Facultad de Ciencias Económicas y Empresariales (ICADE)

DRIVING FACTORS IN THE INNOVATION ADOPTION: FROM REWARDS CROWDFUNDING TO EQUITY CROWDFUNDING

Doctoral Thesis

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ABSTRACT

This research analyzes the degree of relevance of certain factors in the intention of adopting the technological innovation that equity crowdfunding involves. A holistic and integrated model is proposed, which incorporates different theoretical frameworks consistent with the object of study.

An online survey was conducted among contributors to campaigns from the largest RCF platform in Spain. The empirical framework of analysis is based on structural equation modeling (SEM), as most of the relationships proposed in the hypothesis involve latent variables or constructs.

The results emphasize the relevance of the perceived ease of use (above utility) in the intention to participate in equity CF. This factor mediates the role of perceived utility in the adoption of this innovation, compared to the TAM model (in its different versions). Likewise, the confidence of the potential adopter, based on different elements, does not directly determine the participation in equity CF, unlike what happens with other online investment scenarios.

KEY WORDS: Equity Crowdfunding; Adoption Decision; Perceived Usefulness; Perceived Ease of Use; Trust; Empathy; Personal Innovativeness

RESUMEN

La presente tesis analiza el grado de relevancia de determinados factores en la intención de adoptar la innovación tecnológica que implica el crowdfunding de participación. Se propone un modelo holístico e integrado que incorpora diferentes marcos teóricos consitentes con el objeto de estudio.

Se llevó a cabo una encuesta online entre los mecenas de campañas de la mayor plataforma de financiación participativa de España. El marco de análisis empírico está basado en el modelo de ecuaciones estructurales (SEM), puesto que la mayor parte de las relaciones propuestas en las hipótesis implican variables latentes o constructos.

Los resultados enfatizan la relevencia de la facilidad de uso pecibida (por encima de la utilidad) en la intención de contribuir a crowdfunding de participación. Este factor actúa como mediador de la utilidad percibida en su influencia en la adopción de la innovación, en comparación con el modelo TAM (en sus diferentes versions). Asímismo, la confianza del potential adoptante basada en diferentes elementos, no determina de manera directa la adopción de CF de participación, de manera contraria a lo que sucede en otros ecenarios de inversiones online.

PALABRAS CLAVE: Crowdfunding d eparticipación; Decisión de Adopción; Utiidad Percibida; Facilidad e Uso Percibida; Personalidad Innovadora

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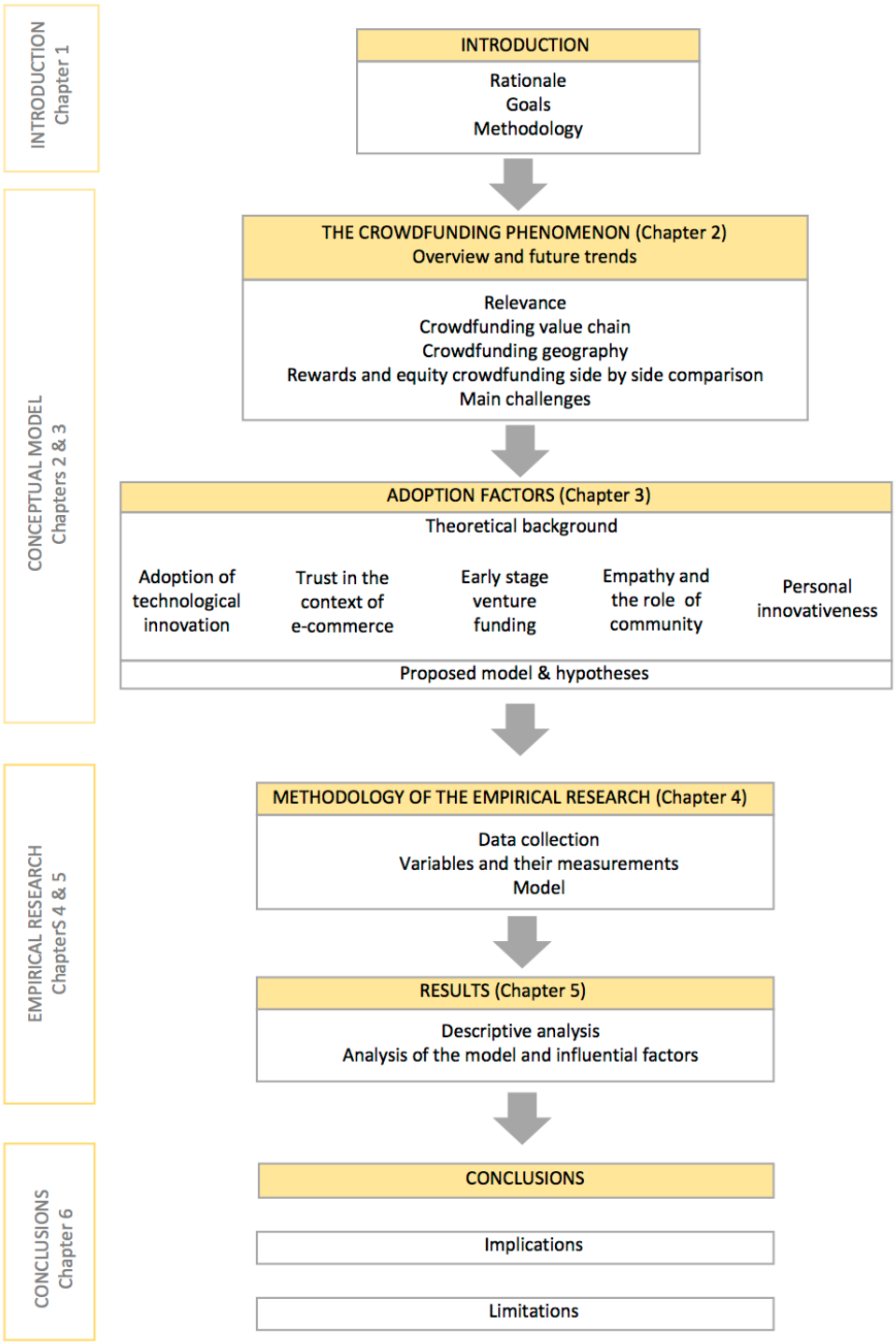

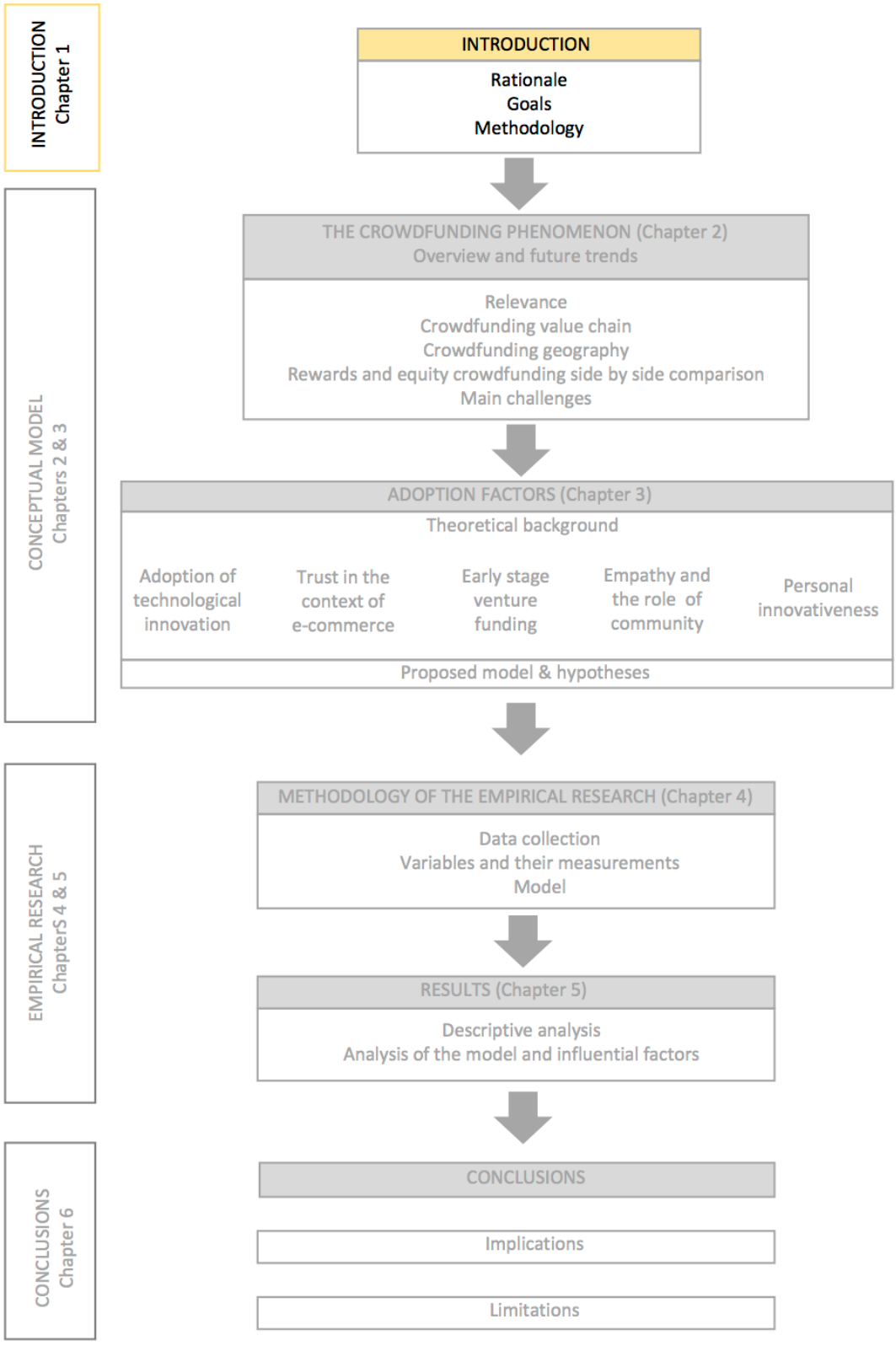
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1. INTRODUCTION

Patty Brown-Christenson is an enthusiast of clean energies and so when it came to choosing a present for her son´s birthday, she did not hesitate to contribute to the Vortex crowdfunding campaign in Indiegogo. In return, Patty´s son enjoyed a free flight event together with the funders of Vortex, a company that has developed a bladeless fan that produces wind energy.

However, the most memorable gift for her family is the lasting friendship with the Vortex team, a new experience for Patty, who recently retired after many years serving as an employee of a large bank.

Today she is sitting in the rocking chair on her porch, trying to decide if the impulse that drove her to contribute to Vortex rewards crowdfunding campaign is enough to engage with the venture in a new manner, by taking part in an equity crowdfunding campaign.

1.1. RATIONALE

Crowdfunding is an innovative model that leverages technology in the form of platforms, payment methods and social networks, in order to provide funds for projects. It is an innovation in itself that connects three main stakeholders – creators, platforms and funders - compared to the traditional two-party approach of creators and financial institutions. The main contribution of crowdfunding is to enable the viability of projects by distributing the risk into smaller units, undertaken by each of the funders.

Despite being a recent phenomenon, Crowdfunding (henceforth CF) is experiencing significant growth in recent years. The $34.4 billion (B) contributed globally in 2015 is estimated to have increased by almost 40 times from $854 million raised in 2010 (Massolution, 2015).

Recent studies attribute to the CF a beneficial effect on the economy. According to the World Bank, CF enables certain projects to reach the market that would otherwise not have made it, therefore promoting the so-called "democratization of finance" (World Bank, 2013; Dealindex, 2015). The EU advocates CF as a vehicle that facilitates SME financing while promoting greater competition in financial services (European Commission, 2016). Existing research posit that CF brings creators closer to funders by reducing both geographic and gender barriers (Agrawal et al., 2014; Greenberg & Mollick, 2014), while contributing to job creation of all type of qualification (C.C. Advisors, 2014; Ramos, 2016; Baeck, Collins, & Westlake, 2012). In addition, authors like Assadi state that CF reduces transaction costs both for creators and backers (2015).

Under the term CF different business models operate that differ by the way in which funders are rewarded for their contributions, and that support business during their growth cycle: donation CF is utilized in the first stage in order to obtain initial funding,

subsequently rewards CF (RCF) is used to fund the prototyping, once the initial test is successful, equity CF (ECF) is used for financing the investment needed to escalate the business and finally, once reached some traction, lending CF is applied to fund ongoing activities.

