success of the projects that the investor support [Nesta, 2012]. This model has been developing in a slowly way due to regulatory restrictions – as a matter of fact, in some countries can works better than in others for this issue – lack of diffusion about how they works, and complexity. Another risk is the impossibility to keep a trade secret in case that this apply.

This model has been growing since 4 years ago, its use is common in Africa and Middle-East and the growth in Europe has been attractive because from 2013 to 2015 its average annual growth rate was 82.2%, and it has been increasing every year. In 2015 collected €1,990 million representing 2% of the total collected money through crowdfunding.

The main benefits for funders are access to investment opportunities related to startups and SMEs and have the opportunity to aligned incentives between funders and fundraisers. While the advantages for fundraisers are limited liability, and open access to the funds (global reach) [Jenik, Lyman and Nava, 2017].

On the other hand, the main disadvantages are the lack of regulations, or over-restriction in the investment. Making impossible to increase the operation through equity-based.

A good example of platform is Indiegogo where in conjunction with MicroVentures, created an equity crowdfunding portal that allows financial investment in innovative startups (equity.indiegogo.com).

The purpose of this thesis, as it was mentioned in the first chapter, is to illustrate in a theoretical way how to spread the knowledge about how Equity Crowdfunding works and at the same time how an enterprise can use this typology since its seed and development stage until middle part of the expansion stage.

#### **2.4 How it works.**

The majority of the platforms have guidelines to help any people to upload their project, business, idea or whatever being the case with interactive material. The platforms are available, generally, in three different languages (English, French and the third one vary depending on the country).

So, to delimit the present work, for this section it will be summarized several features of the relevant requirements that platforms as Kickstarter, Indiegogo or *Produzione dal Basso* ask to describe how a crowdfunding platform works; while for the next chapter it will be explained with platforms focused only in equity crowdfunding.

First of all, crowdfunding have a big advantage over all kind of financial instrument in the sense that quite flexible to raise money for almost any kind of project. For instance, Kickstarter have the possibility to choose among 15 different categories; while Indiegogo have all the categories organized in 3 main fields and the user can pick a specific category inside one of the main field – in total Indiegogo have 29 categories –. Hence, the number of categories vary depending on the platform.

In general terms all platforms apply similar rules, where the common denominator, based on Kickstarter and *Produzione dal Basso* [Kickstarter rules, 2018] and [PDB, 2017], to follow are the next points:

- The proposer can be natural or moral person; then, they have to fulfill with certain requirements as minimum age, residence, empowered, etc.
- Create something to share with others and publish the project on the portal. Here is important to develop a well-research, detailed and clear explanation of the market, the strategy, and how the business makes money [Stemler, 2013].
- According to the creator handbook [Kickstarter Handbook, 2018] the impression is important to attract investors; hence it is important to develop texts, videos and photographs that help to explain the business to investors in a professional and well-thought out manner. The more professional are the material, the better is the experience for potential investors [Stemler, 2013].
- Taking into account the sense of the last point, it is necessary to think about what to offer as a reward for the funding where the business must be organized to be able to offer rewards, future goods/services or issue shares to crowdfund investors.
- A project cannot publish data, contents, or any material that fall in compliance risk and/or imply an unfair competition against third parties. For example projects that create controversy with previous works protected by intellectual property laws.
- Offering sales, donations or any other transaction that involve prohibit items as: treatments against diseases, sexual content, gambling, contests, raffles, food or drinks energized, drugs and weapons.
- Exist different modalities of funding where the most common are:
  - All or nothing (AON). This model works in the sense that the entrepreneurial part (the creator) keeps the raised money only if the target is reached after the stipulated time. In other words, the creator keeps nothing unless to reach the target. AON creates an atmosphere where the potential investors (the crowd) have the confidence that the project is carried out only if the capital is raised; at the same time investors are in touch to the information provided by the entrepreneur [Cumming, 2014].  
The combination of these two features bring as a consequence a reduction in the perceived risk. AON projects usually exceed the goal raising more money because this scheme have the same deadline effect as other online marketplaces as eBay.com; where in an early stage of the project the bids from potential investors are unlikely to be revealed.

However, when the project is close to the target capital, potential investors tend to bid more and the projects is more likely to be funded; so tends to be more successful [Roth and Ockenfels, 2002]. Usually, the duration of the project under this model is 60 days.

- Take all or keep it all (KIA). The advantage of this modality is the creator has the possibility to scale the project/business. Hence, it becomes attractive for investors to select it if the project still gain utility in a partially funded project from the reward under a scale down format. With previous knowledge that they can lose money if the project is cancelled [Cumming, 2014].

For that reason this model tends to be less successful derived from latent risk of fail because the entrepreneurial part start the project with low funding. Then, the concern is a project with no specific date of release. The duration for this model usually is 120 days (twice a common campaign of AON)

- Simple donation. In this modality the creator does not indicate a specific amount of budget nor establish a mechanism of reward. The creator is entitled to receive the payment of the raised money from time by time [PDB, 2017].
- The duration rely on the platform and the modality to keep the money because it can last from 30 to 120 days; and in some cases it can be with no limit of time. Nonetheless, projects with a high number of early backers benefit to reach a larger pool of potential investors who may learn about the project through direct contact (word-of-mouth) [Vismara, 2015].
- In the first three models, all platforms have a percentage of fee on the money collected.
  - Usually, there is no minimum amount of funding; however, the maximum amount it may be differ depending on regulations of each country. This will explain later in chapter IV.

## **2.6 Landscape of the market of suppliers of money.**

As it was mentioned in the chapter I, the objective of this section is describe in general the pros and cons of funding instruments. Nowadays, there are plenty of options than a decades

ago, where entrepreneurs rely on – almost in exclusively way – from bank loans. Sometimes it was due to lack of diffusion in the information or lack of technological basis.

Market of suppliers of money has been growing to cover necessities that other instruments had forgotten, or maybe these instruments take avail on the technology basis as the smartphones and other devices with the possibility to internet access.

It is not a mere coincidence the development of these instruments because raising money is the cornerstone to start a business where many times that activity becomes in the big issue “how to ask for a loan”. Perhaps getting money can be easy, unfortunately to pay the debt can become in a nightmare due to lack of knowledge in financial education or lack of information about possibilities to get money.

Sadly, the final result is many entrepreneurial ventures remain unfunded due to several reasons; however, the most common are because of lack of sufficient value that can be pledged to financial investors and partly because of unsuccessful attempts to convince investors [Casamatta & Haritchabalet. 2011].

### **2.6.1 Existing Alternative Finance in the Market.**

While sizing up alternatives, an entrepreneur could be naive at the beginning to look for money to start a business, in fact some of the most common mistakes at the moment to search financing are:

- Lack of formality to ask for a loan: the lack of clarity brings future problems due to lack of support of the amount to pay or one part wants to take advantage of the other. The same mistake happens at the moment to run the business, where some people start their business with no permission whereas they are waiting for the permission of authorities – with the hope to get it as soon as possible – and the result can be from a penalty fee or even worst the closing of the business.
- Ignorance. It can be from financial education to knowledge of existing financial instrument (suppliers of money). This fault can stem from different sources, the

majority of times this is because entrepreneurs do not make a business plan or do not look for training, and they are biased for the idea “a good product sells quickly”.

- Do not separate personal credit from business credit [Expansión, 2014]. At the beginning an entrepreneur use his/her own credit card to finance the business but sometimes tends to make the majority of expenses with personal credit, making no differentiation between personal and business.
- Limited searching of options. There are a considerable number of money suppliers; however this is another common mistake at the moment to search money, where an entrepreneur search only in one source instead of search in many different options.
- Pay until deadline. Many people wait to pay until the deadline; consequently, they can suffer unexpected activities that can impeded them to pay on time. Hence, people have to pay interest as a result of the delay on payment.
- Invest in many resources. Sometimes an entrepreneurs spend a lot of time and money in their ideas without taking into account the real necessities of people. This kind of mistake is common for people with not too much experience in entrepreneurial activities.

Nowadays there are a lot of information in magazines, newspapers, advertisements and online websites about different funding instruments to get a loan. From traditional instruments to the most innovative mechanisms through internet, and all of them have advantages and disadvantages depending on some factors like stage of company's development.

It is important to ensure the good run of a business for many reasons because it is a new source of employment, and they are a fundamental part in the economic development; inasmuch as small-medium enterprises (SME) and entrepreneurs are a key part in the gross domestic product (GDP) for almost all the countries. For example, in Mexico there are 4,230,745 business units legally constituted, and the 99.8% are SME that generate 52% of the national GDP and 72% of the source of employment in the country [PyMe, 2016].

In the table 2.1 (based on Callegati et. Al, 2005) appears a table with the most outstanding characteristics of common financing suppliers like: family and friends (also this is quite important for crowdfunding and it will be mentioned later), bank loan, business angels, peer-to-peer, microloans, public funding, venture capital, and private equity. As it is possible to

read, there are a lot of options; nevertheless, not all are available for any people, nor for any stage of company's development.

All of them have purpose to mitigate the associated risk at the moment to run a new business, so the help of investors with experience and availability to guide becomes in a mentoring scheme in order to ensure a positive return on investment.

Suppliers of money	Criteria for accessing funding sources	Advantages	Disadvantages
<b>Family and Friends</b> [Basu and Parker] and [Lin and Viswanathan, 2013]	Personal relationship based on trust.	Borrower enjoys flexible options to pay the money.	Problems due to clarity in the payment.
	Altruism among relatives and friends.	Sometimes with no interest expense to pay.	Lack of legal documentation and/or formalization.
		Sometimes, lender receives money with no necessity to pay it.	Negative impact in the relation where a person can lose not only money, but also the relationship.
<b>Bootstrapping (personal funding)</b> [Neeley, 2012]	The easier way to finance a project	Searching cost to get a loan under advantageous conditions is low.	
	An entrepreneur is free from any interest expense, and he/she has total control over the enterprise follow their own targets and motivations [Schwienbacher and Larralde, 2010].	An entrepreneur can be focus on the management of the business due to absence of external influence.	If revenues are not enough after the launch, it is a risk in the business plan due to lack of money, having as a result financial problems.
		“Money goes where money is”, no investor puts money in a deal if they do not see the counterpart into a commitment.	Entrepreneur can isolate from any opportunity to enter in a network to meet partnerships or have an access to other contacts of suppliers or entrepreneurs.
<b>Banks</b> [BBVA, 2018]	Availability of guarantees or collateral.	In case of technology, it is not necessary to protect it immediately by intellectual property laws, and in case of a trade secret there is no risk of leakage.	Its image can lack of credibility due to nobody know as a result of the isolation.
	Perceived ability to repay the loan.	Support of a formal financial institution.	It rely on the specialization field of the business.
	Company track record.		Previous experience on the business.
	Rating.		Minimum age.
	Good management.		Good tracking record.
			Business life expectancy.
			High interest expense.

Table 2.1 Different types of suppliers of capital.

Suppliers of money	Criteria for accessing funding sources	Advantages	Disadvantages
<b>Peer-to-Peer lending</b> [Rind, 2016]	A lender can be a natural or moral person.	P2P has a low interest rate in contrast to other funding alternatives.	It is not possible to borrow someone's way out of debt.
	Correct management team.	It is available to investors in certain areas due to regulatory restrictions.	Loans seldom tend to carry higher interest rates than traditional loans.
	Everybody can ask for a loan.	It keeps anonymous of both parties.	Risk to fraud.
	Management team.	Removes a middleman between parties.	
<b>Microfinance or microloans</b> [Bishop, 2017]	Offered credit, savings, remittances, payment services, insurance and other basic financial products.	More directed to help people from poverty through building equity with small business.	Generally, the loan is a small amount.
	Small loans to people who are not able to complete requirements for a bank loan.	A microloan is given to people who does not have access to a traditional line of credit.	Microlender charge higher rates than big banks; but have less stringent underwriting criteria.
	Programs for women, old people, and entrepreneurs in necessity of small amounts of financial aid.	Usually, microlenders do not ask for a valuable collateral.	Microloans use to be too expensive due to high interest rates.
	Business plan quality.	Play an important role in poverty reduction and activate the local economy, bringing many other social benefits.	Some microcredit clients are not micro-entrepreneurs by choice. Consequently, they run a business just for a time.
<b>Business Angels</b> [Kelly and Hay, 2010]	Meeting or matching of individual entrepreneurs with business an-gels.	BA have a good word-to-mouth advertisement.	A few sector have lack of formality to do deals.
	Atmosphere of trust between individuals.	BA are open to have an informal criteria (flexible business agreement).	A few are motivated for monetary purposes, doing aside the wellness of the company.
	Credible business plan in the eyes of BA.	Monetary help and expertise offering their support and contacts in order to growth the business.	BA wants the control in running the company due to money provided, creating power fights.
	Invest in businesses that offer the prospect of large capital gains.	It is possible to find them everywhere in almost all the industries.	They can lack of industry experience, limiting their participation for the success of the company.
	Good management team.		BA seldom invest in a subsequent way due to the high risk that represent to lose more money at the moment to reinvest in a company which history is plenty of uncertainty [Knyphausen-Aufseß and Westphal, 2008].
	Return on investment (capital gain).		

Table 2.1 Different types of suppliers of capital.