Excluding donations, the most widespread type among non-professional backers is RCF by which they receive a product or service related to the campaign in exchange for their contribution. Artistic projects are the most commonly supported by RCF and the funders´ motivations to be involved in these campaigns are mostly based on affinity (Gerber & Hui, 2013; Harms, 2007). RCF platforms like Kickstarter and Indiegogo have obtained high notoriety worldwide due to their large size in terms of projects, funds raised, and number of backers.

Following the approval of legislation in different countries in 2014, ECF begun to gain popularity. In this model, in exchange for their contributions, funders obtain either a participation in the company, or part of its future cash flows. Early ventures utilize ECF for their growth at a more developed stage than RCF. Regarding funders´ motivations, there is no agreement on wether they are based on expected financial returns or rather by affinity related reasons (Ahlers et al.,2015; Cholakova et al., 2016; Lukkarinen et al., 2016).

Amounts contributed in ECF projects are greater than in RCF and the timeframe is longer, several years in the case of ECF; in addition, ECF involves a substantial risk since all the funds provided could be lost and therefore it is considered as the hard side of the CF. An additional feature of this type of campaigns is that professional investors are often present, which implies information assymetry risk and even potential fraud against the unsophisticated ones. Therefore, and in order to avoid situations such as the ones experienced in the recent financial crisis, several stakeholders have warned against the risks involved in ECF and have promoted a legislation that is quite protective of the investor; an example of investor protection is the requirement to differentiate clearly projects that target accredited funders form

those available to anyone (Deutsche Bank Research, 2014; European Commission, 2016).

As per the above, ECF presents substantial differences with RCF and considering the potential contribution of ECF for the development of new businesses, it seems relevant to assess the opportunity that exists for this innovative model.

Subsequently this research attempts to evaluate whether the patron's affinity with the community and his/her desire to contribute to the project's growth is a sufficient motivation when facing the technological innovation that ECF implies.

From an academic view point, the relevance of this research lies in the following:

- ECF is a new topic about which academic literature is scarce, in particular there is a lack of quantitative research and of analysis from the angle of funders´ motivations. Therefore, the proposed thesis has the potential to fill this gap and might contribute to the advancement of knowledge in this area.

- Results of this research can be useful for various stakeholders involved in the ECF process:

    - CF platforms, in estimating the potential that exists for ECF platforms to entice RCF funders, as well as the necessary information and / or training to allow this to occur
    - Legislators, to identify potential improvements in the existing regulations that would facilitate the access to ECF of non-professional investors while mitigating the risks involved
    - Project creators, in the design of their communication campaigns

- It is a current issue, since ECF platforms can be considered as "fintechs", that is, companies offering technology-based financial services; and these

innovative companies are following a pattern that suggests a possible disruption in the financial system.

- Since it is agreed that crowdfunding has a beneficial effect on the economy, answering these questions will allow us to estimate the potential of this new model.

The model proposed incorporates the following angles:

- Technological. Based on the technology acceptance model (TAM, Davis, 1989), that has proved consistently successful in explaining adoption and has been favorably applied to e-commerce and online investment, which are areas very closely related to CF.
- Early venture finance. Since the most salient contribution of ECF is to bridge the financing gap between RCF and professional investment such as business angels (BA) and venture capital (VC), trying to evaluate wether funders are driven by motives similar to those of professionals or rather by empathy related ones will help in designing the campaigns. Moreover, the role of trust is considered since potential funders need to develop double trust: not only towards the project but also towards the CF platform.
- Empathy. This aspect is the main driver of RCF: contribution to the community that is linked to social capital and the sharing economy. This research will try to understand to which extent ECF incorporates this affinity-related component

The key contribution of this thesis intends to be to help identify the motives that would entice RCF funders to contribute to ECF campaigns in an informed manner. The results could foster the expansion of ECF as an innovative model that could bring beneficial effects to the development of new business ventures and thus to economic growth.

1.2. GOALS

The primary goal of this thesis is to analyze the relevance of certain factors in the intention to adopt the technological innovation that equity crowdfunding represents.

The secondary goals are:

- To identify and analyze possible strategies for crowdfunding platforms and project creators to promote this adoption
- To identify potential sources of risk for non-professional project funders and to suggest courses of action to the legislator in order to minimize their occurrence
- To assess the opportunity for equity crowdfunding platforms to entice reward crowdfunding backers

In order to achieve the above goals, this thesis proposes a holistic model that identifies the relevance of the factors that influence the decision to adopt equity crowdfunding.

1.3. METHODOLOGY

This thesis provides an empirical study that proposes and tests an explanatory model of intention to adopt ECF .

The thesis begins with a comprehensive literature review demonstrating the existence of a number of academic publications that address the CF phenomenon from a wide variety of perspectives. In this first stage all CF types are considered, as well as different focus of study of the model, and the viewpoint of its main stakeholders. However, this review identifies an important gap in the existing research: the lack of a coherent model that explains the intention of capital providers to adopt ECF considering a technical perspective.

The second half of the literature review provides an in-depth analysis of the literature streams identified as important for understanding intention to adopt ECF: the process of technology adoption, trust in the context of e-commerce, early stage venture funding, empathy and the role of community and finally, personal innovativeness.

The factors identified are analyzed in detail and a model to explain ECF adoption is developed, including both the individual contributions of different factors in explaining intention to invest and the interaction among these factors. From this research, a series of hypotheses are developed to test the model and its underlying assumptions.

In order to test the model, an empirical research was conducted, consisting of a preliminary qualitative phase followed by a quantitative one, both explained in detail in chapter 4 of this document.

The purpose of the qualitative approach was to validate the survey instrument used in the quantitative research. First, a triangular group of CF experts was conducted with the aim of obtaining a holistic perspective that ensured that all relevant variables were included in the model, and a questionnaire was developed. Subsequently, nine semi-structured interviews took place with representatives of the three main

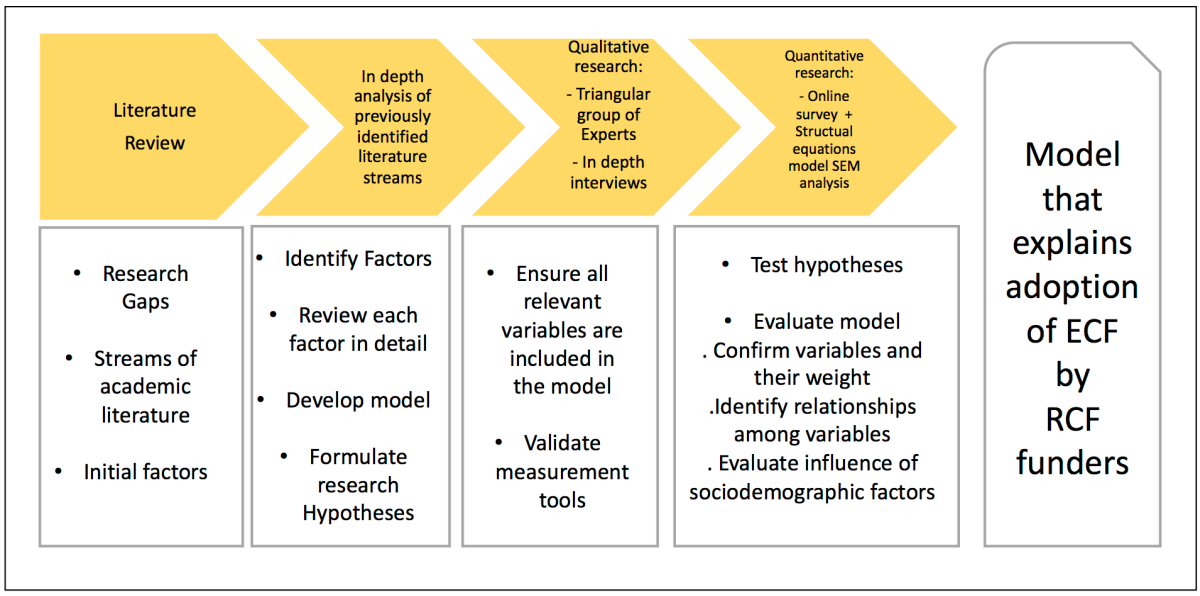
stakeholders groups: creators, platforms and funders, that served to validate the questionnaire regarding measurement of the variables, the relevance of the structure and contents of the questionnaire, as well as their usefulness for the analysis to be carried out.

The quantitative research used an online survey targeting existing funders of RCF campaigns from the largest platform of that type in Spain: Lánzanos. 241 participants completed the survey producing a large and comprehensive data set. Analysis was based on structural equation modeling (SEM), as most of the relationships proposed in the hypothesis involved latent variables or constructs

As an outcome of the above methodological process described, a model is proposed to explain the adoption of ECF by RCF funders.

The final section of the thesis provides an interpretation of the implications of these results and explores applications of this model to crowdsource funding questions more broadly.

Figure 2: Methodology of this thesis



Source: Author

A thorough literature review was conducted as the first step towards the definition of the model that is the purpose of this research. The result serves as a basis to identify the relevant factors that influence the intention of rewards funders to support projects using equity crowdfunding.

Since ECF is a technology-based innovative phenomenon that implies a change in the financing of projects, and that it is based in the community, all the perspectives mentioned have been addressed.

The literature review draws on four lines of research:

1. Research literature related to Crowdfunding. The purpose is to capture the essence of the concept as well as to determine its scope for the aim of this research. Even though all CF types are considered, a special focus will be placed on RCF and ECF literature as will be seen later. CF will be analyzed in depth in order to identify underrepresented areas in the research space.
2. Publications about adoption of new technologies. The innovative nature of CF resides in the use of web 2.0 technology for both connecting creators with funders and allowing online payments to occur. Therefore, identifying the main streams of research and models that explain new technology adoptions will contribute to decode the driving forces that influence individuals to adopt ECF.
3. Online investing literature analyzes this process that differs from traditional investment in the autonomy of its decision makers. Distinctive attitudes and behaviors associated will be searched in order to discover the extent of their influence in the adoption of ECF.
4. In addition to the above mentioned literature research, primary sources of data were consulted for statistics related to the CF industry. Secondary data was obtained from industry reports.

The birth and expansion of CF is the result a number of technological, social and economic trends that are shaping current economic activity and are analyzed in depth in chapter 2. Due to all these influences and its early evolutionary stage, the concept and its boundaries are a work in process.

As an example, CF can be considered as a materialization of a wider trend that is digitalization, in the sense that technology not only allows this new model to exist but also makes it more efficient when compared with face to face alternatives (McAfee & Brynjolfsson, 2008). However, the focus of this research is in the transition from one technology based model to another, that is RCF to ECF, more than in the conversion from an analogic to a digital process.

The concept of CF is linked with crowdsourcing (CS) in the sense that both are open calls to the crowd via internet. As a matter of fact, CF can be considered as a type of CS that calls for funds, as opposed to other type of contributions. Open Source is also partially related to CF but differs from it in that the resource belongs to the Project creator and not to the community.

CF is also associated to other concepts such as peer to peer online (p2p) lending, although in its origins p2p implies one to one lending while in the case of CF it is many to one lending (Bachmann, 2011). Numerous academic papers refer to lending CF and p2p lending as synonymous of and therefore, both terms will be interchangeable in this paper.

A strong link between the concepts of collaborative consumption and sharing economy, and CF exists since both are based on the sense of community and social capital (Fukuyama, 2001). Moreover, both practices are fostered by enabling technologies that have reached the mass market, like internet and mobile phones (Botsman, 2010; Botsman & Rogers, 2010). The existence of Social Capital acts as a cohesive force among citizens, who take the initiative of substituting products and services not provided by traditional institutions (Fukuyama, 2001), and such is the case with CF as an alternative source of funds provided by individuals as an

innovation in the financial industry. These concepts are considered as components of the empathy construct that is part of the model proposed.

Small contributions to support specific causes are not new: as an example, non for profit organizations have been using this technique for centuries to raise funds. More recent, microcredits commercialized by Grameen Bank are related with CF since both are small contributions for entrepreneurs. However, the main goal of microcredits is alleviating poverty while CF can be targeted to a wide range of purposes.

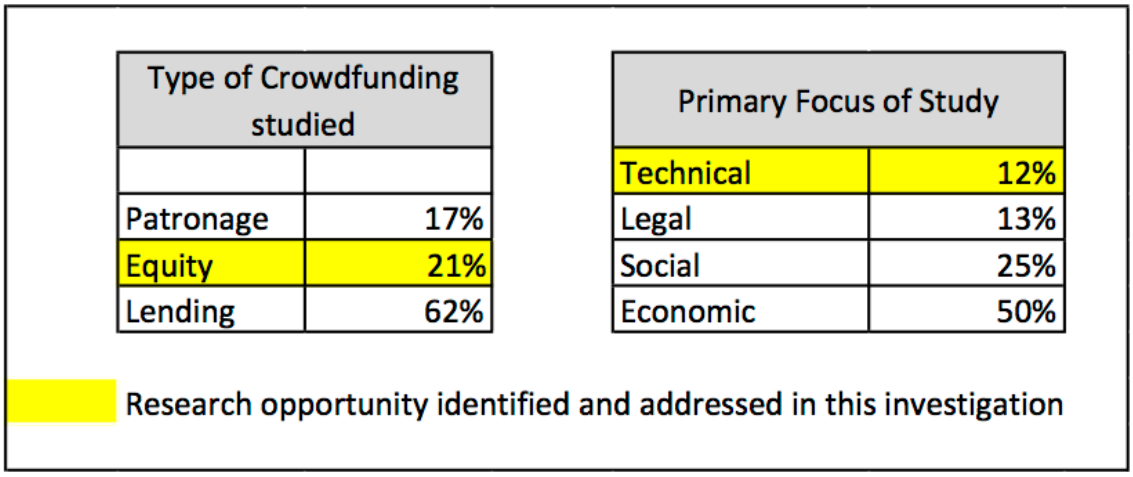
Due to the novelty of the CF model, it is not until the current decade of our century that academic literature is produced and literature reviews have been published.

Bachman et al.´s (2011) was the first CF literature review published. With a focus on p2p lending, the document tries to analyze the impact of different variables in the success of lending CF projects. The influence of factors from different nature is considered, such as demographic homophobia (gender, race, age), financial risk (entrepreneur´s rating) and the size of founder´s social capital (friendship relations, involvement in groups, transparency in social networks). This paper will consider these variables in building the model since they incorporate a risk assessment perspective present in both lending and equity CF.

Bouncken et al.´s review provides a comprehensive overview of the main CF concepts. Even though a universally accepted definition of CF does not exist, the authors identify its main elements: the relevance of technology, in particular the so called interactive web 2.0 as the basis of its existence, the social component, its association with innovative projects, and its role as provider of funds for early stage initiatives (Bouncken et al., 2015). For the purpose of this paper we will incorporate variables associated to the above elements and identify their influence in the decision process of investing in an ECF Project.

Feller et al. (2013) investigate 100 research artifacts and identify three types of CF: lending, equity and patronage (the latter category includes both donations and rewards). The analysis performed identifies opportunities that will be pursued in this research: a) the need for further research related to CF types different to lending, since the latter accounts for 62% of the documents reviewed and b) the potential interest to conduct studies with a technical/technology primary focus of study, due to the underrepresentation of this perspective (See Figure 3).

Figure 3: Classification of crowdfunding research



Source: Author, based on Feller et al. (2013)

In particular, in the two-way interaction between focus of study and type of crowdfunding, the authors identify a gap of research about equity crowdfunding from the social and technical perspectives. This research will try to fill this gap.

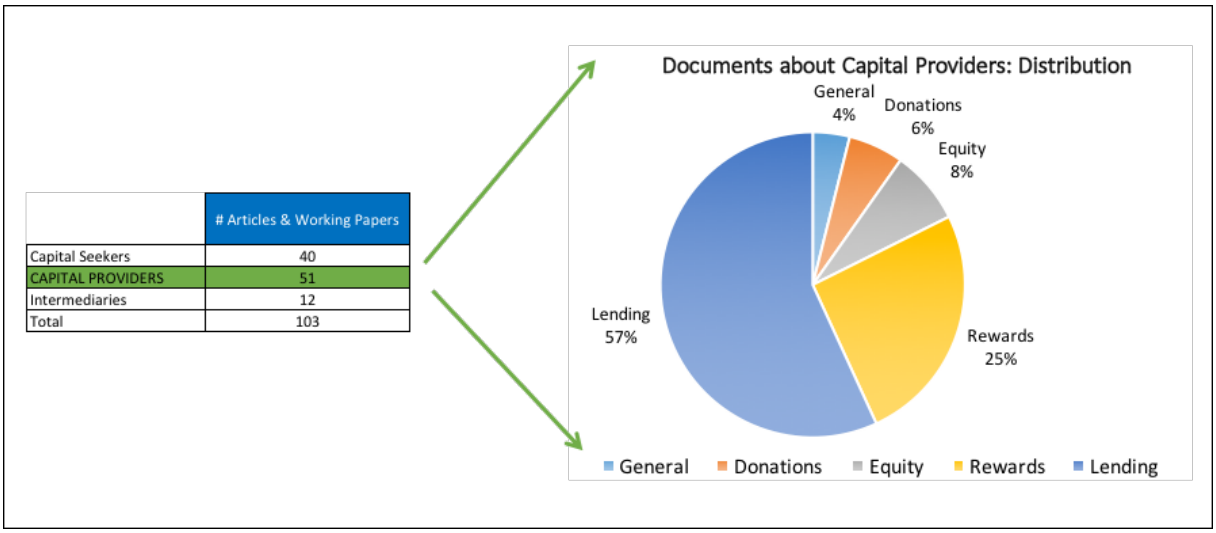
One additional contribution form Feller et al. is to acknowledge the relationship between funders and borrowers as a dimension that influences the decision to invest. This family and/or friendship link and its impact is a common theme in the CF literature and was previously mentioned in Bachman et al.´s review. Motivation of fund providers, not only financial but also philanthropic, is another issue at stake.

In this paper both variables are incorporated to the model with the aim to assess their relative influence in the decission process.

The most recent and comprehensive literature review from Moritz & Block (2016) analyzes 103 articles from the perspective of the three main stakeholders: new ventures as capital seekers, capital providers and intermediaries. The second group will be the focus of the present research. The authors provide with directions about opportunities for research.

First: lending emerges as the most widely represented type of CF and this reinforces the opportunity highlighted by Feller et al. to fill the gap by producing research on other types of CF as this paper does (See Figure 4).

Figure 4: Classification of research documents related to capital providers



	# Articles & Working Papers
Capital Seekers	40
CAPITAL PROVIDERS	51
Intermediaries	12
Total	103

Source: Author, based on based on Feller et al. (2013)

Second, reasons to provide funds seem to be different amongst contributors to different types of crowdfunding: donations, rewards, lending and equity. Therefore

this paper will focus on unveiling the specific motives of rewards and equity funders as well and the interactions among both types.

Third, characteristics of funders are analyzed: their attitude towards innovation, their social beliefs and their desire to contribute to make projects come true, are essential components of their personality. Therefore, reasons to provide funds are not only financial returns but also very connected to being part of a group that makes worthy projects a reality and enjoy the process in itself. These components will be incoporated in the model and their relative impact on the decision process will be examined.

Fourth, CF implies an innovation in the relationship between creators and funders where social networks put both groups in contact in a unique way. Therefore, the role of networks is analyzed in a profuse manner: herding behavior and impact of initial quality indications from Friends & Family contributions, will be incorporated to the model and tested in this research.

And finally, the financial perspective is considered by analyzing signals that investors utilize in their assessment of the Project behind a CF campaign. Issues such as the quality of the management team, a reliable business plan, the existence of an exit strategy and even the personal information about entrepreneurs are taken into account in the literature and will be subsequently considered in the model.

The second focus of the literature review conducted for this research is the adoption of innovative technologies.

From the literature review conducted two theories emerged that identify factors behind the decision to adopt new technologies.

1. TAM Model – Technology Acceptance model (Venkatesh & Bala, 2008). Identifies factors that influence individuals in their decision to adopt new technologies and subsequent usage. Based on social

psychology theories such as Theory of Reasoned Action (TRA, Fishbein & Ajzen, 1975) and Theory of Planned Behavior (TPB, Ajzen, 1991), TAM is the most widely used model and has been proved to predict above 40% intention to adopt a technology.

2. Roger´s difussion of innovation theory is among the most utilized models (Rogers, 2003). Its categorization of individuals according to the timing in adopting innovation together with the qualities that make innovations spread as well as the importance of communications are salient contributions that will be incorporated in this research.

In addition, the influence of personality in the adoption of innovations is taken it as a psychographic characteristic of the potential adopter that can act as a powerful driver of both the intention to adopt and the behavior finally realized. Therefore, personal innovativeness is analyzed as a potential component of the ECF adoption model.

Online investing literature was other focus for literature review due to its technological and risk assessment components that go beyond the traditional process of managing personal finance through a financial advisor, often a bank.

Investing online as a “do-it-yourself” activity implies a shift in control where consumers replace financial advisors as accountable for investment decisions (Konana & Balasubramanian, 2005). In this environment, psychological and behavioral components play a substantial role in the decision making process: factors such as the potential funder´s self-perception of technological competence (personal confidence in the ability to manage IT systems) as well as perceived convenience (potential to invest anytime anywhere from any device) shape the decision process.

The level of sophistication in the decision process that investors exhibit will determine the design and subsequent success of CF campaigns. How close funders´ degree of qualification is to professionals such as venture capitalists or, on

the other hand, to decision-makers guided by social networks conversations and/or personal relationships with creators. The purpose of this research is to analyze the potential transition from a simple rewards scheme to a more complex ECF model where risks need to be assessed, contracts signed and investment decisions made. A similar process occurred in the nineteen nineties when small investors moved from making transactions through their online financial advisor to invest independently making their own decisions. Because of the similarity between both phenomena, the online investment research publications are analyzed as an inspiration.

The decision to contribute to an equity CF campaign incorporates the risk of losing 100% of the funds. In an online environment where small amounts are provided to projects, potential funders have a substantially limited access to information when compared with the traditional personal advice process. Subsequently, we analyzed research literature about assessment of new projects. From the basis of Signaling Theory (Spence 1973) the author searched for publications about factors that point to a successful project from the investor´s eyes. Assessment of all possible risks associated to the venture: project risk, asymmetric information, adverse selection, moral hazard, liquidity, and platform failure (European Commission, 2016) were considered.

Finally, the impact of capital providers´ previous experience in equity CF will influence the decision. How much it will contribute to making better choice, how a previously good or bad experience will influence, are also factors that affect investors and are included in the literature.

Statistic publications as well as industry reports and analysis about the topic are an essential part of the literature review due to the novelty of the subject.

Regarding market data, Massolution is the most widely accepted source with publications covering facts since 2009 until 2015 as of the moment of writing this thesis. These industry reports contain figures related to volume raised, average per

campaign, number of platforms on a worldwide basis as well as by continent. On a similar note in Europe, reports from the Cambridge Centre for Alternative finance are widely recognized and have been utilized for EU data.

When dealing with descriptions and definitions of the CF phenomenon, The World Bank is the source consulted for an overall scope, with a particular focus on the potential contribution of CF to the progress of underdeveloped nations. The European Union has proven a determination to contributing to a rational development of CF. Its publications analyzed for this research focus on protecting small investors from potential risks involved in equity CF, with a particular emphasis in their level of awareness and qualification.

For in depth analysis about crowdfunding, the sources consulted were Banks' Reports and analyses, due to their position as incumbents in the financial services industry. BBVA provides a perspective on how CF is a potential disruptor of Bank´s current business and what decisions big financial institutions as incumbents should make vis a vis this threat. Deutsche Bank concentrates on risk identification and assessment in order to protect individual investors, in a manner similar to that of the World Bank and offers suggestions for regulators. Goldman Sachs provides context for the expansion of the CF phenomenon as well as specific quantified projections about the impact of CF in banks´ P&L.

Investigations about Spain´s CF market conducted by the market research agency Two Much were consulted for insight on funders´ motives to contribute to CF campaigns in Spain. Its reports about the platform Lánzanos as well as Spain in general analyze in depth the capital providers form multiple sociodemographic variables and result in valuable portrait of reward CF funders (Two Much, 2014).