Suppliers of money	Criteria for accessing funding sources	Advantages	Disadvantages
<b>Public funding</b> [CONACYT, 2013]	New jobs.	Encourage formalization, and legalization of the business.	Cap budget.
	Investment in productive tools.	Easy access to obtain resources and complementary investment to develop and provide add value.	Sometimes ask for projects already established.
	Focused to help small medium enterprises (SME) as well as entrepreneurial phase.	Professional counseling in fields as technology, legal issues, and finance.	It can generate uncertainty at the end of a presidential cycle.
	Legally constituted company.	Grace period to pay the loan; with no interest on the balance, and some of them offer a preferential rate. Some programs are specialized fund addressed for young people; exclusively for women; or for a specific sectors as indigenous communities.	Corruption in state government drive people away from help.
<b>Venture Capital</b> [Zider, 1998]	Business plan credibility.	VC is able to offer higher funds to a startup than an angel investor.	Risk to lose control over the enterprise due to the demands of the venture capital firms to take an active role in the board of the company
	Business plan with patent technology.	Help is for both in monetary issues, and providing expertise in technical or managerial aspects.	VC is not so easy to access, the majority of times the investment terms are not as good as equity crowdfunding.
	Track record (over previous years).	Venture money is not for long-term, it invests in a company's balance sheet and infrastructure until it reaches a sufficient size.	
	Ability to grow fast and deliver quick ROI.	Money belongs to the company; hence, it is not a loan because the capital returns in form of dividends on shares issued by the venture capital firm or through the sale of a stake [Christofidis and Debande, 2001].	
	Enterprises have to demonstrate its potential to grow up and make money in the long-term.		Risk of investing in a particular industry – and in specific in a SMEs or startups – is high but it is boosted by the potential return translated in an attractive payoff.
	Interested in companies that are involved in technology.		
	Management team quality.		

Table 2.1 Different types of suppliers of capital.

Suppliers of money	Criteria for accessing funding sources	Advantages	Disadvantages
<b>Private Equity</b> [Blackman, 2014]	Companies with strong market position and sustainable competitive advantages.	Help borrowers to keep active and re-evaluate details of the business to maximize the value [Koba, 2013].	Risk to lose management control because of PE firm would be interested to involve in the company.
	Demonstrate strong potential to grow in different ways.		
	Stable and recurring cash flows to have enough cash flow to cover all of debt requirements.	Encourage presence of majority stake and collaborate in the control of the business to generate value from it.	Lose control over key activities such as human resources (hiring or firing personnel), and at the level of business units to set strategies.
	Low capital expenditure requirements.	Useful when a company wants to fuel growth, increase the operation and/or expand its coverage, or recuperate from financial problems.	Inconsistence in the meaning of value due to PE firms have their own concept of value.
	Favorable industry trends.		
Strong management team.			
Possibility to create added value in different areas.		It works better for large.	

Table 2.1 Different types of suppliers of capital.

## **2.6 Example with Kickstarter's categories.**

According to the information available in the website of Kickstarter, at the day of November 10<sup>th</sup> of 2017 they have launched 379,266 and only 134,343 have succeed [Kickstarter statistics, 2017]; that is, 35.4% of efficiency. Perhaps, this is a good percentage taking into account that there are many factors that affect the probability of success, for instance, there are four factors whose association is stronger than others [Vulkan and Fernandez, 2016]:

- The share accumulated in the first week of the campaign.
- The investment goal set by promoters.
- The largest amount pledged by a single backer.
- The number of backers in the campaign.

It was tried to do the comparative table to make the contrast the two of the world-famous platforms as Kickstarter and Indiegogo; however, the last company as a private company, they cannot disclose the information related to the number of projects per category (appendix 1).

In the figure 3.2 it is shown a bubble plot per category where in the axis of abscissas is the success of projects in terms of dollars, in the ordinates is the number of successfully funded projects and the size of the bubble is the rate of success.

Something interesting to view is that the categories as Games, Design and Technology have the highest amount in money of successful projects. While Music and Film & Video are the most successful funded project per number of projects carried out. However, only three categories – Dance, Theater, Comics shown in figure 3.3 – achieve more than 50% of success.

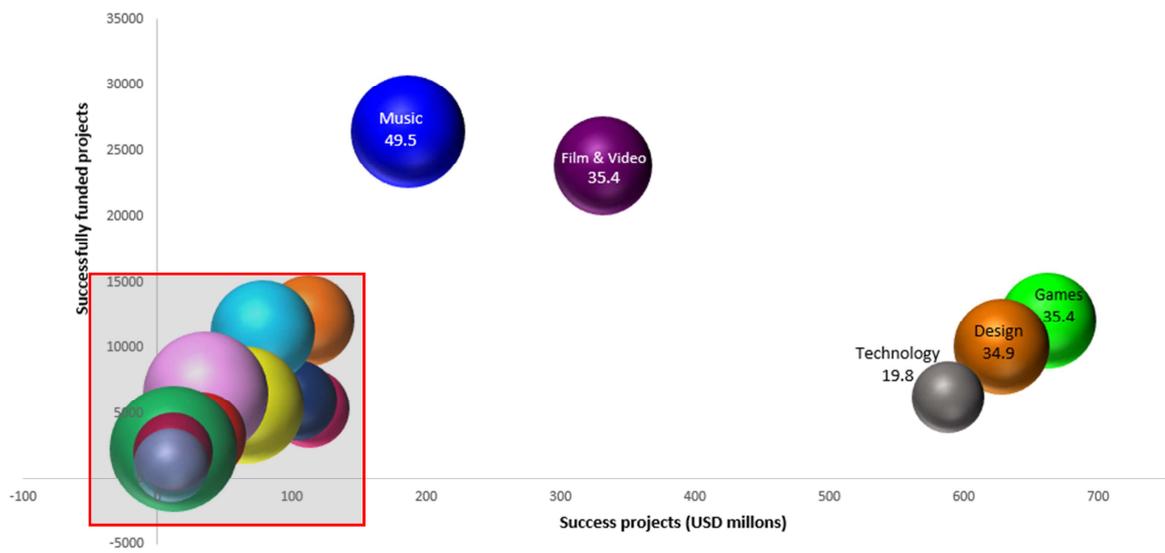


Figure 3.2. Bubble plot of the 15 categories of Kickstarter.

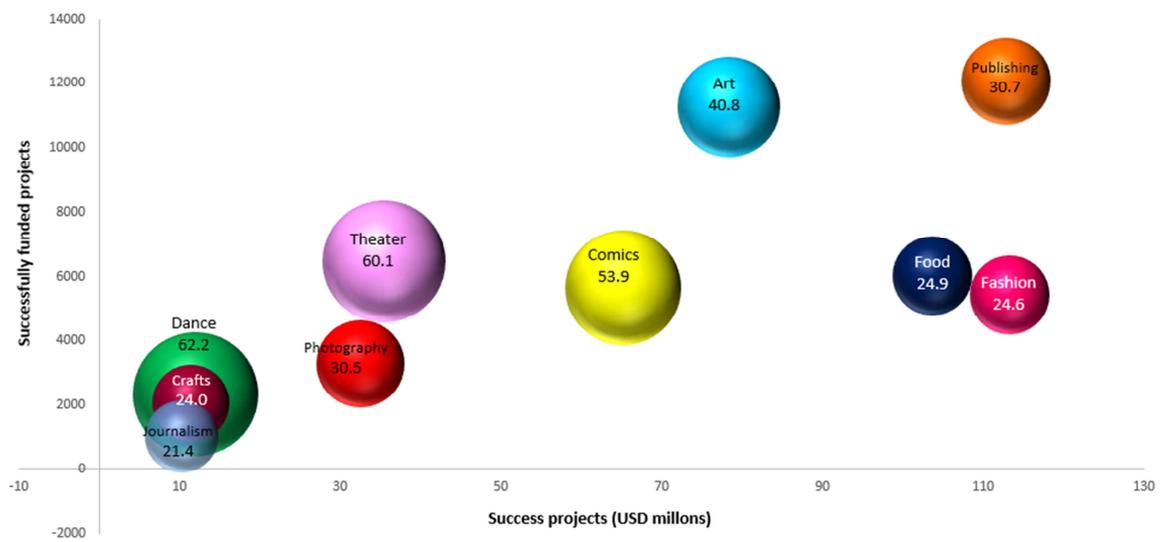


Figure 3.3. Bubble plot of the 15 categories (detail of the red square of figure 3.3).

Crowdfunding instrument has an open the opportunity for artists who are looking for supporting their projects and find success. In that sense crowdfunding has enable a democratization of access to capital markets.

Democratic access is one of the main benefits of this instrument where, from the point of view of entrepreneur, any person with an idea/project can raise money from many people who lives in any place around the world with internet access.

In a similar way, from the point of view of an individual, who has access and can commit funding to new projects on a scale of their choosing [Harrison, 2013]. In the case of arts, there are several artist whose projects probably are too small or too strange (unconventional) or simply because they just need a little help to achieve enough resources to fund their project.

In the table 3.1 it is shown the 15 categories belonging to Kickstarter – with data consulted in November 9<sup>th</sup>, 2017 – and it is sorted from highest to lowest according to the number of projects. The last is in order to apply the Pareto principle, or 80-20 rule, to find the most relevant categories. In the next column is the amount in terms of money for each category and the last column is the percentage of success rate. That is, the percentage of projects successfully performed.

Category	Num. project	Pareto %	Million USD	Success Rate %
1 Music	26,473	19.7	186	49.5
2 Film & video	23,843	37.5	332	37.2
3 Games	12,077	46.5	663	35.4
4 Publishing	12,067	55.5	113	30.7
5 Art	11,260	63.8	78	40.8
6 Design	10,124	71.4	628	34.9
7 Theater	6,450	76.2	35	60.1
8 Technology	6,273	80.9	588	19.8
9 Food	6,008	85.3	104	24.9
10 Comics	5,645	89.5	65	53.9
11 Fashion	5,414	93.6	113	24.6
12 Photography	3,266	96.0	33	30.5
13 Dance	2,318	97.7	12	62.2
14 Crafts	2,049	99.2	11	24.0
15 Journalism	1,008	100.0	10	21.4
<b>TOTAL</b>	<b>134,275</b>		<b>2,972</b>	<b>35.87</b>

Table 3.1. Successful funded projects.

After checking the information of the table 3.1, it is shown that, from 15 categories in Kickstarter, eight categories (representing the 53% of the whole categories) are the 80% of the

total successful projects in terms of number of projects. Here is important to outstand that from these 8 categories, 5 belong to artistic activities as Music, Film & Video, Publishing, Art and Theater. The remaining 2 artistic activities, Photography and Dance are in the place 12 and 13.

In order to do a little more in deep in the analysis of the information of the table 3.2, the 15 categories were split up in two main sections: from one side were enclosed in cluster all the categories related to artistic activities, taking into account the classification of the main fine arts [Manjarrés, 1859].

Then, in the sections of “Artistic Categories” are: Music, Fil & Video, Publishing, Art, Theater, Photography and Dance. While another section remains Games, Design, Technology, Food, Comics, Fashion, Crafts and Journalism like “Other Categories”.

<b>Artistic Categories</b>	<b>Num. project</b>	<b>Million USD</b>	<b>Success Rate %</b>
1 Music	26,473	186	49.5
2 Film & video	23,843	332	37.2
4 Publishing	12,067	113	30.7
5 Art	11,260	78	40.8
7 Theater	6,450	35	60.1
12 Photography	3,266	33	30.5
13 Dance	2,318	12	62.2
<b>TOTAL</b>	<b>85,677</b>	<b>789</b>	<b>40.9</b>

Table 3.2. “Artistic” categories.

<b>Other Categories</b>	<b>Num. project</b>	<b>Million USD</b>	<b>Success Rate %</b>
3 Games	12,077	663	35.4
6 Design	10,124	628	34.9
8 Technology	6,273	588	19.8
9 Food	6,008	104	24.9
10 Comics	5,645	65	53.9
11 Fashion	5,414	113	24.6
14 Crafts	2,049	11	24.0
15 Journalism	1,008	10	21.4
<b>TOTAL</b>	<b>48,598</b>	<b>2,183</b>	<b>29.5</b>

Table 3.3. “Other” categories.

In the table 3.2 and 3.3 is possible to make the comparison between “Artistic Categories” and “Other Categories” where the former sections make up around the 80% of participation of the total number of successful projects. Besides, artistic categories confirm the 63% of the total successful funded projects, more than a half of the total number of projects. In spite of “Artistic categories” have a high participation in terms of number of projects, it presents a small number of funds in contrast to “Other categories”. In overall, the classification of “artistic categories” are more successful than “Other categories” because the former have around 41% of success while the later 29.5%.

Therefore, it is possible to affirm that, for the backers who participate in Kickstarter are more interested in artistic activities because crowdfunding brings the chance not only to democratize both fund raising by entrepreneurs/business and the opportunity to invest by individuals, but also as a complement for educational organizations or institutions that promote arts.

What it is true, crowdfunding is strongly affected by geography due to countries with high technological development, legal framework encouraging the usage of platforms, or the proximity with community as family and friends, and later the expansion by friends of a friends and social media. Also, the influence exerted by culture – consequently by the community – due to the wisdom of the crowd that take a relevant role to fund money.

Technological development and trends can encourage the usage of alternative instruments as crowdfunding; helping at the same time cultural shifts. While regulations to provide security for both parties the fundraisers and funders; and in parallel, they must be forward-thinking regulations able to create an atmosphere of confidence and boost the increment in the operation of this alternative finance instrument. This factors will be explained in the next chapter describing the crowdfunding atmosphere.

### **3. CROWDFUNDING ECOSYSTEM.**

As it was describe at the end of the chapter 3, crowdfunding ecosystem encompasses the geography, community, technological basis, and legal framework. There are factors affecting both funders and fundraisers who need a supportive ecosystem and enabling factors. Besides the regulations should be formulated in a forward-thinking way to facilitate the usage, operational growth and ensure the security. While technological solutions, and cultures can adapt to this new investment instrument.

Several times a project cannot collect enough money from its community due to several reasons as not everybody is inform about the project, or not everybody is interested in participate; maybe it is because the willingness to invest is not enough. Whatever being the case, the entrepreneur needs to look for in other places (communities).

According to the World Bank in the Crowdfunding's Potential for the Developing World report [World Bank, 2013], make mention of the key factors like geography, culture, technological development and regulations; that in conjunction they have facilitated crowdfunding in developed countries; however, this factors are as well as relevant for any country.

From the side of the community, it must encourage the collaboration with different entrepreneurial events, incubators, accelerators, universities and co-working spaces in order to create a channel of opportunity and oversight. Besides, a strong social media market penetration and internet usage would facilitate to take advantage demographic and technology trends to lead collaboration and cultural shifts.