As a result of the literature review conducted thirteen relevant factors considered as first level constructs or antecedents of five main second level constructs have been identified to potentially influence in a significant manner in the decision to adopt ECF. The model proposed uses a multidisciplinary approach in an attempt to

capturing a rich understanding of the ECF phenomenon by jointly studying it from the different perspectives: technological, financial, social and physiological.

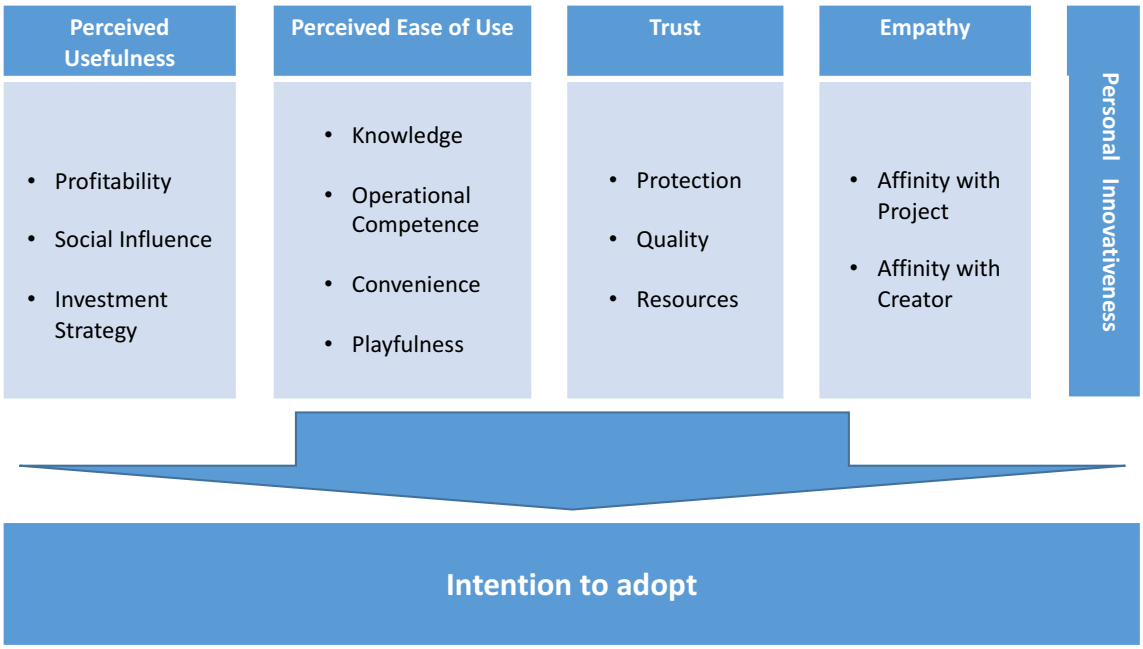
Regarding technology, the Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) constructs capture the technology adoption component that ECF implies, based on components of the TAM model applied to the goal of this research (Venkatesh & Bala, 2008).

On the financial side, the online finance component is represented under Trust, in an attempt to include factors relative to the project funding (Ahlers et al., 2015) as well as to the investor role of backers, from an extrinsic perspective of returns (Deci & Ryan, 1985).

Empathy attempts at capturing the social intrinsic motivation that CF entails and is present in the RCF model, with the intention to investigate the extent of its potential influence in the case of ECF (Gerber & Hui, 2013). The liaison of funders and backers as members of a community with mutual interest is analyzed in this construct.

Personal Innovativeness is included in the model with the aim of analyzing the extent to which this psychographic characteristic of potential funders activates their actions towards embracing the change that ECF entails (Arts et al., 2011; Limayer et al., 2000).

Figure 5: Theoretical model about the adoption of equity crowdfunding

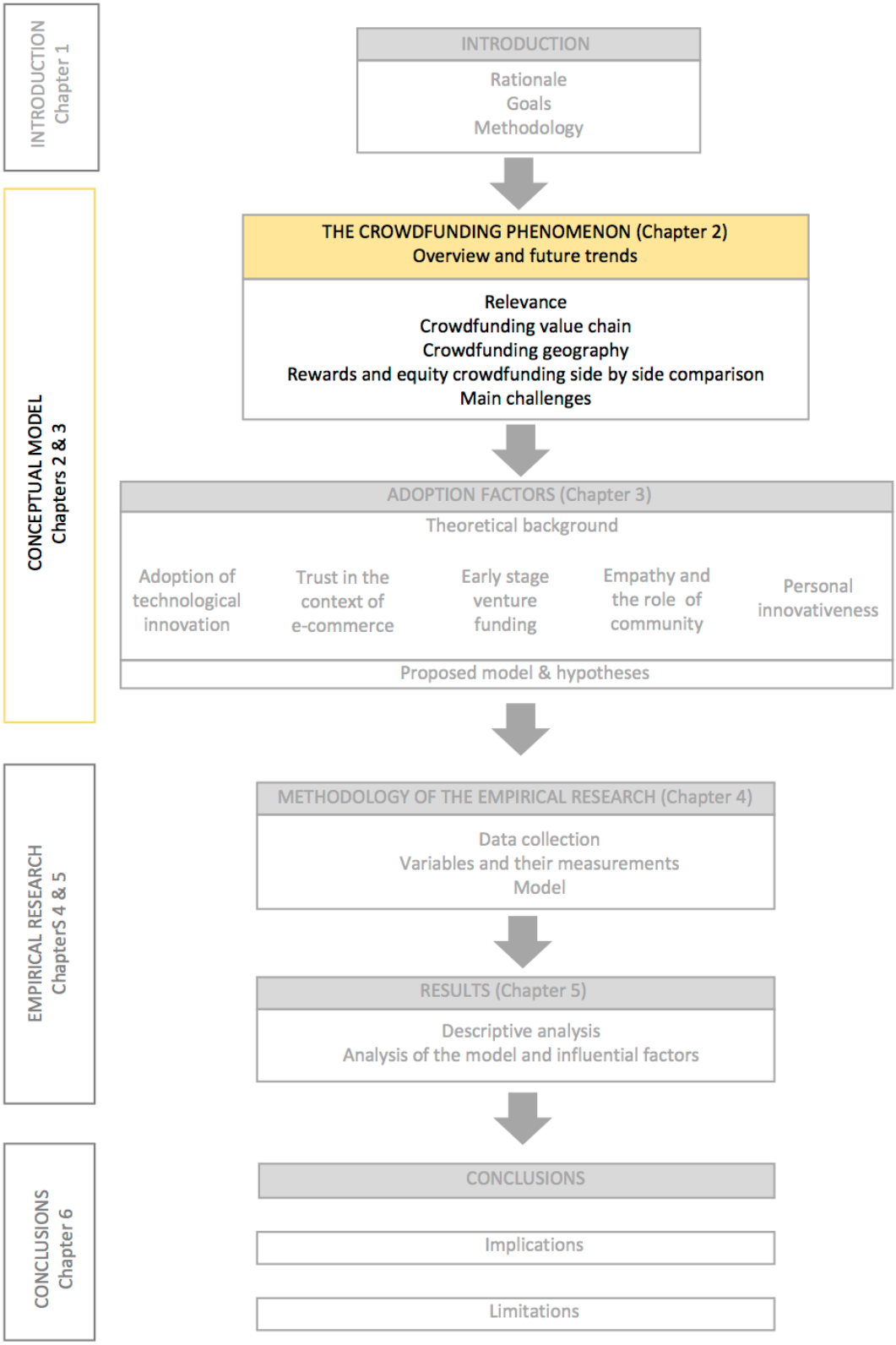


Source: Author

As a result of the literature review research gaps have been identified in the emergent ECF arena, of which the quantitative methodology, as well as the technology perspective and the funders´ point of view will be the utilized in this research.

In addition, the research venues analyzed have provided with factors and second level constructs that will be explored in an attempt to propose a model that explains ECF adoption.

Due to the novelty of the CF concept, and in order to provide with an ample perspective of this phenomenon, the next chapter will be dedicated to an introduction of the concept and its main features.


INTRODUCTION Chapter 1
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INTRODUCTION
Rationale
Goals
Methodology
THE CROWDFUNDING PHENOMENON (Chapter 2)
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Crowdfunding geography
Rewards and equity crowdfunding side by side comparison
Main challenges
ADOPTION FACTORS (Chapter 3)
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Adoption of technological innovation
Trust in the context of e-commerce
Early stage venture funding
Empathy and the role of community
Personal innovativeness
Proposed model & hypotheses
METHODOLOGY OF THE EMPIRICAL RESEARCH (Chapter 4)
Data collection
Variables and their measurements
Model
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Limitations

2. THE CROWDFUNDING PHENOMENON: OVERVIEW AND FUTURE TRENDS

In this chapter, an overview of the main aspects CF is conducted, with the aim of establishing the basis for a better understanding of the context in which this research is carried out.

The first section starts by analyzing the trends that influence the emergence of CF in the technological, social, financial and innovation aspects. Subsequently, different reasons that justify the relevance of the CF phenomenon based on its numerous contributions to economic growth and the promotion of innovation are studied.

Secondly, the CF value chain is presented by a thorough examination of the process and its main stakeholders. Motivations of creators and funders for being involved in this activity as well as platforms and different types of CF are explored.

In the third part the geographical progress of CF is analyzed starting from a worldwide perspective and zooming to Europe and then Spain, where the quantitative study is conducted.

Afterwards, a side by side comparison of the two CF types that are the scope of this research is carried out: RCF and ECF. The differences between both categories in aspects such as the degree of risk implied, type of projects mainly funded, degree of professionalization and among all, motivations for funders to back projects, provide with background to assess the challenge implied in transitioning from RCF to ECF.

The chapter ends by suggesting the challenges for future development of ECF and how the present research aims to contribute with suggestions for its main stakeholders.

2.1. RELEVANCE

In 2012, MIT Technology Review nominated CF as one of the 10 Breakthrough technologies for being “An alternative to angel or venture capital investment that helps fund tech startups” (Greenwald, 2012). This was a public recognition of an emerging phenomenon that had developed in the previous years. The term crowdfunding was first used in August 2006 by Michael Sullivan during the launch of his failed Fundavlog project.

Access to financing for SME´s had become increasingly difficult as a consequence of the financial crisis started in 2007. Therefore, Silicon Valley’s Venture capitalists looked for alternatives to traditional sources of finance and CF was the answer (Best, 2013). CF is the result of a perfect storm where technology in the form of payment methods and social networks met the financial industry in a context of deteriorating reputation while coexisting with the emergence of the sharing economy. The result was a new process that distributed the financial risk amongst the crowd, thus enabling creators to turn their projects into reality in an unprecedented manner.

CF involves an open call, mainly through the Internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward to support initiatives for specific purposes (Belleflamme et al., 2013). It is widely accepted that the distinctive features of CF are the call to general public and the interactive technology provided by the web as a critical element in providing access to the crowd.

The concept of crowd was popularized by the journalist James Surowiecki both in his literature as well as in his conferences (Surowiecki, 2004). However, Gustave Le Bon was the first author to divulge it (Le Bon, 1897). This author described the three processes caused by the crowd: anonymity, that generates in the individual a feeling of invulnerability and loss of responsibility; contagion, that passes on the mass behavior in which personal interest is sacrificed for the collective interest, and

suggestion, through which contagion is achieved, and turns the crowd homogeneous, vulnerable to the influence of its strongest members. The three processes are present in herd behavior and all of them impact how crowdfunders react to project proposals.

The CF phenomenon appears as the confluence in time of diverse transformative trends in the fields of technology, community, finance and innovation management.

From a technology perspective, the emergence of CF is connected to the adoption of technology, as well as to digitalization. In relation to the latter, CF implies a materialization of the digitalization phenomenon in the process of financing ventures (McAfee, 2006). However, since the focus of this research is the funder´s perspective, the technology adoption angle was considered as more adequate for this purpose. An in-depth analysis of the technology adoption theories and in particular the TAM model utilized in building our model, is conducted in chapter 3 dedicated to the theoretical background (Davis, 1989).