From the perspective of regulations, besides it should be forward-thinking, it must leverages the transparency, speed, and scale that advances in technology and the internet can deliver to early-stage funding marketplaces. Also it must regulate online marketplace to facilitate capital formation while providing prudent investor protections through education and training.

In the figure 3.1 (based on information from the World Bank in the Crowdfunding's Potential for the Developing World report [World Bank, 2013]) it is shown, in an overall way, the crowdfunding ecosystem where a community of individuals – once they decide to participate

in a project – interact direct or indirectly with other factors that make possible the operation of crowdfunding.

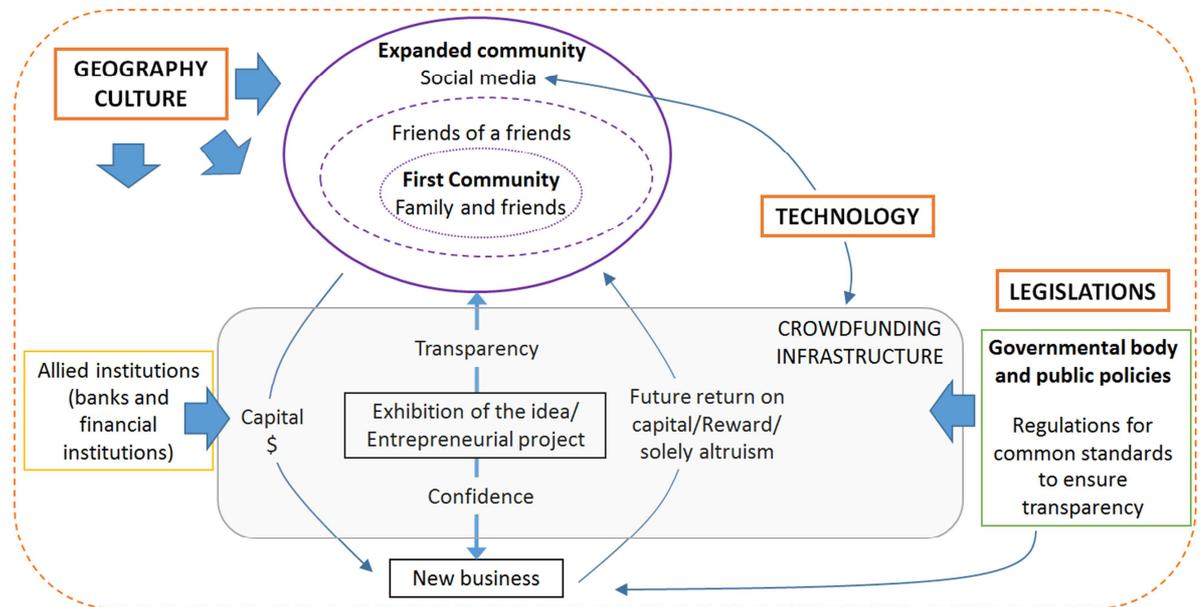


Figure 3.1. Crowdfunding ecosystem.

In the next points it will be explained the details related to geography, community, technological basis, legal framework and a brief explanation about the reasons which encourage people to participate in crowdfunding, and finally it is shown an example over four Italian platforms to illustrate geography and cultural influence in the participation.

### 3.1 Geography

The aforementioned platforms of Kickstarter and Indiegogo are two well-known platforms that it is possible to use them everywhere; moreover, there are many other platforms around the world where it is possible to find similarities and remarkable differences among them.

According to a study carried out by The Statistic Portal [Statista, 2014] in 2014 there were 1,250 crowdfunding platforms worldwide, being Europe the leader in the sector with 48% of participation (figure 3.2). Nonetheless, the total figure can be bias due to some issues to obtain correct information from Chinese crowdfunding platforms because of language translation [CIR, 2012].

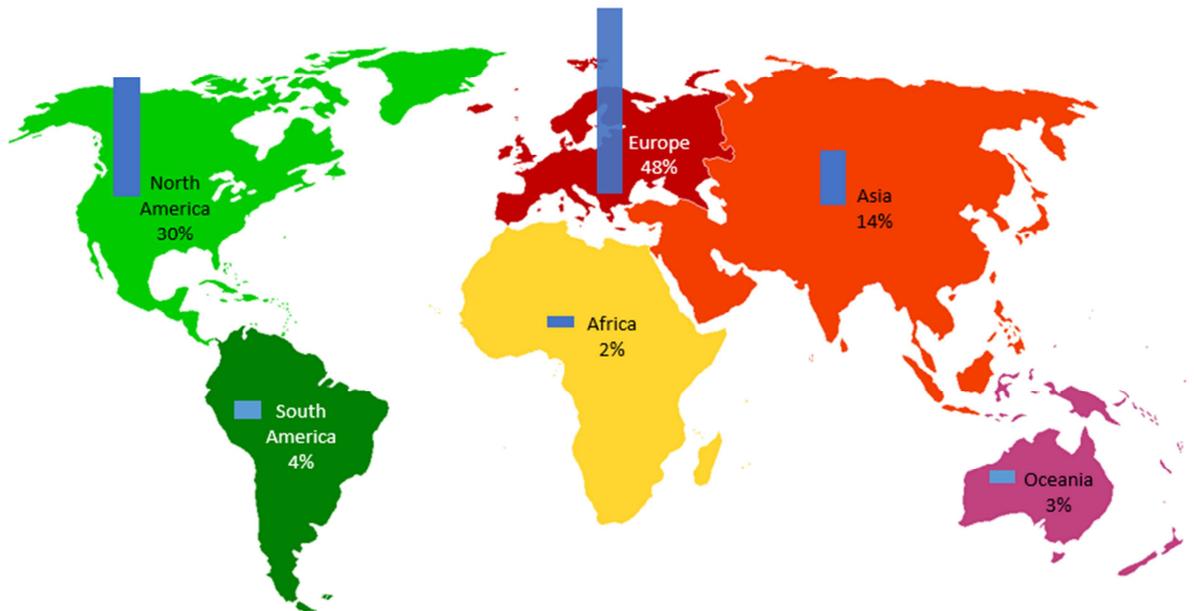


Figure 3.2. Number of crowdfunding platforms around the world in 2014.

The usage of each type of crowdfunding rely on some characteristics as geography, type of product, purpose of the project and amount of raised money. For instance, in the case of digital goods like software development, films and music the most effective models are equity crowdfunding and lending-based crowdfunding because they are able to provide financial return.

Furthermore, categories related to digital goods usually raised largest sum of money per campaign. Meanwhile, donation-based and reward-based crowdfunding for cause-based campaigns that appeal to funders' personal beliefs and passions performs best, for example environment and wild life causes [CIR, 2012].

### 3.1.1 World Geography

In a study carried out by University of Cambridge and other institutions shown different characteristics of the alternative finance industry around the world. They carried out their analysis by continent in the case of the Americas and Europe. While, for the rest of the world they made groups separating the Middle-East from Asia and adding it to Africa; and finally, Oceania was included in Asia.

An important issue in this research is that they get different numbers contrasting the information of Crowdfunding Industry Report by Crowdsourcing.org because in the study of University of Cambridge went in detail to review Asian platforms and data review was checked in overall way and not as a sample. Both results are shown as illustrative purpose.

In the table 3.1 it is shown the overall numbers of the alternative finance market volume through internet has been constantly rising in the last years around the world. It is important to highlight that the purpose of this table is illustrating the incremental participation around the world in the online alternative finance. That is, this figures include many other financial instrument as invoice trading, real estate, debt-base securities, balance sheet business lending and profit sharing. All of them have similar characteristics to considerate them in the taxonomy of crowdfunding; nevertheless, as it was mentioned in the chapter III, it will follow the most common typology according to the Crowdfunding Industry Report by Crowdsourcing.org [CIR, 2012].

An important aspect in the same table 3.1 is the increments year versus last year are, in the majority of times, more than 100% in all regions. The higher increment is the region compound by Asia (excluding Middle East) and Oceania [UC Asia, 2016], where the compound annual growth (CAGR) rate is 184%, followed by The Americas with 118% [UC America-a, 2017]. However, both Asia-Oceania and the Americas have a big growth due to the development in China and the United States (USA) respectively.

While in Europe the growing has been more homogeneous among countries. Despite the United Kingdom (UK) is the leader in this continent, it is in a lesser degree in comparison to China and USA. The increment has been due to the increasing acceptance of equity crowdfunding, wherein it has an increment of 91.5% from 2014 to 2015 and an average annual growth rate of 82.2%. Nonetheless, lending-based, reward-based and donation-based have had a slow increment with an average three-year growth rate of 71.9%, 66% and 41.4% respectively [UC Europe, 2016].

Finally, the region conformed by Africa and Middle-East presents a slow development in comparison to other regions due to several reasons as poor technological infrastructure, political problems, health issues, and so forth [UC Africa, 2017].

On the other hand, Africa has good examples of encouraging population to use these kind of financial instrument through public policies, for example Kenya (3<sup>rd</sup> place in participation in this region in terms of money) allows the usage of a technological platform and a web to make possible a financial inclusion among people. Since 2007 Kenya have a payment system through mobile phone, this mobile-money system is called M-PESA that in 2015 was used by 17 million of Kenyans [TS, 2015].

Continent/Region	Year			CAGR %
	2013	2014	2015	
Asia-Oceania	4,130	20,290	94,610	184.0
The America	3,240	9,650	33,580	118.0
Europe	1,130	2,830	5,430	68.7
Africa-Middle East	68	128	203	44.3
<b>TOTAL</b>	<b>8,568</b>	<b>32,898</b>	<b>133,823</b>	<b>150.0</b>

Table 3.1. Overall figures in millions of euros of alternative finance industry per continent.

To go a little bit more in detail, in the table 3.2 is possible to see more detail the clear example of the domination by geography, where the participation that some countries make in the total amount of alternative finance of crowdfunding in both monetary contribution and concentration of platform headquarters.

For instance, both USA and China have almost a total domination over the Americas and Asia-Oceania (excluding Middle East from Asia). From the side of China, it has the 99.1% of participation in terms of money and a 74.8% in terms of number of platforms in the continent. In that sense, China have absolute dominant. The lending-based type is the most common among people from Asia, and the average per platform in the continent is € 158.3 million.

Meanwhile, in the Americas, USA have 98.8% of monetary contribution and 69.3% of participation of the total number of platforms. Similarly to Asia, the lending-based has been accounting the largest participation among alternative finance of crowdfunding (approx. 93% from the whole of typologies). Nonetheless, leaving aside the data of USA, it happens a slight difference in preferences because the Americas, excluding USA, presents more balance among donation, reward and lending. In the case of lending-based have 45% of participation; and donation and reward are more or less in the same way of preference with 29% and 22% of participation. The average of contribution per platform in the whole continent is € 72.5 million.

In a similar way, but in a lesser degree, the UK dominates in terms monetary contribution through crowdfunding Europe with a 72.5% of participation. On the other hand, the UK only have 34.4% of the total crowdfunding platforms in Europe. Once again, it is worthy to make an analysis excluding the UK because as a whole continent the preference for using lending-based is 76.6% – clearly influence by the UK – but Europe (excluding the UK) shows a balance between reward (15%) and equity (19%). In specific, equity-based has been growing in the last years. From 2013 to 2015 had an annual average growth rate of 82.2% and steady growing in contrast to lending, reward and donation. The average input per platform in Europe is € 12.4 million.

Finally, the development in Africa has been slow in comparison to the other regions/continents. An important fact is 90% of online alternative finance was originated from platforms headquartered outside of the continent [UC Africa, 2017]. Equity-based dominates the preferences of this zone with 74.8% of participation and the average input per platform in this zone is € 1.8 million.

In spite of South Africa and Israel have an important participation in the zone of Africa-Middle East, it is not as dominant as China, USA or UK. These three leader countries have a good combination of technology development, public policies and culture to encourage the usage of this kind of alternative finance.

Continent / Zone	Millions of Euros during 2015										No.			
	Donation	%	Reward	%	Lending	%	Equity	%	TOTAL	%	Platforms	%	Countries	%
Asia-Oceania (without China)	21	14.8	68	8.9	573	0.7	54	6.3	715	0.9	127	25.2	16	94.1
China	119	85.2	697	91.1	77,339	99.3	798	93.7	78,953	99.1	376	74.8	1	5.9
<b>Asia-Pacific</b>	<b>140</b>	<b>100.0</b>	<b>765</b>	<b>100.0</b>	<b>77,911</b>	<b>100.0</b>	<b>852</b>	<b>100.0</b>	<b>79,668</b>	<b>100.0</b>	<b>503</b>	<b>100.0</b>	<b>17</b>	<b>100.0</b>
Americas (without USA)	64	35.2	48	8.7	100	0.6	6	1.2	218	1.2	79	30.7	10	90.9
United States	117	64.8	505	91.3	17,304	99.4	496	98.8	18,423	98.8	178	69.3	1	9.1
<b>The Americas</b>	<b>181</b>	<b>100.0</b>	<b>553</b>	<b>100.0</b>	<b>17,404</b>	<b>100.0</b>	<b>502</b>	<b>100.0</b>	<b>18,640</b>	<b>100.0</b>	<b>257</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>
Europe (without UK)	31	69.6	143	71.8	580	22.4	175	32.0	928	27.5	179	65.6	28	87.5
United Kingdom	13	30.4	56	28.2	2,005	77.6	372	68.0	2,446	72.5	94	34.4	4	12.5
<b>Europe</b>	<b>44</b>	<b>100.0</b>	<b>199</b>	<b>100.0</b>	<b>2,585</b>	<b>100.0</b>	<b>547</b>	<b>100.0</b>	<b>3,374</b>	<b>100.0</b>	<b>273</b>	<b>100.0</b>	<b>32</b>	<b>100.0</b>
<b>Africa-Middle East</b>	<b>6</b>		<b>9</b>		<b>15</b>		<b>89</b>		<b>120</b>		<b>66</b>		<b>58</b>	
<b>TOTAL</b>	<b>371</b>		<b>1,526</b>		<b>97,915</b>		<b>1,990</b>		<b>101,802</b>		<b>1,099</b>		<b>118</b>	

Table 3.2. Distribution per continent and alternative finance model in 2015.

It is important to show the effect that, in the place where there are a high quantity of platforms is the place where there are the highest number of backers, one reason to describe this behavior is because in collective cultures exist the feelings to belong and contribute as a part

of a society. This behavior is different among countries, for example Chinese culture are more reciprocals than in the United States.

### 3.1.2 American Geography

In a study carried out by Lin and Viswanathan [Lin and Viswanathan, 2013] establish that in the crowdfunding market exist a home bias. This is a phenomenon wherein agents have a high probability to conduct transactions among parties in the same geographic zone or geographically closer among them.

This idea can be boosted by the figure 4.3, where an image of The United States is displaying, as an example, a map of the United States where it is highlighted the states who have the greatest number of headquarter platforms (the information was taken from The Americas Alternative Finance Industry Report to make the map [UC America-b, 2017]).

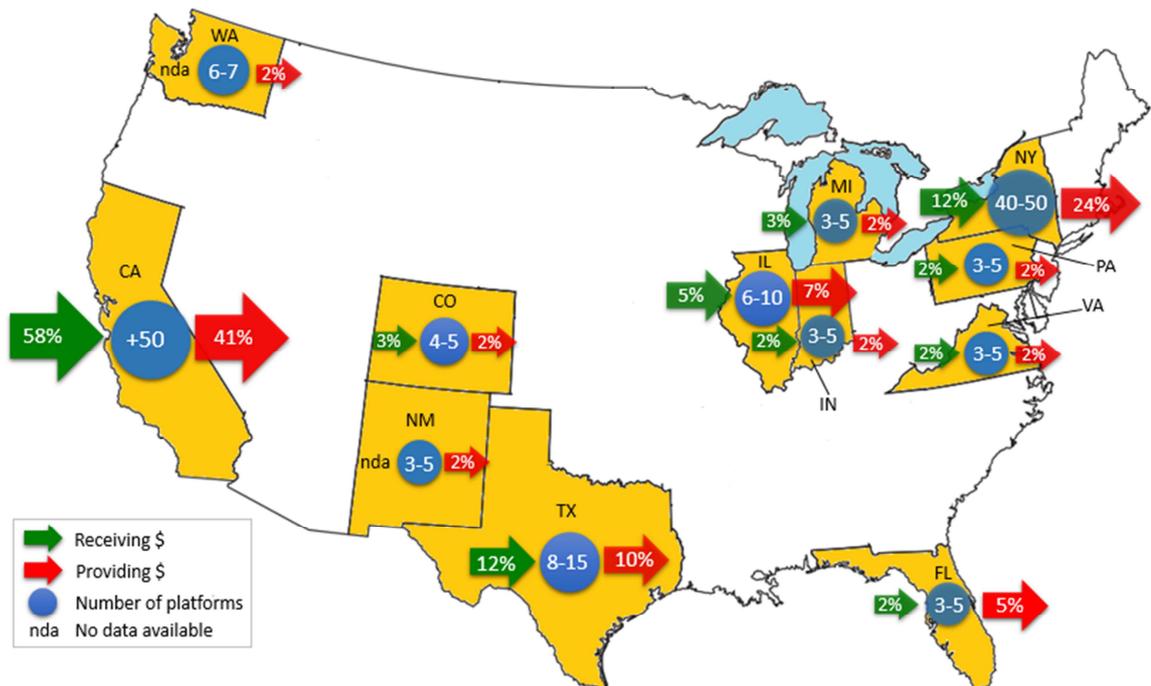


Figure 4.3. Geographical distribution of platform and finance fund in the United States.

Only 12 states concentrate the highest number of headquarters and at the same time, they are the states with high alternative finance activity. From these states, California is the one with

more platforms and at the same time is the state which both receive and provide more money through crowdfunding platforms. Also it is possible to appreciate a behavior where the higher is the number of platforms, the higher is the percentage of both receiving and providing money; probably an atypical result could be the finance activity in the state of New York where the percentage of providing fund is twice the fund receiving

Another interesting thing is the concentration is by zone: the Pacific coast houses the majority of platforms in the U.S., secondly with a considerable number of headquarter platforms is the Atlantic coast, and finally with a representative quantity are the Center-Southwest and the Midwest zone.

To recap, geography crowdfunding have both advantages and disadvantages. Distance effect rely on diverse kind of factors because it can be from natural issues such as location - and consequently increasing shipping cost - until political and regulatory issues.

1. It is related to technological progress. The places with lower technological progress, the less is the participation [Disdier and Head, 2008]. With some exceptions as the aforementioned country Kenya.
2. At the same time, technology developments helps to overcome constraints and barriers; approaching people and communicating new ideas.
3. The overall effect of time as a trade barrier shows up both in the country selection effect and in the modal choice decision such as specific exporting country [Hummels, 2001].
4. The distance becomes a relevant matter due to lack of familiarity and/or existing cultural differences [Grossman, 1998].
5. Friends and family becomes in a relevant fact in online and offline to generate the first investments and advertisement word-of-mouth.

Ideally, people in a country should be engage with this kind of social media in order to familiarize with activities related to crowdfunding. In this way, is the best option to allow flourishing the wisdom of crowds who participate in activities that were previously exclusive to certain sector of the society. **If most investors are in fact friends (or friends of a friend) of the borrower, the observed home bias is just a reflection of investors' private information about the borrowers [Lin and Viswanathan, 2013].**

From a cultural point of view, the responsibility lies with private sector (since all platforms belong to this sector) to create correct channels to diffuse the information about the usage and the scope of crowdfunding. In addition to the benefits for the economy.

### **3. 2 Technological basis.**

Nowadays the access to internet is not a luxury, and from a necessity, it has become in a human right. According to the special rapporteur of United Nations Frank La Rue, internet has become a human right because is one of the most powerful instruments of the 21<sup>st</sup> century for increasing transparency in the conduct of the powerful, access to information, and for facilitating active citizen participation in building democratic societies [UN, 2011].

However, not all the countries has done the subsequent phase in actively addressing problems, in order to include laws pertaining to freedom of expression and how those rights can be abused to spread violence, terrorist ideals, and harassment

Social network performs a vital role in the business because is the best channel to boost the communication with people (family, friends, acquaintances, or friends of your friends). It is the best channel to start the advertisement in word-of-mouth. Due to their popularity it has been created many different applications of social networks, and each of them with specific characteristics that allow the interaction to many other users.

The big advantage is that social networks eliminate the existing distance among users, having as a consequence the proximity of a big mass who participate actively in the network.

Just to exemplify the scope of Facebook, more than a quarter of the world population (around two billion of users) log at least one time per month. Going in detail to know what happen in internet every minute the figure 4.4 show us the scale of e-commerce, digital marketing and the scope that social network can reach on internet in only sixty seconds [Desjardins, 2017].

<b>900 K</b>		<b>13 K</b>		<b>3.5 M</b>	
Login in Facebook		New mobile users		Google search queries	
<b>6 M</b>	<b>4.1 M</b>	<b>16 M</b>	<b>20 M</b>	<b>6</b>	<b>47 K</b>
Watched profiles in Facebook	YouTube videos viewed	Text Messages	Watched photographs	New articles published in Wikipedia	Applications Downloaded
<b>452 K</b>	<b>30</b>	<b>639 K</b>	<b>15 K</b>	<b>40 K</b>	<b>135</b>
New Twitter accounts	Hours of upload video	Gigabytes of transfer data	GIF's sent via messenger	Hours of music Spotify	Botnet infection
<b>452 K</b>	<b>120</b>	<b>46 K</b>	<b>20</b>	<b>\$ 751 K</b>	<b>50</b>
Tweets send	New LinkedIn accounts	Instagram Post uploaded	New victims of phishing	Spent online	Amazon Echo voice-first devices shipped
	<b>+ 1 K</b>		<b>156 M</b>		<b>1.8 M</b>
	Users research in LinkedIn		Emails sent		Snaps created

Figure 4.4. Overall picture of what happens in internet in one minute.

As a support to make the open call of the campaign, the use of social networks take relevant action because through them, it is possible to strength the project's marketing to raise money as soon as possible. As it is seen in the figure 4.4 the scope of Facebook, Twitter, Instagram, and YouTube are important to disseminate the information about the project through videos, trending hashtags, and attractive photos of the product/service that an entrepreneur is offering. At the end, the more adopters have the project, the higher the effect of word-of-mouth will be.

### 3.2.1 Needs of cooperation.

According to the World Bank in their report [World Bank, 2013], nowadays technology development has been decreasing its cost and increasing everywhere, not only in developed countries, but also in developing countries. Consequently, tools and devices are more available for people at affordable prices; hence, technology should make easier the access for funders and fundraisers to use alternative finance platforms like crowdfunding.

For instance, the multi-mentioned example Kenya, where in spite of less than a half of the total population have access to internet, they have achieved a financial inclusion among inhabitants through technological platforms, like M-PESA, creating a link between them and intermediaries. In that sense, it is possible to think that this country is developing a strategy to

jump certain technological development and financial stages to leapfrog the developed world, in both a regulatory and economic sense, by creating frameworks for early-stage finance that facilitate entrepreneurship, the fostering of innovative technology enterprises and the emergence of new competitive industries [World Bank, 2013].

Here the technology must play a key role eliminating the problems that affect any trade like distance and lack of transparency; and at the same time it must boost the clear communication among users, creating links of trust based on transparency. In one hand, it seems hard because technology development has been ambivalent. In one hand, it makes easier people's life, a simple example is the quality of today's communication.

On the other hand, it has become more complex the development than before, making hard for a single company to cope with that by itself. The last can lead the creation of an innovation community where it involves different sectors creating groups of cooperation whose main goals are sharing the knowledge and developing technology.

In one side are innovative startups and large companies, another are the suppliers, customers and competitors; in conjunctions with universities and research institutes working to create new solutions and acquire competencies, giving place to the creation of a mechanism called open innovation where there are solvers and thinkers available to provide support. For example, there is a platform (physical or virtual) where several startups, who share solutions, are running; and from which external firms look for solutions [Chesbrough, 2003].

In the figure 4.5 is shown a project launched in PDB, where after doing a correct "creating" of a project where the entrepreneur tells who is he/she, the purpose of his campaign, chronogram of the project, images showing sketches, prototypes or final product; in addition to a video telling his/her story and telling about the project. Furthermore, in the presentation of the project it is allow to enable the links of Facebook and Twitter (indicated in the red circle) to seize the opportunity to diffuse the idea to many other people through these social media.

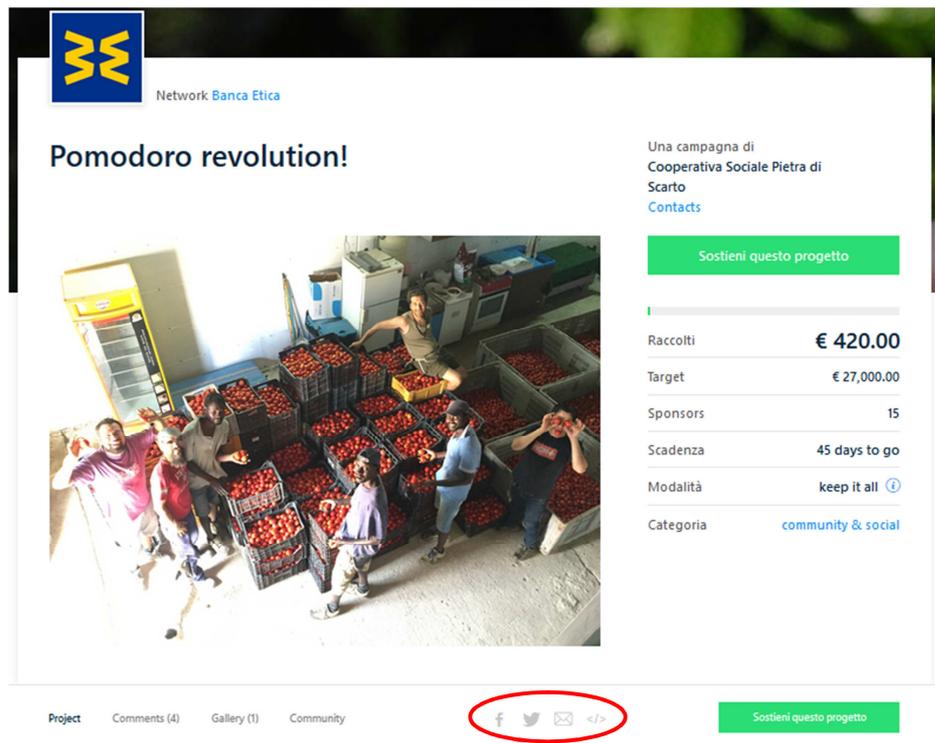


Figure 4.5. Campaign of a project linked to Facebook and Twitter.

Communication and diffusion are the cornerstone to get a successful crowdfunding campaign wherein since the creation and launch, the bloggers contact forums and social networks in order to ensure the diffusion works correctly to achieve a good visualization online.

There are a plenty of platforms around the world and all of them share similar characteristics, the difference rely on the basis on they are focused, and for the performance depends on legislation, regulations and stances that each government takes towards crowdfunding. For example, the UK government is the most progressive with the introduction of requirements for banks to be obliged to offer alternative finance options to clients to whom they refuse loans. Meanwhile, in Belgium the government has taken an active role in launching, operating and financing crowdfunding platforms [CF Hub, 2016].

### 3.2.2 Disrupting the finance and helping new ideas to enter in the market.

When a new technology appears in the world can be considered as radical or disrupting in the industry in a relatively short time. This kind of “appearance” in the market brings as a result

changes in the market, because a radical innovation will lead to products that introduce completely new functions, or a set of performance values that clearly set them apart from their predecessors by breaking established trade-offs [Cantamessa and Montagna, 2016].