In relation to the impact that technology has in the rise of CF, the possibility of conducting transactions online enabled the transition from face to face shopping to e-commerce, that is in the foundation of CF. Furthermore, the possibility of carrying out ecommerce payments online that is a core component of the CF process, generated a substantial improvement in the customer's experience by being able to do so in a more flexible and convenient manner. The impact of these enhancements in the intention to adopt CF will be further analyzed in the ease of use variable of our model.

As a second manifestation of the technological impact, the interactive web 2.0 enabled bidirectional conversations between customers and companies that transformed the role of clients towards a more proactive one: from target of sales, towards information source, producer, value co-creator, and finally, investors in the case of CF (Ordanini et al, 2011). This empowerment of consumers implies the need

of considering aspects related to their level of preparation, as well as the necessary protection against potential fraud.

Thirdly, the two-way online communication above mentioned facilitated the development of social networks that connect individuals with similar interests and are based in different geographical locations. Hence, virtual communities appear that in the case of CF facilitate the identification of projects in accordance with their common beliefs and to which, as a consequence, the members of the community are willing to contribute. These aspects are considered as part of the social influence on potential contributors in aspects such as herd behavior and affinity with the project.

From a community viewpoint, the impact that the 2007 financial crisis had in the deterioration of households´ income, promoted their search for support from the social group in order to face adversity, thus increasing the sense of community and social capital (Fukuyama, 2001). This environment of increasing importance of the community favored the emergence of the collaborative economy, a system through which consumers increasingly replaced the purchase of products by their share (Botsman & Rogers, 2010). In this sense, CF appeared as a manifestation of the sharing economy in the form of a system that allowed project creators to obtain the necessary financial resources form individuals within their community, in exchange for rewards related to their projects. This community component is analyzed in depth as part of the adoption factors in chapter 3.

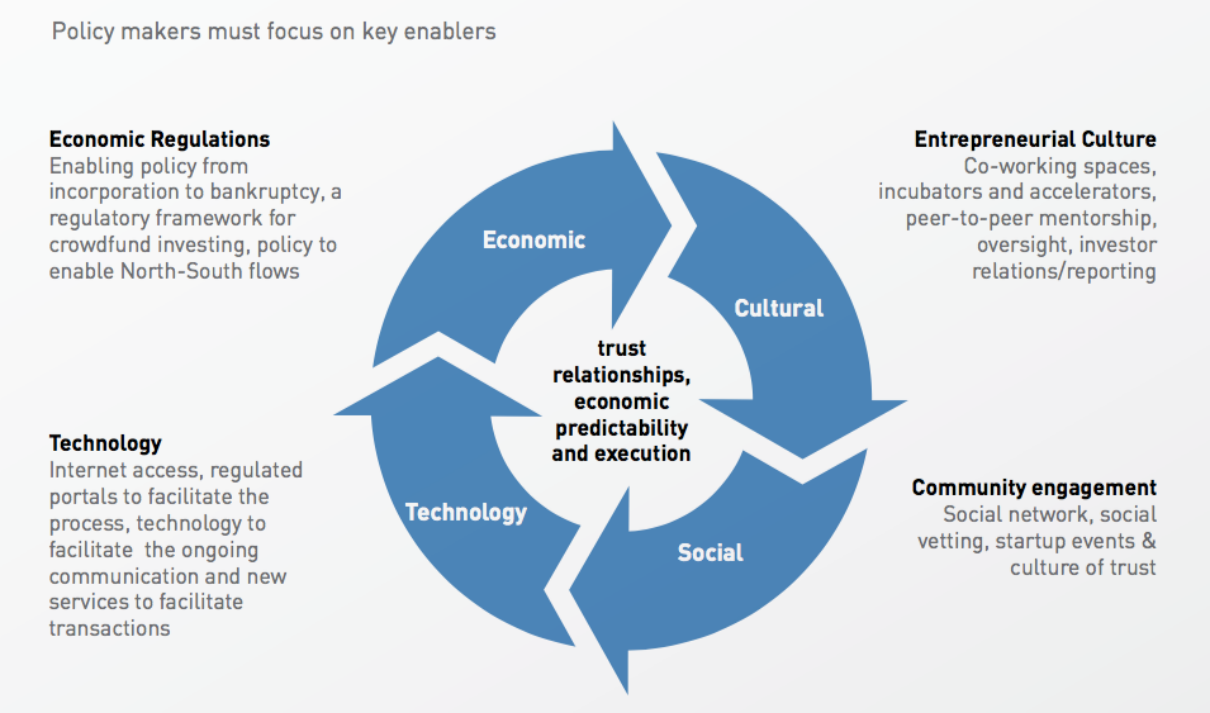
On the financial side, the 2007 crisis was a shock for small businesses and new projects, since they saw their access to credit drastically reduced (De Buysere et al., 2012). Subsequently, CF emerged as a new model that provided the necessary financial resources, thanks to reducing the risk by distributing it among many funders that contributed with small amounts, rather than concentrating it on a few. The model proposed in this thesis attempts to unveil wether the criteria that influence the decision to adopt CF by these small funders is in line with that of professional investors, as opposed to a more intrinsic one.

Lastly, and regarding innovation management, open innovation and in particular crowdsourcing is in the origin of the CF model. In crowdsourcing, companies open their processes in search of resources not available internally (Chesbrough, 2006). From t-shirt designs, as in the case of Threadless (Lakhani & Kanji, 2008), to scientific challenges in Innocentive (Howe, 2006), crowdsourcing provides the potential to contribute with solutions that are superior in their degree of innovation (MacCormack et al., 2013). In this sense, CF appears an evolution of crowdfunding where the crowd takes one further step in supporting in the project by providing with funds.

Consequently, the trends analyzed above: technological, social, financial and innovation models, converge in time and generate the rise of CF. Therefore, when trying to identify the factors that influence the adoption of CF, the most relevant academic theories in each one of these fields are analyzed in chapter 3.

It is not by chance that the rise of CF started in the United States where the innovation ecosystem enjoyed a favorable situation, as will be further analyzed in this document. In fact, and given the demonstrated positive influence of CF in the economy, the World Bank recommends developing countries the implementation of certain elements that enable the advancement of CF: an entrepreneurial culture that supports entrepreneurs, technology that enables operations and supervision, economic regulation that supports entrepreneurship and community engagement in the form of sharing and networking (see figure 6). In addition, the World Bank adds trust among all stakeholders as a prerequisite to all the above, an element that will be analyzed in depth in this document.

Figure 6: Four elements of a robust crowdfunding investment ecosystem



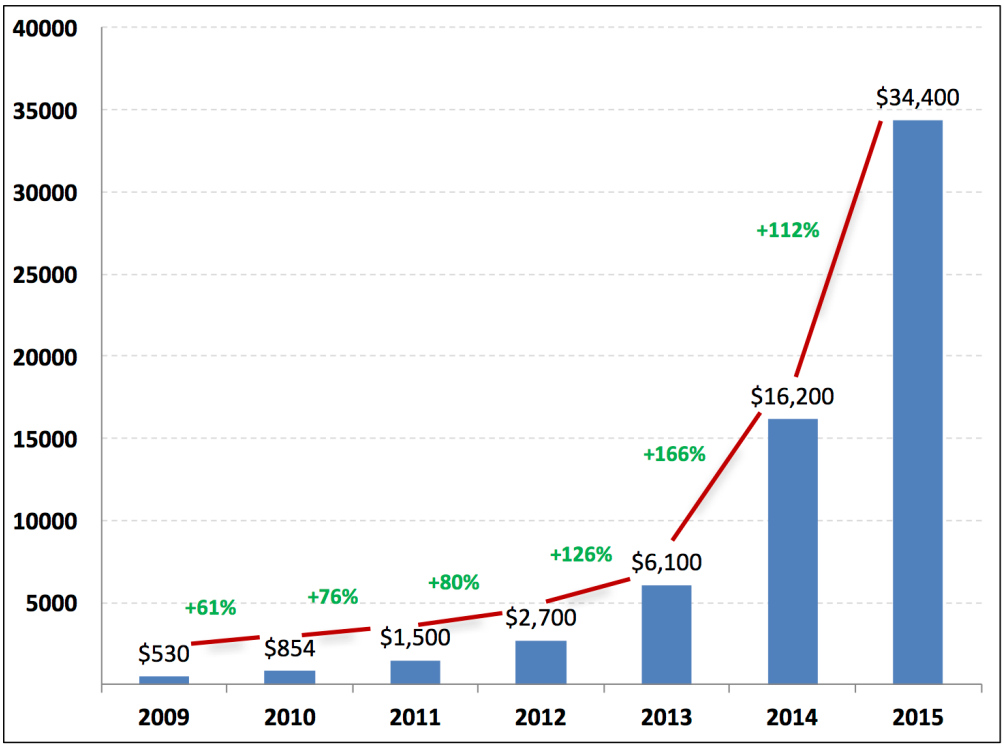
Source: World bank, 2013

In recent years CF has grown exponentially and this trend is expected to continue in the near future. The reasons behind this growth are: the innovation in the CF service itself that has evolved from donation to rewards, equity and lending types, thus becoming the financing provider of an increasing part of the business life cycle; influence of millennials and their new mentality, to whom the CF allows to participate proactively in the projects and to influence directly those in accordance with their values; the viral potential of CF that is transmitted through social networks as a communication vehicle between creators and investors; strong network effects as the increasing numbers of creators that post their campaigns in CF platforms increases the number of backers that fund them and subsequently reinforces new creators to publish their projects; and the evolution occurred in the regulatory framework in supporting new ventures while protecting investors, in particular via approval of equity crowdfunding legislation (Goldman Sachs, 2015).

For the reasons described above the popularity of CF has increased and its volume has multiplied by almost 40 worldwide between 2010 and 2015. The growth rate

accelerated year-over-year from 2009 until it peaked in 2014 at +166%, still recording a 112% increase the following year (Massolution, 2015). Figure 7 visualizes the year-by-year evolution of the worldwide CF market.

Figure 7: Worldwide Crowdfunding Market ($ Million)



Source: Massolution, 2015

The growth of CF follows a pattern that reminds that of disruptive innovation in the sense of the theory developed by Professor Clayton Christensen since this new model begun catering a market segment previously underserved by the traditional financial institutions (high risk small projects and early stage startups), while little by little is reaching mainstream (Christensen, 1995).

Moreover, its influence is progressing strongly, to the extent that it is estimated that CF could immediately capture an important portion of the incumbents' market for

financing new ventures that today is conducted by means of credit cards, mortgages, personal loans, venture capital and angel investment. As an example of its business potential in the US market, the volume that CF could seize immediately is appraised to be close to $1.2 T, based on an estimation that takes into account the experience suffered by other previously disrupted sectors such as ecommerce and travel where an average 20% of the former profits went to the disruptor. In the case of other financial services, estimated amounts would be $400 B for wealth management and $30 B immediately captured in payment services (Goldman Sachs, 2015).

In addition, CF is considered part of a larger category of innovative companies defined as fintechs. Fintechs are technology-based companies focused on specific segments of the finance value chain that offer an online user experience similar to the one provided by ecommerce companies like Amazon. Therefore, CF platforms would be fintechs specialized in small loans. Given the ability of fintechs for providing financial services in an efficient and convenient manner that is particularly appreciated by millennials, they are expected to cannibalize between 29 and 35% of incumbents´ revenues (Mckinsey, 2016).

Consequently, although the initial purpose of CF was to fill the funding gap of startup ventures during the past financial crisis, once launched this new model is here to stay since it offers advantages such as allowing creators to obtain funds faster and at a lower cost than through traditional financial providers. As a result, CF today is considered by creators as an appealing form of funding projects alternative to business angels (BA) and Venture Capital (VC) in the past (Dealindex, 2015).

In fact, CF´s estimated $34 B mentioned earlier exceeds the volume of both Business Angels (BA) and Venture Capital (VC), $30 B and $20 B respectively as published in Forbes Jun 9, 2015. In fact, the three sources of funds complement each other to the extent that in a survey conducted with UK creators 3 months after having conducted a successful CF campaign, 71% of them were in negotiations to or had already obtained funds from BA and VC.

Figure 8: Estimated crowdfunding volume compared to other sources

Source: Forbes. Accessed online April 11, 2017.