This classification bringing as a result that, market leaders may fail behind - sometimes they have to leave the industry - while a new entrant can enter as the big winner to lead the industry. This is the case of funding mechanisms where traditional financial loans have been overtaken by the loans that combine technology as crowdfunding.

Innovations in entrepreneurial finance emerged as a result of imbalances between the supply and demand for capital and as a consequence of improvements in technology [Bruton, Khavul, Siegel and Wright, 2015]. The last, in conjunction to recent changes in technology and regulations stimulates the development of financial alternatives, increasing the flow of capital.

Something interesting is that crowdfunding is an innovative instrument who has disrupt the finance in the way to raise funds; and this “disruptive” platforms are helping to disrupt the market with several new creations that are offered through them. In fact, the majority of the entrepreneurs are looking for selling their product to early adopters, with the purpose to cross the chasm and achieve a big acceptance in the market.

### **3.3 Community basis.**

The majority of crowdfunding platforms provide online community for entrepreneurs and sponsors to share ideas each to another, boosted by the power of social networks. In that sense, it is valid to say that crowdfunding is a co-production or co-creation process wherein the sponsor works closely with the entrepreneur in a cooperative manner and actively participate in the development of the project [Lehner, 2012].

As a primary part of the community are family and friends, that play an important role to collect funds, and they trigger the word-of-mouth campaign with family friends and so on with circles of trust. After that crowdfunding provide the infrastructure to spread the communication of the project among other users (communities)

As a part of the community, the selection process carried out by the crowd, as it was describe in sections above, is perceived as a democratic access to participate either in capital market, and the crowd will thus select the social ideas it deems worthy and needed. In one way, it is good to have the support of a community who are interested to help someone's idea because the "wisdom of crowds"

The idea that large groups of people are collectively smarter than even individual experts when it comes to problem solving, decision making, innovating and predicting [Investopedia WiCo]. In contrast to individual decisions that can be subject to biases.

Some characteristics that help the crowd to be wiser than an individual is that they possess different information (at least for crowdfunding are available many platforms to make comparisons and get an assessment of that comparison); different preferences (motives, values and taste are diverse) and rules. In fact, for some creators exist fear that there is no one to turn to in case of problems. For instance in Kickstarter platform have community guidelines that help as a guide to know what is and what is not allowed.

A potential disadvantage can be when a community owning the project can feel like the owner of the project that they are supporting. This ownership is of the positive, as it can lead to communities creating complimentary products and promotional support [Mollick, 2016]. On the other hand, it can become a source of problems among parties, frictions and in the worst case, it can be a slow death of the project.

The "wisdom of the crowds" as a theoretical concept sounds attractive, but it will not work efficiently for equity crowdfunding by several reasons. That is, a community reach a "wise" decision even with wrong ideas or information. For example, if a group of people inside a community are not specialist, or well-prepare, or at least well-informed; they can achieve an influence of the group until reach a collective "wise" decision.

To avoid this kind of scenarios, crowdfunding supporters rely on three assumptions [Griffin, 2013]:

- 1) Someone will uncover and disclose fraudulent information in business plans.
- 2) Someone will tell the "truth" in order to alert potential investors to avoid problems.

- 3) This “truth” will be read and analyzed by crowdfunding investors, then they will not invest and at the same time they will alert other potential investors.

Nevertheless, when a project would be rejected by experts, it will always have a big opportunity to be accepted by a community; demonstrating that, although it can have disadvantages, at the end the power of the crowd is immense because the crowd can work like an epidemic in the sense that the information needs to be contagious (“virality”), little changes can create great effects, and changes happen in a non-linear way [Gladwell, 2000]. Nonetheless, this point will be developed a little bit more in depth in the next chapter.

### **3.4 Legal framework.**

Public policy performs a vital role in the implementation, adoption, development and the growth of the use of any kind of crowdfunding platform. That is because, ideally, public policy should encourage the usage of this instruments as a part of a modern system to raise money.

At the same time, these regulations must strength the financial sector as an accessible alternative option and ensure protections for the funders (backers) in case of fraud and the security for collectors to receive the amount pledged.

Regulations must aim to achieve a better understanding of how finance can work with this instrument, its objectives and scopes, and the interaction between actors as physical and natural person, and government. And consider the possible hurdles and remove them to achieve the operation.

Normally, jurisdictions recognized different types of crowdfunding, where usually are classify in sponsorship, non-monetary-reward and financial return. This classification is useful to determine the most suitable protection for parties in the sense that, from the side of the backer receive a support of their participation and security that the final destination of the money is the correct culmination of the project.

Moreover, regulations should prevent any act of fraud as tax loss, money laundry, ghost companies, or alteration of invoices and accounting records. Insofar as possible, legal

framework must prevent and, in case of any illegal act, provide protection and the proper sanction.

Regulations should ensure:

- Bankruptcy procedures being not so difficult that entrepreneurs cannot risk the possibility of business failure.
- Provide a support to encourage the usage of the instrument.
- Facilitate its growth through formalization of businesses (consequently an important reduction in the informal economy).
- Expands business opportunity through internet platforms.

At the same time, regulations should consider for the population:

- A correct financial inclusion.
- Accessibility of internet and technology.
- Provide financial education for all social sectors.

### **3.4.1 The JOBS Act**

According to Stemler, he establish that crowdfunding is assisting two groups of users in securing the money and support their need: entrepreneurs trying to turn their ideas into viable businesses and small business owners trying to keep their businesses afloat or get them to grow [Stemler, 2013].

Both parts are exposed to receive an illicit act and both face challenges in financial environment. In order to provide protection and help for companies in the USA, in 2012 was signed into law the Jumpstart Our Business Startups Act – commonly known as JOBS – changing the scene.

The title III of the JOBS Act [JOBS, 2016] added securities act providing an exemption from registration for certain crowdfunding transactions; and under the rules, eligible companies will be allowed to raise capital using regulation crowdfunding through internet platforms and diverse social networks sharing information about the idea, project, or business.

In general terms, this regulation establish the following statements:

- A maximum offering amount per project. The cap to collect is \$ 1,070,000 USD in a period of a year (12 months).
- An individual investor is subject to a limit. The cap of a single investor in a period of 12 months is \$107,000 USD, besides, in the figure 4.6 it is shown in a flux diagram with other considerations in the amount allowed to invest for individual investor over a period of one year:

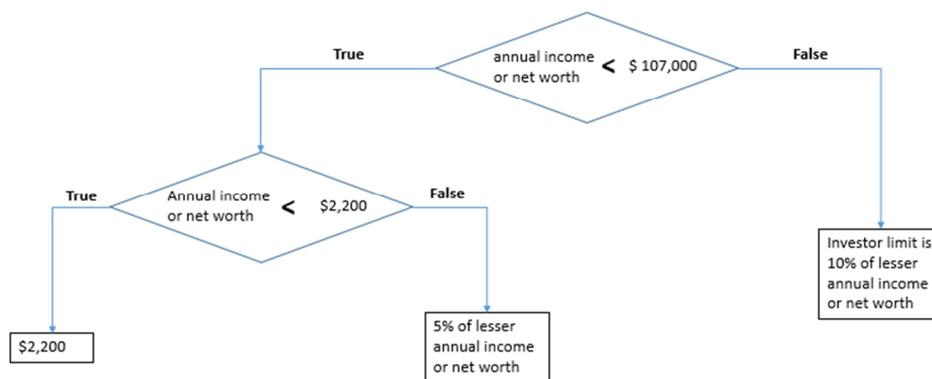


Figure 4.6 Flux diagram of limits per individual investor

- Transactions conducted through an intermediary. The activity of crowdfunding must be conducted through one online platform.
- Eligibility. This refers to the companies who are suitable to use the regulation of crowdfunding as US companies, and so forth.

### 3.4.2 Regulations of crowdfunding in Europe.

As it was said at the beginning of the section of legal framework, regulations are different from one country to another. Moreover, there are no unique approach of the European Commission for crowdfunding regulations for all European Union (EU). In this section is presented a roughly idea based on the documents of Review of Crowdfunding Regulation and International experience in regulating crowdfunding activities [Rusu, 2016 and RCR, 2017].

In addition, many countries implement the European Alternative Investment Fund Managers Directive (AIFMD) but the scope is broad and is applicable when either the alternative investment fund is authorized pursuant to relevant national law in a member state.

Roughly, it is possible to describe both reward-based and donation-based due to their simplicity in operation, these relevant features are:

- Crowdfunding platform operators do not require a formal authorization, if they do not handle directly funds. If a platform manages fund, they will be considered as payment service providers under EU legislation.
- Crowdfunding platform operators have to guarantee that the published projects are riskless of fraud activity.
- In case of donation, the donor must receive a tax deductible receipt
- Crowdfunding projects are subject to personal data protection requirements
- Anti-money laundering and fight against financing of terrorism regulations are applicable for both crowdfunding platforms.
- For reward-based projects, legislation to protect consumer should be applicable, in order to enforce the project's owner to fulfill with the established pledge.

The regulations for lending and equity based are different for every country and the rules change from one to another. For instance, in case of association it is necessary notarial registration and the notification of the association in the correspondent institutions. For example in Italy, equity-model allows to raise equity funds through crowdfunding campaigns only for companies destined for innovative startups and innovative SME's. While for others is address for qualified investors or simply general public.

Another way restriction is by means of cap amount (as it was mentioned in the chapter III), normally the restriction is for equity-based; however there are a different criteria according to the country.

In the table 4.3 it is shown in general terms the maximum limit both per project and individually. This figures are according the regulations of each country where depending on restrictions, crowdfunding can increase the operation in the future or it is stagnant for the moment. [U.S. Securities and Exchange Commission, 2017] and [CF Hub, 2016]

Country	Maximum Total Amount	Considerations	Max. Per Individual	Considerations
Austria	€ 1,500,000	the total amount of the publicly offered alternative finance products does not exceed	€ 5,000	Can be higher if the individual net salary is > € 2,500.
Belgium	< € 100,000	No prospectus obligation	--	No limits on amount per investor.
	€100,000 to €300,000	Exemption from the prospectus obligation	€ 1,000	
	> € 300,000	Prospectus regulations applies	--	
Finland	2,500,000	Over a period of 2 years	€ 100,000	Amount per investor and per offer.
France	€ 1,000,000	The collection of money must be within a period of 7 years.	€ 1,000	Allow for a loan with interest.
			€ 4,000	For a loan without interest.
Germany	< € 2,500,000		€ 10,000	Cap for natural person.
Italy	< € 5,000,000	The collection of money must be within a period of 12 months.	€ 500	Per deal individually.
			€ 1,000	Per year individually.
			€ 5,000	Per deal as company.
			€ 10,000	Per year as company.
Estonia	€ 100,000	Now they are working on regulations to raise at least € 1 M.	--	
Portugal	€ 1,000,000	The collection of money must be within a period of 12 months.	€ 3,000	It does not apply in case of qualified investors.
	< € 5,000,000	It can be if the owner of the project offer a limited to qualified investors only.		

Table 4.3. Examples of maximum limit to fund project per country.

These amounts are referring to a crowdfunding in general terms, inasmuch as for equity-based the situation change depending on jurisdiction and intermediary.

### 3.4.3 Intellectual property.

According to Kickstarter.com, creators reported that Kickstarter afforded them the creative independence; and also backers reported more than 50% of Kickstarter projects to be innovative. An estimated 4,200 patents tied to projects have been filed [KSeconomy, 2016]

Crowdfunding platforms are sources of new concepts, ideas and designs that, if the product achieve a suitable develop, it can fulfill all the requirements to do the registration of patents, trademarks, or copyrights; because there are plenty of product that are non-obvious, they have

industrial applicability, totally new (novelty), related to technology, all of them are original works by the author, or they are distinctive and used in commerce.

The issue in crowdfunding is the disclosure of information, because it is mandatory to upload full information about the project if a person wants to collect money; bringing as a consequence that someone else can steal the idea. Another point against is the impossibility to keep a commercial or trade secret for the same reason of the disclosure in the platform

If an entrepreneur or a project's owner wants to use crowdfunding, it is mandatory to do a strategy to protect his/her IP. A simple answer is to register their work; nevertheless, the high cost of registration is an impediment, and mainly because at early stage in the entrepreneurial phase, the money is absent.

### **3.5 What moves to be part of crowdfunding.**

That is a little wide answer because there is not a unique motivation for backers to participate in a community just giving away money for nothing. According to Cholakova and Clarysse [Cholakova and Clarysse, 2014] there are different theories from psychology supporting the behavior of backers.

From one side is the self-determination theory by [Ryan et al, 2009] where establish that the human as an active organism is motivated by intrinsic and extrinsic motivations. In the former is when an individual engages to an activity as a result of the pleasures and satisfactions it provides. While the latter, are suitable for activities that are performed to obtain highlight outcome.

Both have applicability for crowdfunders purposes because, in one hand, intrinsic motivation people can get engaged either they are interested in the project, for instance love to art, or they are only waiting the final product, for example a new electronic skate board. On the other hand, in extrinsic motivation most people maintain their activities not because they are quite interested in them, they keep in them because in one moment they will gain something in it. This concept is strongly related to sportive activities.

Meanwhile, the mass psychology can explain why in certain cases an individual can be influenced by the community to which belongs. This is supported by Le Bon [Le Bon, 1896] where establish that an individual shows different behavior when is a part of a mass (crowd). In that case, Sigmund Freud [Freud, 1925] said that this is possible because a person can suppress any repression, he/she is one with the mass.

In addition, the “mental contagious” when in a crowd the feelings and acts are easily contagious, in the point that the individual sacrifice their self-interest to assume the collective interest. That attitude is totally against the natural behavior. The last point can be explained from another point of view, for example, from the economical point of view like the theory of collective action or also can be explain from perspective of information cascade. That idea will be developed in the next chapter.

In the specific case of donation-based, it seems easy to explain because it is related to an altruistic behavior; that is, when backers are motivated by a desire to benefit someone other than themselves for that person’s sake [SEP, 2016]. In that way, they contribute in these kind of projects because they generate sympathy, compassion or personal affection. Whatever being the case, backers are helping and contributing for a cause considered by them as a good cause.

On the other hand, reward-based to attract individuals who invest because they “like” and “enjoy” a project or an initiative and want to “support” it [Schwienbacher and Larralde, 2010]. For instance, Sellaband.com is a website that raise money from their fans to record an album; there are hundreds of fans whose desire is to listen their favorite music band playing new hits, then the reward can be just listening their favorite singer on the media.

Whereas equity- based are seen as attracting people who are largely interested in backing projects for a return on their investment [Cholakova and Clarysse, 2014]. Notwithstanding, for equity-based this subject can go deep, inasmuch as the word-of-mouth communication plays an important role when it is something related to financial area.

Here is important to recall the information cascades, where public investors can get information from co-workers (correct or incorrect) and then they decide to invest or not. Social interaction lead to make investments, then if an individual does not interact in a

community in a regularly way, social influence tends to be null (communication effect lies in social issues).

For other authors as Gerber [Gerber et al, 2012] affirm that the main reasons to get engage in crowdfunding are help others, be a part of a community, collect rewards, support a cause as drivers, and distrust of a creator’s use of funds as a deterrent.

In the figure 4.7 presents different types of motivation to support a project and the environment who stimulate them – this illustration is based in the main motivations outlined by Gerber – insofar as backers participate in different typology. For instance, the motivation related to ‘trust of use of funds’ can applied for any kind of typology; whereas ‘financial return’ motivation is exclusive of lending and equity-based.

Besides, in the figure it is shown external variables that can boost or hinder the participation of people in crowdfunding as regulations, social networks, level of confidence and culture.

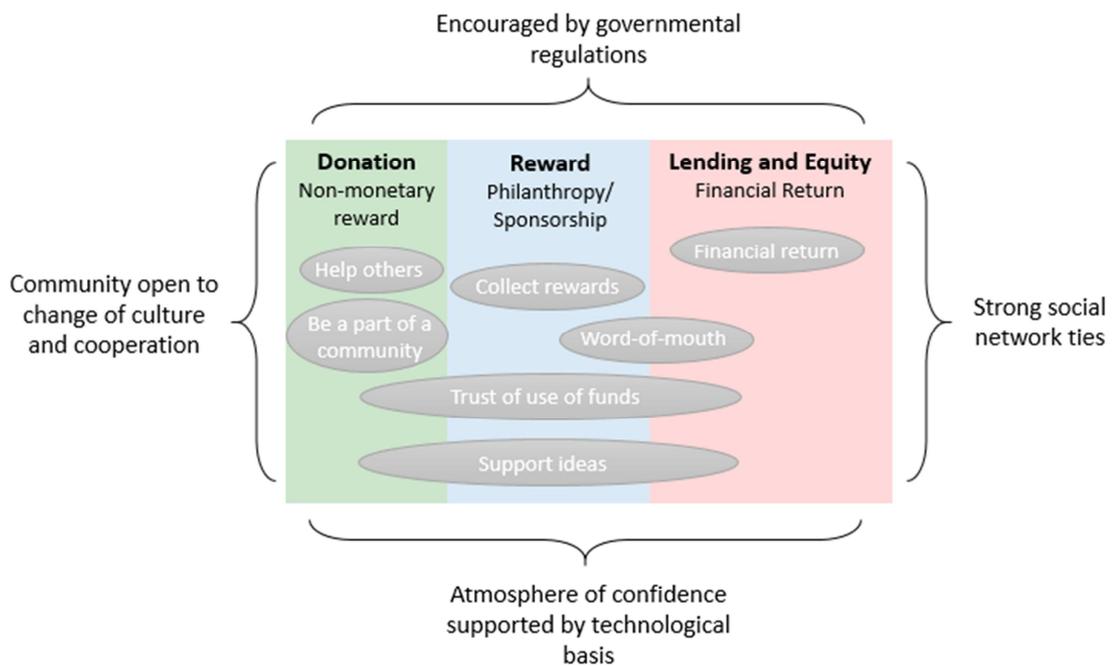


Figure 4.7 Motivation types and relational dimensions.

### 3.6 Example over Italian platforms.

Geography and cultural behavior is not the unique factor that affect the preferences, also there are other factors that have strong influence on that such as taste, technology development, and public policy. For products and services where taste is a relevant factor as music or arts, websites near to the region/state are more visited that far away spots.

According to Blum and Goldfarb [Blum and Goldfarb, 2005] suggest that the distance effect in gravity will persist for plenty of products even if transportation costs, search costs, and other trade barriers associated with distance are reduced to zero. That is because to reduce the distance effect, there needs to be a homogenization of cultures.

In this section it is presented a comparative example among four local platforms in Italy to show the preference of participants (sponsors and sponsored) in crowdfunding platforms; and from that result, showing the presence of a home bias.

The platforms are: *Produzione dal Basso* (PDB), *Rete del Dono* (RD), *DeRev* and *Eppel*. In a briefly way it is mentioned a description of each platform with some relevant characteristics.

*Produzione dal Basso* is a local platform in Italy focused on donation and reward typology. It was founded in 2005 making it one of the first platforms in Europe. The website is available in four languages, and it has a division of 17 categories to classify the projects. It has had around 160K registered users, 2.5K projects and it has raised € 5.8M since its creation until nowadays.

*Rete del Dono* is an Italian platform, and is focused mainly in donation based. It has available two languages (Italian and English) and it has the possibility to classify a project inside any of the 12 categories that they administer. It has almost 1.5K financed projects by 86K donors, raising the figure of € 5.1M since its foundation, in 2011.

*DeRev*. It was founded in 2013 and is focused on donation and reward based, and the website is available only in Italian language. It has only five categories to classify the projects. This platform has raised around € 1.5M as a result of the contribution of 20K people.

*Eppela*. This platform works since 2013 under the scheme of reward and donation based. It is possible to choose two languages to browse in this website. There are 12 categories to classify a project and it has a 65% of successful projects out of the total. It has managed more than 4K funded projects, raised more than € 3.5M co-financing provided by supporters.

The criteria to do the comparison was in terms of Pareto principle – once again, vital few trivial many – to get the most important categories per platform. All of that was in terms of total projects because the purpose is to demonstrate the number of projects generated – for that reason it will not take relevance to check the participation in terms of money – and in that way to show how the preference is influenced by culture and consequently, by geography.

Besides, to avoid problems of inconsistency among categories, they were divided and enclosed five main categories labeled as:

- Art and culture. All categories related to cultural activities as music, art, dance, theater, photography, publishing, films & video, and concerts.
- Altruist. Categories with the purpose of humanitarian and philanthropic activities that imply helping people, wild life, environment, assistance in health issues and social services.
- Creative works and innovation. Activities related to creativity and innovativeness such as video and tabletop games, travels and inquiries, food, fashion, comics, and crafts.
- Technology and entrepreneurship. Categories connected to technology and development, and activities of startup, fundraising, and business.
- Community and social. Categories that imply gathering people to do certain activities as festivals, sports, training, politics, religions, and wellness.

In the table 4.4 it is shown a comparative table with the total projects per platform and the active projects (consulted in 17<sup>th</sup> November, 2017) per category. In the first list belonging to *Produzione dal Basso* (up-left) where in one way, the result was something expected where the 54.7% of the sponsored projects belong to the category of Arts and Culture. The last point is in relation to the democratization of the access for art described in the chapter III. Secondly, the category of Community and Social complement the 80% of the total projects.

Produzione dal Basso			Eppela		
Category	Sponsored Projects	Pareto %	Category	Total Projects	Pareto %
1 Arts and Culture	1,387	54.7	1 Arts and Culture	370	49.3
2 Community and Social	681	81.6	2 Community and Social	99	62.5
3 Creative works and Innovation	285	92.8	3 Altruism	98	75.5
4 Technology and Entrepreneurship	125	97.8	4 Creative works and Innovation	96	88.3
5 Altruism	57	100.0	5 Technology and Entrepreneurship	88	100.0
<b>TOTAL</b>	<b>2,535</b>		<b>TOTAL</b>	<b>751</b>	

Rete del Dono			DeRev		
Category	Sponsored Projects	Pareto %	Category	Sponsored Projects	Pareto %
1 Altruism	1,224	86.4	1 Arts and Culture	80	45.5
2 Community and Social	118	94.7	2 Altruism	49	73.3
3 Arts and Culture	75	100.0	3 Community and Social	35	93.2
4 Technology and Entrepreneurship	DNA		4 Technology and Entrepreneurship	12	100.0
5 Creative works and Innovation	DNA		5 Creative works and Innovation	DNA	
<b>TOTAL</b>	<b>1,417</b>		<b>TOTAL</b>	<b>176</b>	

Table 4.4. Active projects of Italian crowdfunding platforms.

In the top-right part of the table 4.4 appear the information of *Appela*, where the first two categories are the same as PDB: Arts and Culture, and Community and Social. In the third place to complete the 80% of relevant categories is Altruism.

From the side of *Rete del Dono* (bottom-left) only one category makes more than 80% of the total projects, and belongs to Altruism. In second place is the category of Community and Social. For the categories related to Technology and Entrepreneurship, and Creative works and Innovation, the count does not apply (DNA).

Finally, *DeRev* (bottom-right) where in the same way as PDB it has two categories inside the 80% of the total projects with Arts and Culture in the first place, followed by Altruism.

In Italy, Arts and Culture takes importance by heritage and tradition since centuries ago. Moreover, the crowdfunding has democratized the participation in arts looking for the wisdom of crowds; and also it has been a complement to any other ways of support; however, the activities related to Community and Social takes relevance where despite the other three local platforms have available the option to create a project linked to, for instance Technology and Entrepreneurship, Italian people have a preference to search projects related to Community and Social activities.

Actions in pro to the community and altruism activities can be made in any other platforms in Europe or around the world as Kapipal or Indiegogo, but the geography is a relevant factor where distance has a negative impact in this kind of projects. In one way, it seems easy to explain because people do not trust their money in everywhere, but the presence of home bias have some explanation in emotional reasons.

In that sense, it is not so easy to get confidence on community and social projects whose realization is far from the place where a potential donor lives. Then, a potential donor can feel more confidence on projects that are easier to follow it in order to give the money. For example, there are many projects addressed to provide help to Africa.

Nevertheless, despite there are several platforms in Africa, people trust more in local platforms – consequently local projects – to give the money “in local way” to provide help from their local platform to Africa.

While it is true that the usage of modern means of payment/investment are more common in developed countries due to the technological development and feasibility to cashless to buy products and services; not all rely on the level of current economic development.

There are some exceptions of emerging economies wherein it is possible to find a high usage of not only crowdfunding platforms but also there are cashless countries. This fact is probably encouraged by strong public policy and legal regulations that protect the users from fraud, theft or extortion.

## **4. ENVIROMENT OF EQUITY CROWDFUNDING AND INFORMATION CASCADES.**

As it was describe in former chapters, equity based crowdfunding is the case where a person is allowed to invest in a startup in exchange for equity (shares) or buys a percentage of that company with expectations of that company increase its value over time in order to get both her money back and get a profit.

Also is the most difficult because involves more concepts and transactions than other types of crowdfunding. Belleflamme, Lambert and Schwienbacher defined as a model in which crowdfunders receive a financial compensation (e.g. equity, revenue, and profit-share arrangements) [Belleflamme, Lambert and Schwienbacher, 2013].

### **4.1 How it works.**

For a project's creator, there are basic guidelines close similar to any other type of crowdfunding, of course, with remarkable differences. According to Vulkan, Åstebro and Fernandez [Vulkan, Åstebro and Fernandez, 2016] the differences that presents this type from the typical donation-based or reward-based are basically:

- A higher average amount pledged. In 2015 Europe register an average fundraise €459,000 (excluding the UK) it was 400% more than lending based; and the average number of participants was 143.
- Higher average campaign goal, steadily increasing over time and lately approaching the size of first round investments for VCs
- The existence of pre-money valuation of each of the projects. It is necessary to do the valuation of the business if a creator wants to upload her project in any platform.
- A clear goal of the backers to obtain a positive monetary return on their investment. Indeed, that is the main goal of the participants under this scheme.
- The contracts associated with equity funding have been considerably more complicated than other types of funding.
- The due diligence process is often extensive.

- The levels of investments have been so high that there is a strong preference for funders to intimately know the entrepreneur and their business.

The aforementioned considerations to submit a project in a crowdfunding platform as: minimum age, residence, empowered and so forth; and it does not have to be against moral rules or being considered harmful for third parties like treatments against diseases, sexual content, gambling, contests, raffles, drugs, weapons, etc.; in several equity-based platforms are not allowed projects related to theatre or cinematography. All of them remains in the same way for any equity-based platform; in addition to any other remarkable differences that will be explained in the development of this chapter.

In order to describe the main characteristics of the process to run a project in an equity based platform, the description was based on the guideline on the British platform Crowdcube.com [Crowdcube1, 2018], leader company in the industry of equity based platforms [Crowdcube2, 2018].

In the equity based ecosystem the role of the platforms become more relevant because they have to work in order to ensure that the projects/companies who participate, acts with due diligence, ensuring that all the information is fair and suitable for a community of investors whose purpose is to invest in projects in a safety way. Moreover, the platform is the responsible to issue share certificates, do the registration of the investors, and provide legal support and the list of investors to the creator of the project.

Finally, the relation that exist between the investor and creator is a medium to long-term (depending on the nature of the project) as a result of the expected growth of the business, and return on capital. In that sense, it is possible to affirm that the equity based encourage not only the participation but also the permanence of investor to boost the growing of a business.

Besides, regulatory bodies have more participation due to the importance in the regulation of activities to provide transparency, protection for parties, and mitigation of risks. In fact, some governments has been availing this mechanism in order to fuel SME's

In the figure # (based on information from the World Bank in the Crowdfunding's Potential for the Developing World report [World Bank, 2013]) is shown a summary of the main actors

and its relations among them in equity based, and sections later will be explained the main characteristics of equity crowdfunding related to investor and creator.