Large banks have not been very proactive towards CF´s business so far. In some cases banks have set up their own CF platforms, but they usually focus on donations and carry out little activity. One example is BBVA´s SUMA platform created in 2013, dedicated to channeling funds to NGO projects with social orientation. In other cases, banks have signed agreements with existing platforms as part of their social commitment, such as the partnership signed by Banco Santander and the CF equity platform Fundable in October 2016, by which the bank commits to provide £200,000 to fund projects that have social purpose. An alternative model consists on providing CF to the bank´s customer base through a third party platform as a service, such as the agreement signed by ING Belgium with ECF's Seedrs and RCF's KissKissBank (Silva, 2015), as well as the agreements with lending platforms signed by Santander and FundingCicle (Moules, 2014) and Citibank with Community Lending (Hurst, 2015).

It thus seems that banks are becoming familiar with the CF business model prior to stepping into this territory. The question is how long can large financial institutions stay out of this new activity, lending in particular. Some professionals acknowledge the challenge involved in shifting traditional risk analysis to a crowd-based model; however, it could also be seen as an opportunity to add a fee based product to their catalogue, becoming closer to startup ventures and enlarging the customer base to

include millennials by means of reinforcing their public image as transparent and customer centric organizations.

The significant indent made by CF in the financial scene can be explained by the contribution of this new business model to the economies in which it is implemented, the most relevant of which are analyzed below.

In the first place, thanks to technology that provides access to many small investors, CF enables certain projects to reach the market that would otherwise not have made it; it is the so-called "democratization of finance" (World Bank, 2013, Dealindex 2015). As an illustration of the potential of CF to promote business activity, in a survey conducted amongst companies funded in Kickstarter, 59% of the creators had considered CF as a first step to launching their business, 90% of the companies were operating years later, and 32% of them reported revenues above $100,000 (Kuppuswami & Mollick, 2014).

Secondly, CF fosters innovation in multiple manners:

- Accelerate the launch. By making it easier and faster to obtain funds, CF shortens the development cycle and allows projects to get to the market earlier. Also, by means of pre-purchase, CF enables adoption and difussion of innovations prior to their launch. (Scholz, 2015)
- Market test. Committing funds denotes acceptance of the product far beyond a response to a survey. Customers willing to fund projects get involved with them in a new and more committed manner: they transition from mere consumers to co-creators and funders (Ordanini et al., 2011).
- Provide feedback. The CF´s model is a type 3 open innovation in the sense that it opens the central part of the innovation funnel to potential contributors (Escudero & Goytre, 2015). Creators share their ideas with potential backers for validation; research form Stanko (2016) posits that the more updates creators share, together with the earlier in the product development cycle the campaign, and the more open to feedback, the more innovative the final product is.

- Enable learning. CF is often used by creators as an attempt to learn how to operate in the new environment and is widely advertised as a key added value by platforms (Kickstarter, 2015). Learning is obtained even in the case of failure since errors from one campaign are lessons for the next one (Escudero & Goytre, 2015).

Due to its potential for innovation the scope of CF has extended beyond small ventures to large corporations in their product development endeavors. As an example, Unilever has reached an agreement with Indiegogo with the aim not only to crowdsource ideas but also accelerate their market implementation while conducting consumer validation. “The enterprise-crowdfunding partnership will accelerate innovation to help Unilever validate and create consumer-championed products and support sustainable solutions from ideation to development” (Sustainable brands, 2016).

As a third contribution of CF to the economy, the use of technology and social media allows creators to break down barriers and brings them closer to their potential customers:

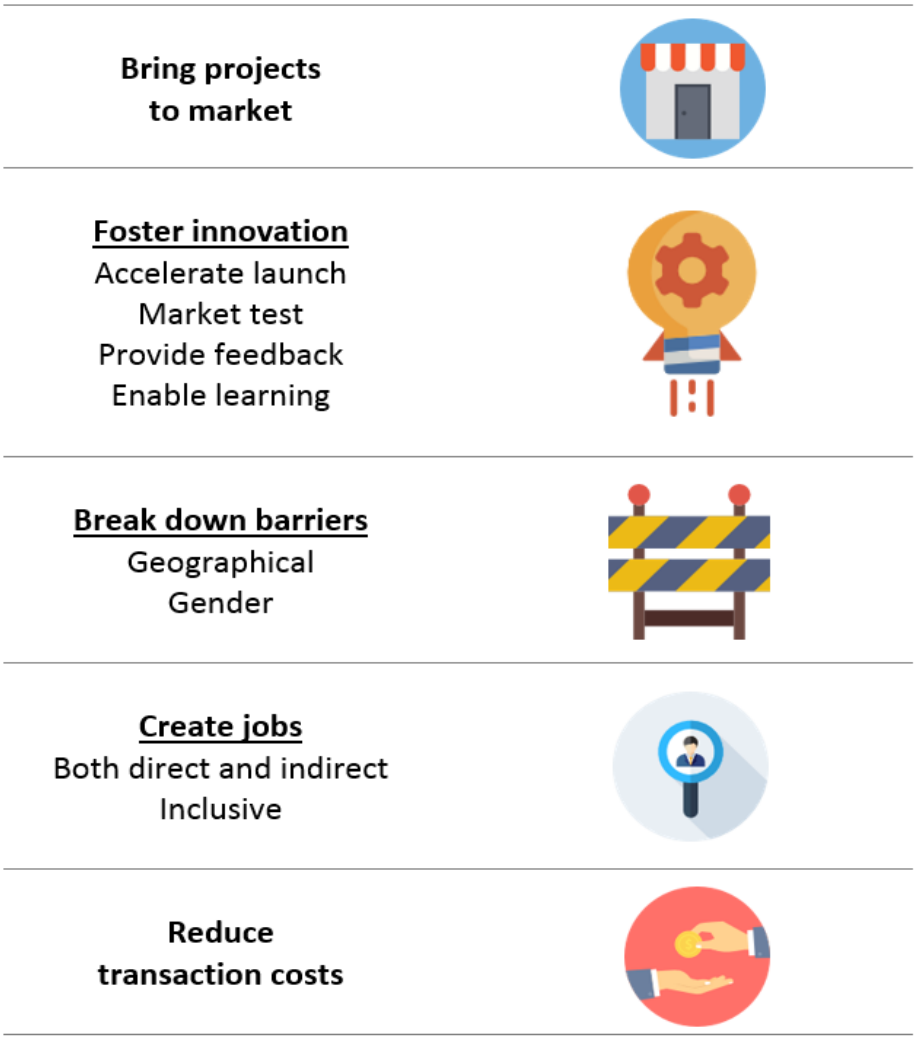
- Geographical proximity. CF transcends geographic barriers since support is provided to projects regardless of their location. Research form Agrawal et al. (2015) posits that, although local funders are often the first to contribute and the least influenced by the behavior of others, CF brings in additional funders and increases the average distance between talent and money to 3,000 miles. This is the reason why some platforms were created, such as i.e. Indiegogo, whose CEO Danae Ringelmann, left Wall Street with the aim of moving closer artists and financiers (Rigelmann, 2011). In fact, the impressive geographic reach of platforms such as Indiegogo allowed Vortex, one of the companies interviewed for this project, to obtain support from contributors located in South Orange NJ that is located 3,600 miles away from the company´s headquarters in Madrid.

- Gender proximity. CF contributes to reduce the diversity barriers in the case of women where, surprisingly, women creators receive support in a much higher percentage than men. This finding, which appears to be contrary to what happens in the case of lending in general, is due to the existence of a group of women activists who support the projects of other women, thus making CF an exception to the rule (Greenberg & Mollick, 2014).

Fourth, a fundamental contribution of CF to the economy is job creation, especially relevant in an environment where this is a priority for all governments. Based on a survey of entrepreneurs who had successfully financed CF campaigns, 87% of them had or were planning to hire employees (C.C. Advisors, 2014). In addition to these direct jobs, often qualified and technology related, CF is estimated to generate an equal number of indirect jobs of all kinds of qualifications, from restaurant employees, cleaners, security guards to employees of marketing services providers (Ramos, 2016). Furthermore, by generating diverse types of employment, CF contributes to the inclusion of individuals from vulnerable labor groups (Baeck, Collins, & Westlake, 2012).

And last, by leveraging the web technology, matching entrepreneurs with funders and reducing risks, CF platforms reduce transaction costs for both creators and backers (Assadi, 2015). A summary of the main contributions of CF to the economy is visualized in Figure 9.

Figure 9: Crowdfunding contributions to the economy



Source: Author

Although CF provides numerous benefits for the economy as above described, it also poses risks, since in some cases projects end unsatisfactorily due to a number of reasons.

As for campaigns, there is an important percentage that do not achieve the funding goal. For example, Kickstarter declares a 35% success rate in its web page, which implies a large percentage of cases where projects are discontinued.

Another criticism towards CF is that, although most creators deliver the promised rewards, they are often late; in a research based on a sample of 48,500 RCF campaigns, 75% of the rewards were delivered late, and 3.6% of them were never received (Mollick, 2014). Overfunded projects were found to be the ones that were most commonly delivered late, on average more than 2 months later than the initially indicated date.

Sometimes project creators advertise impossible campaigns, in which they never intended to deliver what was promised. The first report of a fraudulent campaign was presented in 2015 to the Federal Trade Commission (FTC) against the board game "The Doom That Came to Atlantic City" that was never distributed, and whose creator was later found to have spent the funds in other activities.

On other occasions, products with false qualities were promoted: for example, Tritor, a device sold as an artificial gill that enabled humans to breathe under the water; or Zano, a drone that was supposed to follow its owner. Although in some cases the wisdom of the crowd detected the fraud, when it did not, CF platforms did not cover the risk (Loria, 2016).

As for management issues, in 2016 the CEO of the crowdlending platform Lending Club resigned due to bad practices in loan accounting and undisclosed personal investments. This event was a worrying alarm for the emergent CF industry (Popper, 2017).

From a legal perspective, a concern exists about the potential use of CF as an instrument for money laundering. In 2015 the European Securities & Markets Authority (ESMA) warned about the risk of platforms not conducting the necessary due diligence about projects and their creators. In order to mitigate this risk, ESMA suggests platforms to be operated under the restrictive framework of the Markets in Financial Instruments Directive – MiFID- (Alois, 2015).

Lastly, and similar to the above situation, the use of CF to raise funds for political parties is under scrutiny regarding its transparency. Since all that is required to provide funds to a CF campaign is a valid means of payment, donors are not necessarily identified and as a consequence this process was forbidden in the primary elections for the Socialist Party of Spain (Pérez Colomé, 2017).

In this section, an overview of the impact that CF is having in the financial services industry, as well as its main contributions to economic development and potential drawbacks, have been conducted. The next part is dedicated to study the CF value chain, with the aim to dig into the process, its stakeholders and the interactions among them.

2.2. CROWDFUNDING VALUE CHAIN

So far the emergence of CF at the confluence of technological, financial, social and innovation management trends, has been analyzed, as well as its numerous contributions to the economy.

The review of the CF phenomenon conducted in the previous section suggests that it could have a disruptive potential in the financial services industry (Christensen, 2013): CF started serving the lowest segment of the market by providing funds to high risk projects of little interest to Banks, but is advancing strongly by capturing market share from incumbents, and becoming a competitor to be watched (BBVA, 2013).

In addition to the above, the approval of ECF implied an intensification in the volume growth since both overall campaigns as well as average contributions to this modality are larger than those of rewards or donations (Massolution, 2015). Furthermore, the ECF activity implies competing with banks in their core activities of lending and investment.

Therefore, this research intends to assess the potential impact that ECF might have in the financial services activity. For this purpose, RCF funders will be interviewed since this is the modality most utilized by household backers at the time of this research. By analyzing the factors that influence the decision to adopt ECF by RCF contributors, guidance could be provided for practitioners and academics.

In this section the CF value chain is identified as an essential structure that allows to assess the role played by the main actors involved, and to reflect the dynamics of this activity.

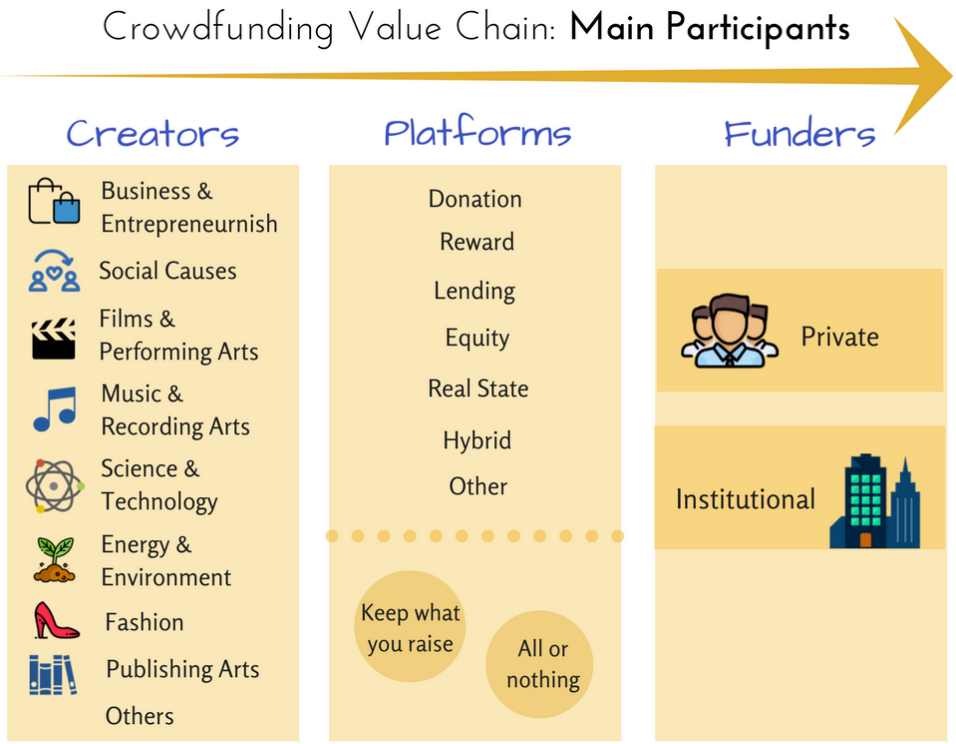
CF is conducted in an ecosystem whose stakeholders are creators, platforms and funders, all interconnected thanks to the web technology. This three-party structure

represents an innovation in relation to traditional two-party approach: creators and banks. The main contribution of CF is to reduce the risk by distributing it in smaller units, undertaken by each of the funders, vs the traditional approach where all the project risk was undertaken by the financial institution/s that acted as lender/s. This distribution of risk allows creators to launch projects that would not have found financial backing in the past.

In this section the relationship between stakeholders during a CF campaign will be analyzed in detail. In order to illustrate the CF process, in the last part of this section an ECF campaign will be described step by step since analyzing this type of CF is the main object of the present investigation.

Figure 10 describes graphically the value chain of the CF process and identifies its main participants:

Figure 10: Crowdfunding Value Chain



Source: Author

According to Schweinbacher & Larralde (2010), three main stakeholders form the CF ecosystem:

- Creator: person or subject entity that has an idea and launches a project on the platform. The scope of CF projects is broad, from social causes to fashion. CF Creators' reasons to fund their projects via CF will be reviewed.
- Platform: the website that links creators with projects and potential funders. Platforms will be analyzed from two perspectives: the type of CF conducted and the criteria used in relation to the achievement of the monetary target of the campaign.
- Funders: individuals or institutions that contribute financially to projects launched by others. This research will focus on the former and more specifically on individual RCF funders trying to uncover their motivations to support ECF campaigns.

Hereinafter each of the three stakeholders as well as the dynamics among them are analyzed in detail

2.2.1. Creators

Creators raise funds in order to launch a project. CF was initially focused on non-profit initiatives, but subsequent evolution has made businesses the number one funded activity (Massolution, 2015).

The reasons that lead project initiators to the adoption of CF are analyzed next. As part of this research examples are provided from interviews conducted with solicitors.

The main reason for creators to the use CF is the need to raise funds for their initiatives by closing the finance gap (Fraunhofer, 2011). In this regard CF enables contact between project initiators and communities of individuals with whom they have common interests, who subsequently understand the value of the venture advertised and are willing to fund it (Gerber & Hui, 2013). For artistic activities whose

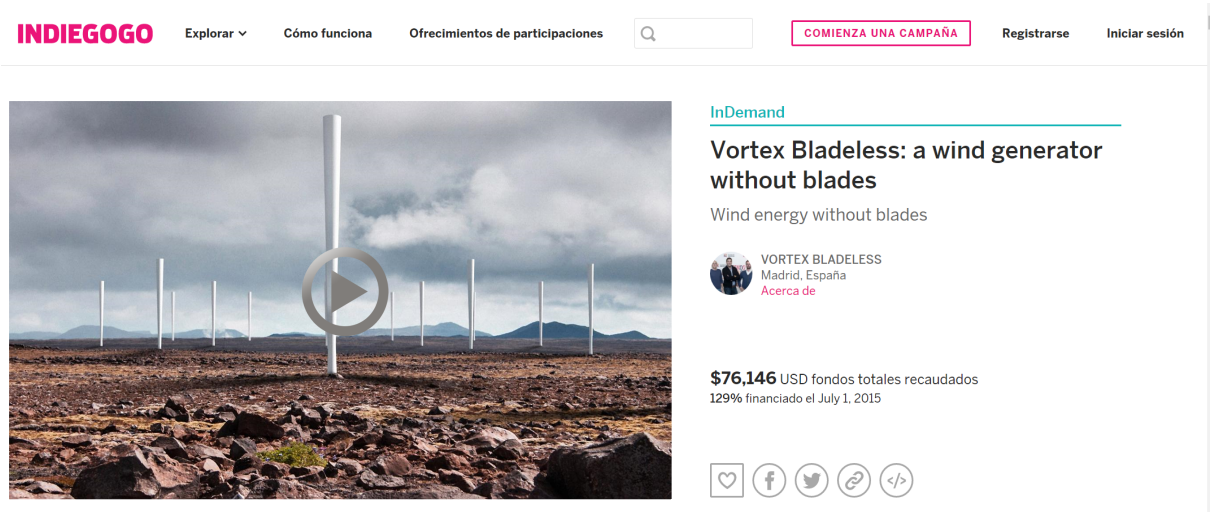
return is not necessarily financial, CF enables projects to come true. An example from one creator interviewed for the present research, the musical duo La Inégalité managed to finance the recording of their first classical music album by conducting a RCF campaign that surpassed by 201% the requested 1,900€. As an exchange for the contribution and depending on the amount provided, the duo sent rewards that ranged from online access to the musical work to private face-to-face concerts. In this way CF allowed to finance a project framed in an activity like classical music that has few possibilities of obtaining funds from traditional sources.

Figure 11: Information about La Inégalité campaign after closure

Source: Lánzanos web page

The need to extend the awareness of their work is another reason that encourages entrepreneurs to use CF since the larger audience accessed increases the impact of its marketing campaign (Burtch et al., 2013; Mollick and Kuppuswamy, 2014). By advertising the campaign in Indiegogo, which is one of the most active RCF platforms worldwide, the creators of the bladeless energy generator Vortex -interviewed for this research- pursued the strategy of increasing its visibility, extending the scope of the initiative worldwide. The attention reached by this campaign allowed it to exceed the monetary goal by 129% accessing contributors from a wide range of locations.

Figure 12: Information about the Vortex campaign after closure



Source: Indiegogo web page

Create a community of long term connections is another reason for creators to use CF. Since they share similar interest, community members contribute with their ideas to improve the product while increasing the probability of providing funds in the future when needed. As an example Javier García, the promoter of a new wine called Garnacha Vella, was able to engage a community of supporters not only for financing the production of the first vintage of his wine but also for the second one conducted two years later.

Figure 13: Information about the Garnacha Vella campaign after closure

Source: Lánzanos web page

Very often creators want to keep control of their project and CF helps them in this respect. By not relying on the funds of a large investor like incumbent financial institutions, promoters have the independence of deciding any aspect of their creation which is particularly relevant in the case of artists who want to preserve the original spirit of their work. Alfredo Alegría, another creator interviewed for this research, was particularly pleased to be able to shoot a movie based on his successful short film “Mensaje Post-itivo” in the exact manner as he originally conceived it, without having to compromise any portion of his creativity.

Figure 14: Information about the Mensaje Post-itivo campaign after closure

Source: Lánzanos web page

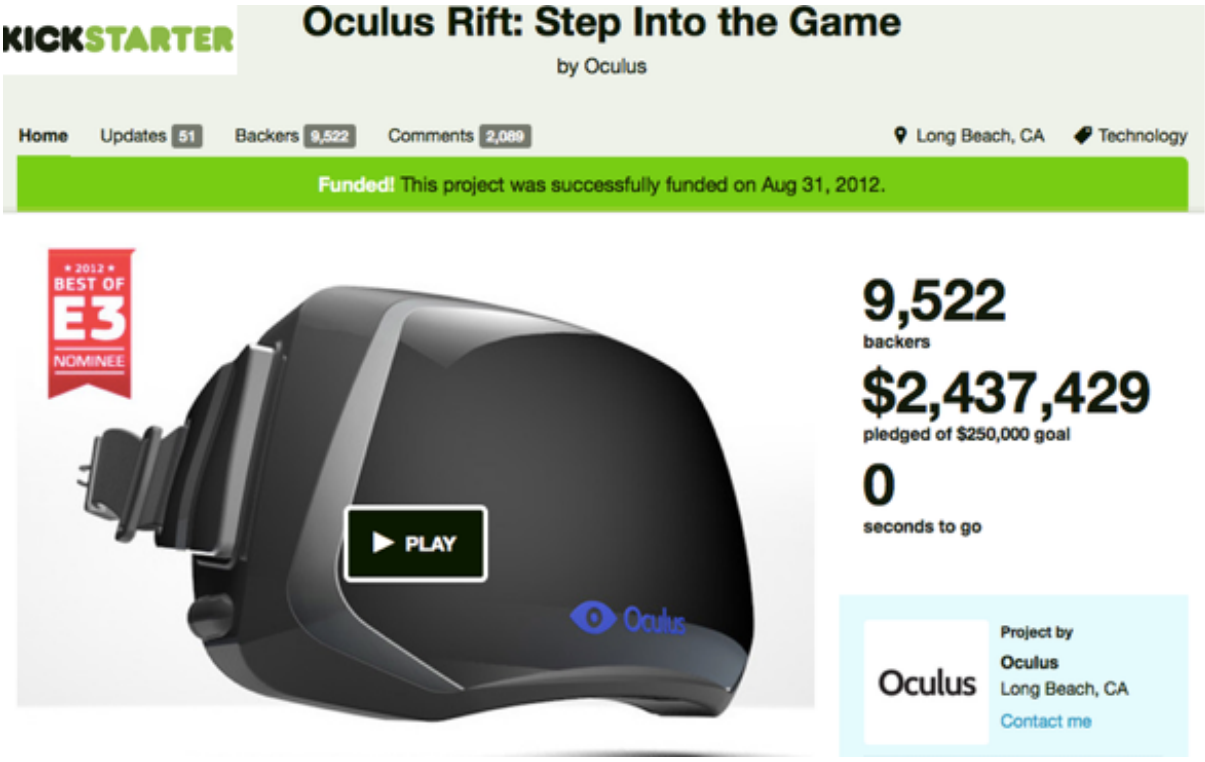
Entrepreneurs also use CF in order to learn new ways to communicate with potential customers and also to get to know their tastes. Conducting CF campaigns involves effectively managing communications on social networks, shooting videos, and communicating concepts clearly to the audience. The founders of the garment company Ninto Jeans understood the importance of effective communication through social networks prior to launching the CF campaign, as well as interpreting the concepts that attracted potential customers to buy their pants. Their first campaign was unsuccessful but what they learnt was then utilized in future management of the venture.

Figure 15: Ninto Jeans advertising

Source: Ninto web page greenandtrendy.com

The co-creation with potential customers involved in the process of launching an initiative through CF is frequently sought by creators. Products as notorious as Oculus glasses or Pebble watch have been in some portion the result of the inputs provided by funders of their subsequent versions over time. In this regard crowdfunding is considered as a type 3 open innovation process in which access is given to the central part of the innovation funnel to third parties, in this case to the funders. (Escudero & Goytre, 2015).