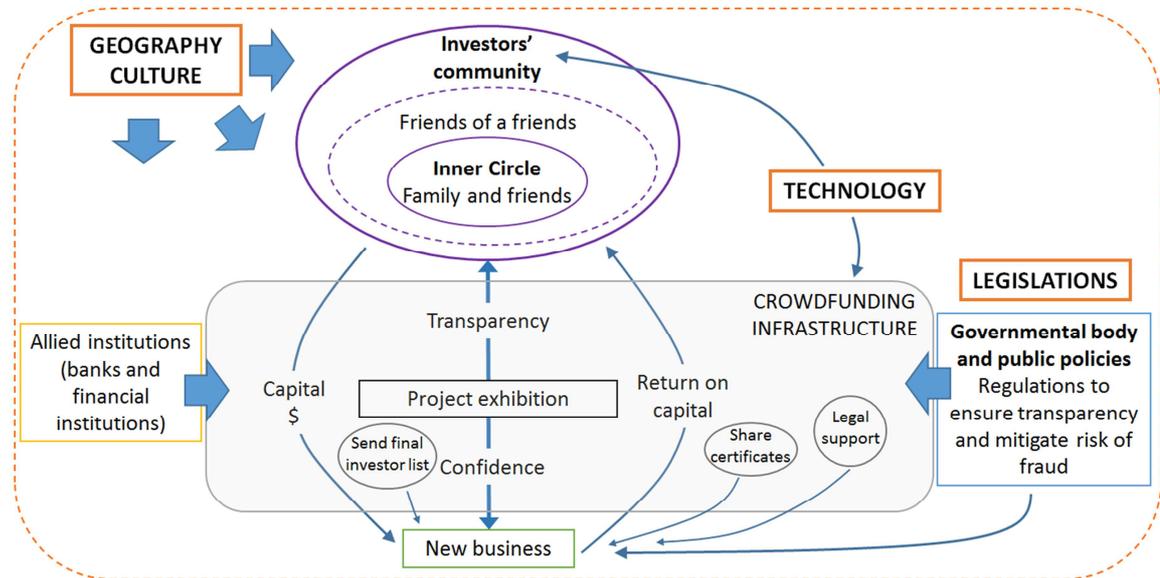


Figure #. Equity Crowdfunding Ecosystem

#### 4.1.2 Creator of a project (entrepreneurial part).

The creator of the project must send the application to an equity-based platform, and the team who work in that platform have the obligation to assess the project to know if the pitch is suitable for investors. Moreover, the company must be registered in the same country as the equity-based platform; however, there are some exceptions for companies established in Europe where the equity-based platform can assess if it is viable or not; the owner must present a business plan and financial forecasts to upload in the platform. At the end, this point rely on local regulations of the country.

If the evaluation from the point of view of the team of the equity-based platform is right; the procedure to upload the project in the platform is the same as it was explain the last chapter (upload full information about the project, video, photographs). All of them in conjunction to reviews of records and financial history, clear description company's structure and team composition, presence of a director corporate, and due diligence before disclose the project to the public.

After the project is released for general public, it has 30 days to reach the target (in the same way as any crowdfunding based). As clear is the information and the planning, as soon will collect the money; in addition to the diffusion with inner circle (family and friends), and investors' community.

Once the target has been reached, the equity-based company should help to close the funding round, provide legal support to complete all procedures and formalities corresponding to the legal documentation. Besides, it is mandatory the anti-money-laundering revision on the new investors. If all is correct, the funds will be transferred to the owners of the project, and the equity-based company will get a commission – in case of successful projects – over the total collected amount. Once all investments have been processed, equity-based company issue share certificates, send to the owners of the company the final investors.

There are plenty of benefits, and some of them are basically:

- Fast access to capital. Because the investor recovers the funds within three months (depending on the invested amount, but generally it is a small amount).
- Benefits go further funds because it is possible to invite more customers to own a stake in the business to drive it in long-term engagement.
- Depending on the work of equity-based platform, the final product to invest must be efficient from financial and legal point of view; straightforward and streamlined.
- It is possible for an investor to invest in a previously established enterprise and/or consolidated company who are looking for funds for a specific project; diminishing the risk that imply a startup and getting profitable investments.
- There are different criteria to regulate the minimum raise and the maximum; because this issue has been a topic of discussion for regulating. Once again, the amounts depend on the regulation of countries. For example, Crowdcube register an average raise of £670,000 (approx. € 754,600).
- Exist the possibility of diversify portfolio because that increase the probability get a good return (it is recommend to invest at least three different projects). In this way the investor is spreading her money across different projects – consequently, different investments – giving a kind of “cushion” in case that one of the projects fails.

- Exist the possibility to recover the invested money soon, because the amount invested it not so high.
- Equity based reduce the searching cost to find different options to invest; bringing as a result the minimization of fail's risk due to diversify portfolio.

#### **4.1.3 Investor.**

Majority of equity based platforms provide a guideline and major recommendations for people who are looking for integrating in a community of investors. As it was said in former chapters, this is the hardest type of crowdfunding, consequently it needs more information and orientation to a general public. In fact, in regulations of some countries estipulate a cap for non-qualified investors in order to protect people in case of fail.

In the same way as it was made for the section of 5.1.2 Creator, this section is based in its majority on the guideline for investor made by the platform Crowdcube [Crowdcube3, 2018]. Some platforms put a minimum amount to start investing, it can be from €10 to higher amount, and if the project succeed, the investor should receive a copy of the company's proposed articles of association, and also she will be notified in a 7 days cooling off period to review the articles and consider the investment. After this cooling period, the investment will become legally binding and the platform will capture the payment for the investment; and around 10 working days after the payment for the investment has been processed, the platform will issue the share certificate on behalf of the business.

Once the investment has been processed, the investor receives a share certificate and she is register in the correspond institutions. So, the investor becomes a direct shareholder of the company; hence the amount invested and the equity issued by the company in exchange for the investment will affect the percentage of ownership in the business.

Companies are free to offer different types of shares; some of them offers shares with voting rights only if the investment is above a specific threshold; and sometimes they issued as a support to maintain the control of the company in the hands of a senior management; however, the majority of companies offers shares with less voting rights or no voting rights.

### **4.1.3 Inherent risks.**

Startups and newly created companies have inherent risks due to their natural behavior. They have a high probability to fail by several reasons like lack of acceptance among people, lack of diffusion, incorrect introduction to the market, or fierce competitors, these reasons can be enough to close the business in a short time, or the scale is in a slow manner. The most common problems are:

- If the business is going bad, it will close; losing the totality of the investment with absolutely no possibility of recovery.
- If the business present problems to scale, hardly ever presents positive figures in their accounting. So, companies face a problem to pay dividends; in fact, businesses have no obligation to pay shareholder dividends. During a time all the profits are re-invested into the business to fuel growth and build shareholder value. So the risk of loses is high and the time to become a stable business can go beyond one year until they reach a positive balance.
- Absence of diversify portfolio can be translated in a big problem, due to the risk of putting the money in a single project. If that project goes bad, the investor will lose their money.
- Lack of experience assessing investment opportunities.
- Another issue that creators must face the valuation of their own business, in fact there is no objective method to value a startup to succeed at equity-based; inasmuch as an early evaluation can damage. If it is overestimated, the results would be a low performance of the company. If the valuation is low, the potential for investors will be more and the pitch will receive greater interest.
- Many of these companies hardly go to a stock market, consequently in case of lack of equity it is hard to sell the shares of the company. Moreover, the types of shares are non-voting shares, becoming it in an unattractive market.
- Some people try to raise money through equity-based with the purpose of paying debts of existing companies; nevertheless, paying off debts is a prohibited use of funds under this scheme; however, this depends on regulations of local country.

Despite careful regulations, nowadays the operation of this model is not so common as other types of crowdfunding. As it was explained before, the main reason is due to the complexity and some regulations are too restrictive to facilitate its operation. Even in countries where equity based is legal, debates still rage over the potential for fraud and the need for investor protection. In addition to the variation of securities regulations per country, strategies for expanding equity crowdfunding platforms across countries often require partnerships and alliances [Bruton, Khavul, Siegel and Wright, 2015].

### **4.3 Legal framework of equity crowdfunding.**

As it was written in the last chapter, equity based regulations are different depending on the regulations of each country. But it is important to highlight that suitable regulations are mandatory in order to create sustainability in this sector, and at the same time they must be coherent to the regulation that establish in the sense that, they must find a balance between the development that they should encourage and the risks that they are looking to mitigate.

In Europe, the countries that have higher volume in equity crowdfunding are: UK, France, Germany and the Netherlands. While in regulations, countries like Italy have established law that are at the vanguard.....

Securities regulators work to further public interest by supporting investor protection and facilitating market integrity; they provide a regulation that platforms are looking for on behalf of entrepreneurs who are looking for flexible ways to raise capital. But, they are not insurance policies against investor losses, and they are not designed to protect all investors from losing their money in all circumstances [Heminway, 2011].

#### **4.3.1 Due Diligence.**

Due diligence, roughly speaking, is when a process to investigate either a product or a potential investment to confirm the veracity of the facts following the rules previously established by law. That is, for example when a company is creating a project, it is following respective regulations in order to proceed with the law.

It can be defined like the process that works as a filter, where it reviews proposed investment opportunity and the people who are offering it before transactions take place in a platform. Due diligence is relevant during the process in equity crowdfunding because provides help for investors giving them a basic understanding of the company, also it helps to identify companies that are not ready for fundraising process [Clark, 2016].

Based on the information taken from Crowdcube.com [Crowdcube4, 2018] in order to ensure the due diligence, platforms can carry out this process only if they are approved and regulated by the correspondent governmental institutions (in the UK the organism in charge is the Financial Conduct Authority) with the purpose of the same platform be able to review and approve every project before to publish it the platform, in order to ensure to the community of investors that all the disclosed information is fair, clear, and with probity.

So, the platform is conducting due diligence on the company, checking its legal structure, organization, market size, contracts, partnerships; all this work is focused to ensure the probity of the information. Also, it is possible for platforms to outsource this work, and depending on the clarity of the information, the time can last from 3 to 4 weeks.

When the project has reach its goal, the process of due diligence should continue by the side of the platform in order to:

- Check the company's share structure.
- Review the requirements for constitution a company under the laws (known as Articles of Association or Articles of Incorporation) to determine the share classes and their rights.
- Reviewing any existing shareholder, subscription, or investment agreement to confirm if the shareholder rights and company obligations are suitable with crowdfunding round.
- Ask for a warranty that the share price payable by investor has been calculated on a fully-diluted basis; taking into account all issued shares, options and convertible loans.

This action must be done before investments are completed, and any funds being captured.

In this part of the process it is not checked any ownership of intellectual property, nor the case of any potential infringement third party intellectual property right; or any property of asset.

Although there are procedures to ensure transparency and a correct due diligence, it is mandatory that participant companies who apply for funding being the responsible to ensure the accuracy of the information. So, they should perform their own due diligence process, checking their personal credit, accreditation and bankruptcy checks. As clearer is this information, sooner is the revision carried out by the platform team.

In 2013 Cumming and Johan [Cumming and Johan, 2013] performed a study on equity crowdfunding before it was allowed to operate in Canada. The study was focused only in the Canadian population, and they built a multivariate regression to evaluate the relevance of some variables, as due diligence, have over people, and regulations. For instance, they describe that in some geographical areas as Ontario entrepreneurs and other stakeholders pushed legislators in order to permit its operation; however, at the same time it was uncertainty if the securities law would be adaptable to demand pressures to allow crowdfunding.

In this point is possible to outstand a "big however" because, in spite of multiple benefits of ECF, indeed there are important examples of entirely companies exist with the help of crowdfunding, because this instrument made possible the fundraise. Exist uncertainty due to the risk of fraud, money laundry and ignorance in finance.

The results of the regression indicate that diversification reasons for investment are statistically associated with higher rankings for Portal Due Diligence, and this effect have a confidence of 95%. This is a kind of intuitive result because diversified investors are spread over a large number of investments, by definition and time constraints require that due diligence be outsourced to a greater degree.

Networking reasons have a positive relation with education and inversely associated with Portal Due Diligence. Again, this result is intuitive because networking is facilitated by educational forums and investors who networks are ones that seek their own information and are thereby able to better and more efficiently carry out their own due diligence. Support entrepreneurial reasons positive with limits on investment, continuous disclosure, advertising and Portal Due Diligence.

Investors who want to participate in entrepreneurialism generally do the investment without correct information, and are strongly influenced by advertising, and do not carry out proper due diligence on their own. Support entrepreneurialism can be a reason to invest without the correct due diligence.

However, there is no level of due diligence able to prevent genuine business failure. Good due diligence starts with verifying that a business does what it says it does, has achieved what it says it has achieved and is in no way misleading investors [Grant, 2017].

#### **4.4 Factors that makes successful the mechanism**

This kind of projects involve a great number of factors which presence or absences, can influence the performance of the project. These factors can make the project to achieve the target capital and succeed; or on the contrary the project can fail due to their absence.

As it was written before, the key factors that affect the performance of a project are geography, community, technology and legal framework but these factors have their influence in a macro level. Whilst there are other factors involved in the performance at micro level such as: detail of information; quality of the product; quality of the video and photos; diffusion of the project among family and friends; size of the community of investors; amount of target capital, equity offered, years in the business; and even the language can be a determinant factor of success.

In a study carried out by Vulkan, Åstebro and Fernandez [Vulkan, Åstebro and Fernandez, 2015] using linear probability model using dichotomous success indicator as a dependent variable where they get descriptive statistics finding some of the main factors associated with the probability of success, such as:

- The share accumulated in the first week of the campaign. An investor hardly ever puts money in a project where there is no participation from the counterpart; once again, “money goes where money is”. In general terms, successful crowdfunding campaigns

collect, on average, around 18% of the final goal, and the same behavior remains for equity based.

- The investment goal set by the promoters, this factor is associated to the target to collect and the pre-money evaluation.
- The largest amount pledged by a single backer. The higher is the pledge, better is the share type. For instance, for a project of Crowdcube.com if a person do a pledge of £11, the share type is classified as type B, that is a share with right to participate in dividends and capital distributions but do not have any vote or pre-emption right. On the contrary, if the pledge is £3,000 the share is an ordinary share where the holder is entitled to one vote per share in any circumstance, do not have any predetermined dividend amounts and it has certain pre-emption rights. Consequently, it is easier that a pledge being bigger in equity based than in any other type of crowdfunding.
- The number of backers in the campaign; however, this point is strongly related to the diffusion, information available and “virality” that the project has had among inner circle and community of investors.

In overall, these four variables make a baseline success of 33.9% (close similar to the percentage of the platform Kickstarter with 35%, explained in the chapter 2). So, it suggests that these variables are determinant in a campaign to know if a project will success or not.

Likewise, Silvio Vismara [Vismara, 2016] found that some of the factors that encourage the usage of equity crowdfunding is the removing of a middle-man to make an investment, bringing a place for non-professional investors to participate with small amounts. Otherwise, as it was mentioned previously, some countries have restriction in the maximum amount of investment in case of the investor wants to invest a big pledge.

Also, in his research documented in the work "Equity retention and social network theory in equity crowdfunding" demonstrates that:

- A larger percentage of equity offered by founders decrease the probability of success of the campaign.

- Projects with founders with more connections have greater probability of success; in this way, the social aspect have a great relevance in entrepreneurship. In a similar way of Vulkan et al where the number of backers is one of the key succeed factors.
- A high percentage of equity offered is associated with a small number of investors and smaller amount of capital raised; positive signals of commitment are recognized by investors as a result of high proportions of equity that entrepreneurs have retained.
- The target capital amount cannot be considered as a relevant factor that influence the in the capacity to raise funds, consequently in the success of a campaign; here the relevant factor to achieve the goal is the number of investors who are willing to invest in that project. If the target to collect is high, the project needs a big number of investors (size effect).
- Female founders raise less money than male, but they do not differ in terms of ability to attract investors.
- Founders who sell big portions of their companies at listing are less likely to attract the interest of potential investors. Therefore, founders' behavior at listing is relevant to boost the probability of their ventures success.
- Entrepreneurs' social connections help inventors to reduce information asymmetries and have been demonstrated to influence venture finance decisions.
- Equity retention is a predictor of crowdfunding campaign success.

The text written in the equity crowdfunding projects can be a determinant to know whether a project will succeed or not. In a work developed by Mitra and Gilbert [Mitra and Gilbert, 2014] found the importance of the language to connect the crowd to fund crowd-projects. Because, it is common for people to rely on social networks to diffuse a message but the content sometimes is neglect it. phrases and specific words that can help to succeed or fail a project.

They made a list with 100 word which can help to increase the success of a project, and at the same time, this work presents another 100 words which can work in detriment of the project; and these words have more impact (or less) depending on the category of the project. Despite this project was carried out on Kickstarter platform; nonetheless, this study can be extended to

any other type of crowdfunding because it is related to information; hence, it reduces the information asymmetry.

It make sense to compare equity crowdfunding and business angels because they have some commonalities in data as the average size of campaigns, the presence of a pre-money valuation, and an expressed equity sharing deal for each pledge. Equity crowdfunding make a distinction in the side of the contracts because they are simpler and more standardized; normally, the information provision is less; the number of investor, generally is bigger (belonging to a community) and the time to collect the money is shorter than any other financing options.

However, in equity crowdfunding, the creator upload all the information related to the project; so the interaction with the user is online and the opportunity to interact with potential investor face-to-face is almost null; hence, a project rely totally on the quality of the disclosed information to attract potential investors; otherwise, an missing information can generate information asymmetry.

Information asymmetries or information failures have an influence on decision-making process, and this happen when in a business, economic transaction or government one party possess more information or knowledge than the other party - different people knows different things - and they matters when one party is not fully aware of the quality and behavioral intentions of the other party. Although insiders' intentions are not observable, potential investors can deduce them from the characteristics of an offer [Vismara, 2016].

In markets with information asymmetries, a signal quality takes an important relevance because of in finance, investors are searching signs of performance or any hint to follow to take an opportunity or recognize a weakness; for example, to represent this relation the authors as Ross S. [Ross, 1973], and Bhattacharya and Dittmar [Bhattacharya and Dittmar, 1979] illustrate signals of firm quality with a firm debt and dividends, respectively. Under this model, high-quality firms are able to generate interest and dividends payments in long-term.

On the contrary to low-quality firms, that they would not be able to hold payments in the same period of time.

These signals make an influence in the perception of the firm quality for lenders or invertors (in general for external observers'). Although most signaling models include quality as the distinguishing characteristic, the notion of quality can be interpreted in a wide range of relevant ways [Conelly et. al. 2011]

#### **4.5 What moves to be part of crowdfunding.**

In the last chapter, it was explained that people search to invest in equity crowdfunding business with expectations for a return on their investment and take an active role in the performance of that business sharing knowledge. Also, the "engine" which moves investors to participate on this is fueled by the word-of-mouth.

In the same line as Vulkan and Vismara et al, Hervé [Hervé, 2016] made a study over the French platform WiSEED.com, and they found that if a person belongs to a community of investors, that person is considered more "sociable", then that person will tend to invest more, but only if the investor is a woman. Moreover, women invest less in the riskiest investments but more in safer ones.

Another peculiar feature is that almost all the investments are made by men – around 93% of the total investments are made by men, between 35 to 55 years old – besides, the risk aversion plays an important role in overconfidence index between men and women. In another research made by Schweinbacher and Larralde [Schwienbacher and Larralde, 2010] describer the people who participate in crowdfunding as an "elite web user"; where that people are generally married, middle-aged, white man with high-speed internet connection. Some of these characteristics could be true at the beginning of crowdfunding, before it crossed the chasm of the innovation curve; current now the usage of this instrument is possible for the sector belonging to the early majority.

The figure 5.# (based on information from the World Bank in the Crowdfunding's Potential for the Developing World report [World Bank, 2013] and the technology adoption curve of Rogers [Rogers, 1962]) it is illustrated the curve of technology adoption where the innovativeness dimension measured over time at which an individual adopts an innovation is continuous, and he split into five adopters category, and at the same time, this division is congruent with time of crowdfunding adoption. Both are related to time and sales/amount of capital required.

Rogers describe how the type of user is changing through time, where at the beginning only enthusiast and visionaries. Likewise, the same happen in the adoption curve for crowdfunding where at the beginning the most suitable typology are donation or reward based.

After it continues the funding gap or chasm, concept introduced by Moore G.A in 1991 to describe that gap that exist between early adopters and early majority. Here the main point for firms is to understand the necessity of the early majority; at this point is when it is applicable an equity based campaign, because the ideas of the projects are more mature or the company have better organization than time before, also in this stage the companies needs to collect a bigger amount of capital to pass from prototypes or first production to a chain production. If that project/idea achieve to collect funds and connect tastes and expectations between these two segments, the success is almost sure because this segment represents around 34% of the total size of the market.

Going forward, the demand for late majority can be satisfy for a company that is looking for its growth – at this stage it can be an early growth – where probably equity crowdfunding would not be enough to satisfy the needs of expansion for the company; thereby, here appears other options as venture capital or private equity for financing a more mature company whose first steps were with the help of crowdfunding.

Finally, the last segment of the market belongs to laggards who are people not quite interested to acquire a new product and are more skeptical. At this stage companies have proved their capacity to satisfy a market with products of quality, and in order to remain in the market they will probably seek funding from banks.

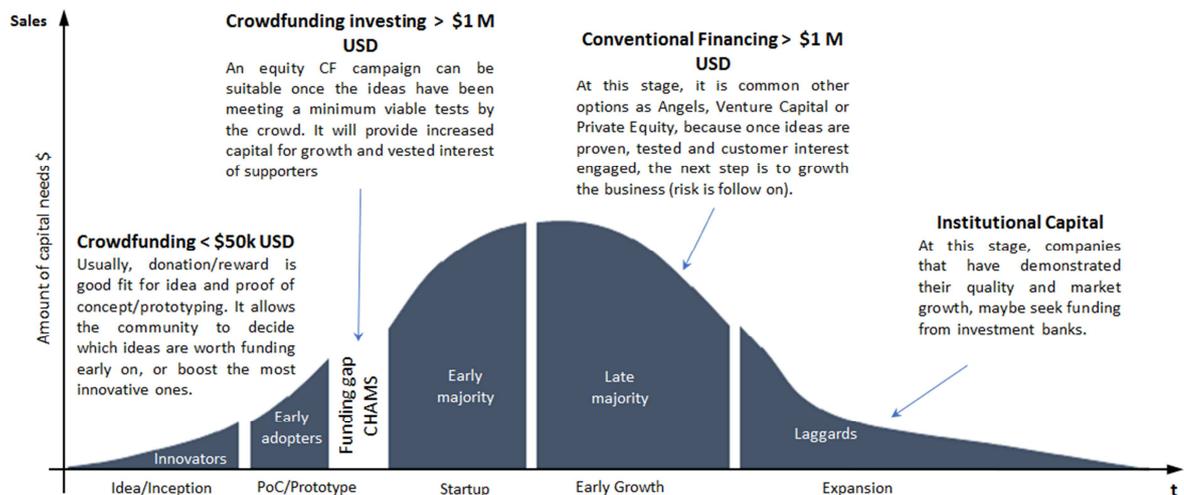


Figure 5.#. Market segments adoption along technological lifecycle and crowdfunding adoption curve.

[Hervé, 2016] Concentrate their research in the influence that the gender and location of the investor can generate to take a decision despite of risk or any other aspects. Equity and real estate crowdfunding affects the types of individuals who participate in these campaigns. Research identifies several determinants of success of a crowdfunding campaign: size of the founder's social network, the presence of a product video, the social capital of founders, the desired funding goal, the duration influence on the probability of success (Frydrych et al., 2014; Giudici et al., 2013; Kuppuswamy and Bayus, 2013; Mollick, 2014). Geographical location plays less of a role than for other forms of entrepreneurial finance, as crowdfunding alleviates the role of distance in early-stage financing (Agrawal et al., 2015). Lin et al. (2013) show that social networks can reduce information asymmetries and thereby increase the probability of funding. Social interactions between investors contribute to the success of a campaign.

Vismara (2016) find evidence of information cascades in equity crowdfunding, in which early investors help attract follow-up investors.

in a rational decision-making process. This process involves many steps, including defining the problem, identifying the criteria, weighting the criteria, generating alternatives, rating each alternative on each criterion, and computing the optimal decision. because human rationality is bounded, the best way to understand the decision-making process is to determine how decisions are made.

**Factors influencing the usage** Schweinbacher and Larralde [Schwienbacher and Larralde, 2010]

Lack of pre-existing resources. For some entrepreneurs with little collateral would be more probably to get financing from alternative financing instruments than banks.

Risk aversion. As it was described by Hervè, the gender makes an influence on the type of investment, for female investors have a preference on fewer and smaller investments, in addition to less riskier business. In contrast to male, where they invest more in riskier projects.

Moral hazard. Can come in different forms ....

Information asymmetry can lead investors to take a wrong decision due to lack of information, or because many of them are not-qualified investors and lack of experience to recognize correctly signals from the market. In this point can be the origin of a dilemma where the entrepreneur can be skeptical to disclose all the information of a project for fear of the risk of plagiarism of intellectual property or risk of losing commercial/trade secrets.

Legal issues regarding equity issuance and multiple investors. Regulations can encourage the capacity of companies to search funding from the crowd; or simply they can limit their participation of shareholders final amount.

Stemler says that risk is inherent in all new ventures, and worthwhile business endeavors because either the entrepreneurs cope with the risk and make the economy grow, or they remain stagnant. CROWDFUND ACT attempts to mitigate some of those risks by fixing a limit in the amount that investors can put in risk and providing support for them to take informed decisions.

CROWDFUND ACT provides help for platforms to avoid the classification of a broker, which would impose a high cost on such sites. This act does not allow platforms any compensation for their employees on commissions, consequently there are no incentive to push investors to invest in a specific project.

#### **4.# Encouraging small and medium enterprises.**

Equity based seems to be a suitable instrument to fund SME's because it encourages the participation of investors in a running company or newly company. Consequently, the participation of investors goes beyond giving the money; besides it activates the participation of people with knowledge in finance, and it makes an open invitation to participate any people (qualified investors and non-experts in startups finance) with money.

In some countries, equity based has a high percentage of effectivity for companies that are working until now since their foundation through collecting money in equity crowdfunding. For instance, in the UK, a 90% of funded companies through this platform remain operating since 2011 [Crowdcube3, 2018], this base is focused in long-term business rather than just a short participation giving money.

This mechanism can boost the participation of the correspondent governmental organism to regulate in a suitable way the operation of equity crowdfunding. Making laws which encourage the participation of the population, activate the local economy, provides financial education for different sectors of the population.

Equity crowdfunding is intended to help entrepreneurs fund their real estate projects or company. Crowdfunding has become a viable alternative to traditional sources of entrepreneurial finance and a way to "democratize" finance by providing investment opportunities to innovative start-ups that, so far, have been restricted to institutional and accredited investors (Agrawal et al., 2015; Kim and Hann, 2015; Mollick, 2014).

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Investors of startups in the UK also benefit from a very generous tax incentive via the Seed Enterprise Investment Scheme (SEIS) and the Enterprise Investment Scheme (EIS). Both schemes are designed to help small UK-based companies raise finance by offering tax relief on new shares in those companies [Vulkan, Åstebro and Fernandez, 2015]. That is an example of how some countries are looking for encouraging other options to boost the performance of

SME, in this way regulatory bodies have an opportunity to explore the characteristics of equity based in order to

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