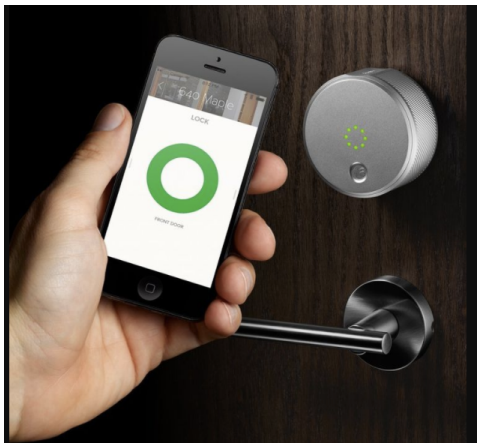
Figure 16: Information about the Oculus campaign after closure



Source: Kickstarter web page

Creators also use CF as an alternative market research to test market acceptance of their products or services. The contribution of funds by supporters implies a commitment that is stronger than an affirmative answer in a survey about the intention of buying a product (Ordanini et al., 2011; Martin 2012). Even big companies are using CF this way: for example, Sony campaigned on the Japanese Makauke platform under a fictitious name to test the acceptance of its innovative products E-paper FES (Fashion Entertainment) watch and Qrio intelligent locker.

Figure 17: Sony Qrio intelligent locker advertised in Makauke



Source: Pinterest

Up to this point, the main motives for creators to use CF have been analyzed and illustrated; figure 18 summarizes them.

Figure 18: Main motives for creators to use crowdfunding

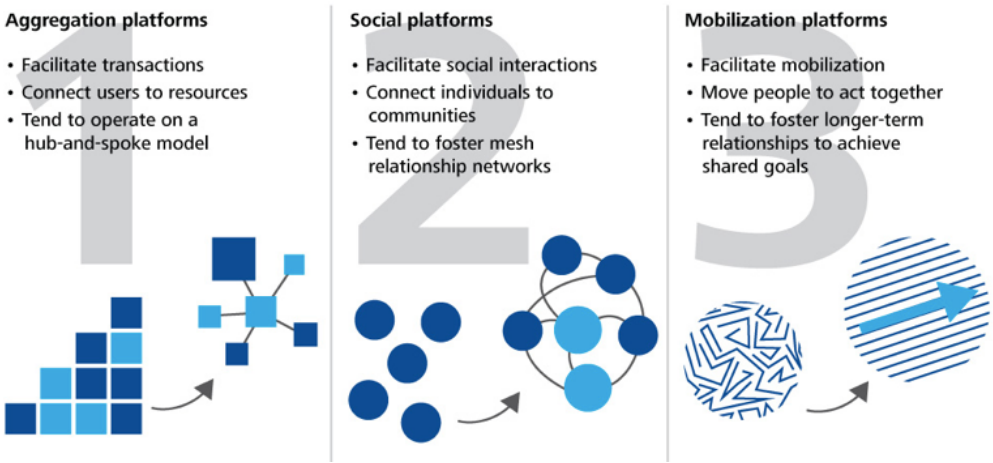
Source: Author

2.2.2. Platforms and crowdfunding types

The second group of participants in the CF ecosystem are platforms, that is intermediaries that supply the infrastructure and rules for the CF marketplace to connect creators with a large audience of potential contributors, with the aim of turning them into funders (Hewlett et al, 2016). CF Platforms create value for both project initiators and backers by providing tools (i.e. campaign videos) and services (i.e. payments) that reduce the barriers that prevent interaction among them. In the case of CF, platforms contribute to reduce the information asymmetry about the expected venture performance, available to creators when compared to funders (Ahlers et al., 2015).

CF platforms might be considered as a combination of the three most common types of platforms: aggregation, since they connect resources to conduct payments; social, since they create and strengthen community links amongst funders and funders; and mobilization, since they move backers to achieve the common goal of reaching the monetary goal (Deloitte, 2015). Exhibit xxx illustrates main features of the three most common types of platforms.

Figure 19: Common types of platforms



Source: Business Ecosystems come of age, Deloitte University Press, 2015

In addition to their main function in receiving and processing campaign payments, platforms provide services to entrepreneurs such as advice in setting up the social media marketing plan, help in formalizing the necessary legal requirements, and guidelines regarding rewards to offer in exchange for contributions. In addition, working with a platform as an intermediary allows creators to reduce costs and ease project management. (Berger & Gleisener, 2009).

Regarding potential funders, platforms provide a deal flow of projects among which to select those that suit their interests, most of which were restricted to expert investors in the past and therefore inaccessible to them. (Konana & Balasubramanian, 2005).

Platforms provide information about the evolution of contributions during the time of the campaign, which may promote herd behavior, which will be further studied in the analysis of the proposed model of this research, and in the discussion about the social influence construct. As a preliminary note, herding is observed in relation to the diffusion of responsibility (Kuppuswamy & Bayus, 2013), as well as in relation to the observation by amateurs of how expert investors act (Kim & Viswanatha, 2013). These behaviors determine the flow of funds towards to the project that varies in time according to an observed pattern (Ordanini et al., 2011).

Information provided by platforms thus influences investment decisions from potential funders, making a priority to build trust in these intermediaries which emerges as a necessary requirement to work in online markets (Balasubramanian et al., 2003). The trust factor as part of the proposed model of this research will be operationalized and its potential influence on the intention to adopt CF will be analyzed.

Along this line, regulators impose strict requirements for platforms due to the necessary protection of customers (Oxera, 2015).

The regulatory body in each country determines the requirements for platforms to be allowed to operate, including the scope of their operations, the size of the campaigns

advertised in the platform and the maximum amounts that professionals can contribute, which are different from those allowed to amateurs. A comparison of the various requirements that must be fulfilled by ECF platforms in different countries is detailed in a specific section in this document.

In relation to the monetary goals, platforms generally use an “all or nothing” criterion implying that funds are only provided to the creator if the target is reached; otherwise contributions are returned to funders. Although most campaigns follow this formula some platforms apply the “keep what you raise” criterion, that is, the creator has access to any amount collected even when the campaign target is not reached. When comparing the effectiveness of these two schemes, Wash & Solomon (2014) posit that “all or nothing” results in larger amounts than “keep what you get”. However, from the platform perspective, fewer number of campaigns end up reaching the goal if all are advertised at the same time.

The number of platforms registered worldwide has grown from 100 in 2007 to 1,250 in 2014 (Massolution, 2015). Between 2008 and 2012 the growth rate was close to 40%; moving down to around 20% from 2013 onwards, which seems to indicate maturity of this activity.

CF platforms operate using different business models that are determined by the way in which the funders are rewarded for their contributions. The main types of CF platforms business models are donation, rewards, equity, lending and real estate. The main characteristics of the basic CF are described in the following paragraphs (De Buysere et al., 2012).

- Donation. Funders contribute to a specific project, generally promoted by non for profit and social entities, without obtaining something in return. In general, donors increase their contributions when they can access up-to-date information about the evolution of the specific project of their interest. The motivation of donation funders is usually social or intrinsic, that is, without expecting any return; this is why donation together with rewards are called

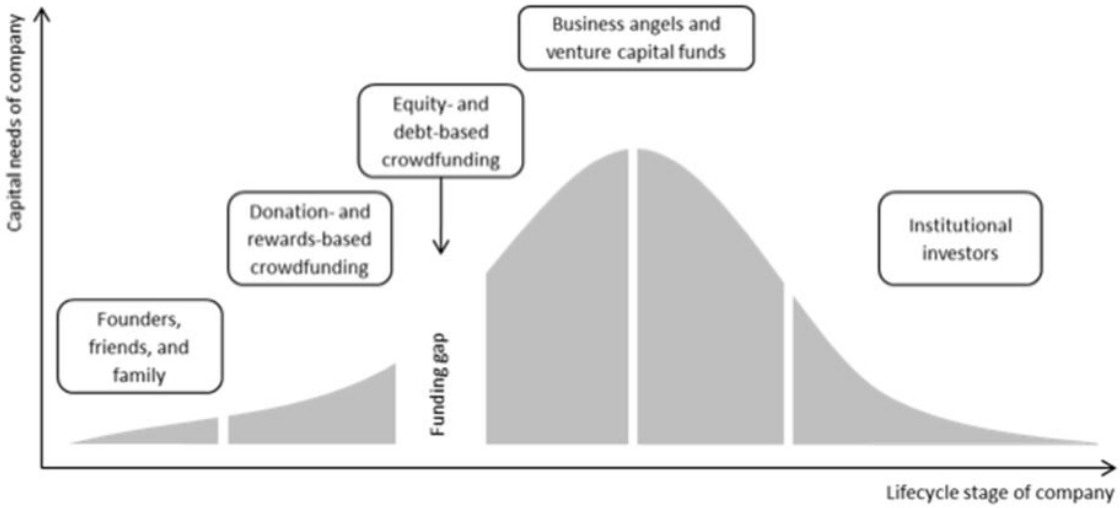
non-financial CF or the soft side of CF. Examples of donation platforms are Donorschoose, Donate now, Firstgiving and Justgive.

- Reward. Funders receive a product or service related to the campaign in exchange for the contribution. The compensation depends on the project activity as well as the amount contributed. In campaigns interviewed for this research, the minimum recognitions were a download of the musical work in the case of La Inégalité, access to an exclusive fans forum of the film Mensaje Post-itivo, a bottle of wine of Garnacha Vella or a mention in the Vortex web. At the other extreme the largest rewards consisted of a private concert, an invitation to join the movie production team, a visit to the vineyards and a box of wine, and a face to face technology gathering with Vortex founders including invitation to a Spanish paella cooked by creators. Rewards CF is utilized for funding the initial stage of ventures and in the case of artistic projects, to make them a reality, whereas in business projects the aim is to conduct concept tests or build prototypes. The largest rewards CF platform worldwide is the US based Kickstarter, that raised $2.96 B in 122,454 projects successfully funded from 12.7 million contributors, with its biggest campaign being Pebble watch that raised $20 million (Kickstarter website).
- Equity. Also called crowdinvesting. In exchange for their contributions funders obtain either a participation in the company, or part of its future cash flows. The expected return is based on some form of medium term exit. This type of CF is generally dedicated to finance early growth growth of companies in startup phase and usually bridges the gap between rewards CF and business angels' contributions. Since its regulation in most countries in 2014, when authors started analyzing why funders contribute to ECF, opinions diverged on whether it is financial or non-financial (extrinsic or intrinsic), as we will see in detail later on. CF equity funders seek potential return but also assume a potential loss, the risk involved in equity funding; this is why, along with lending, ECF is considered the hard side of CF or the financial CF. Exploring what leads funders to participate in ECF, in particular to those who have already used RCF, is the main purpose of this research.

- Lending. Also called crowdlending. Through this CF modality, a business or an individual receives funds from third parties who receive interest payments in return. In the case of companies, funds are often utilized for financing an ongoing activity while in the case of individuals funds are used to cover large expenses such as the purchase of a car or home repairs. This category includes p2p lending in which the platform intermediates between an individual who needs to borrow money and another one willing to lend it. Funders' motivation is assumed to be mainly financial or extrinsic; as an exchange default risk must be acknowledge, which is the reason why crowdlending is considered hard side of CF along with equity.
- Real Estate. Investors contribute to the development of real estate projects and obtain property returns from the results of their exploitation. Real Estate CF is a recent development and its volume is limited so far, but it is nevertheless gathering momentum. The platforms Crowd2let.com and Equity Brick are examples of this type of activity. As reported by Bloomberg, according to research published by Cambridge (2016), US real estate crowdfunding platforms number more than 125 and poured $484 M into real estate projects in 2015, more than 3x the amount invested the previous year.
- Hybrid. Some platforms offer a combination of models with the aim to increase the probability of reaching the target amount by diversifying the sources of funds. In some cases, different types of CF are offered in the same platform while other platforms provide CF simultaneously to other modalities such as business angels financing.

Combining various types of CF makes it possible to support businesses all through their growth cycle: donation CF is utilized in the first stage in order to obtain initial funding, subsequently rewards CF is used to fund the prototyping, once the initial test is successful, growth ECF is used for financing the investment needed to escalate the business and finally, once reached some traction, lending CF is applied to fund ongoing activities. Figure 20 illustrates how different types of crowdfunding are adopted as the company lifecycle progresses.

Figure 20: Crowdfunding adoption curve



Source: Author, based on World Bank 2013

Academic literature about startups funding has been reviewed in search of valuable insights that will contribute in building the model proposed in this research. A detailed account of sources is included in the chapter dedicated to adoption factors.

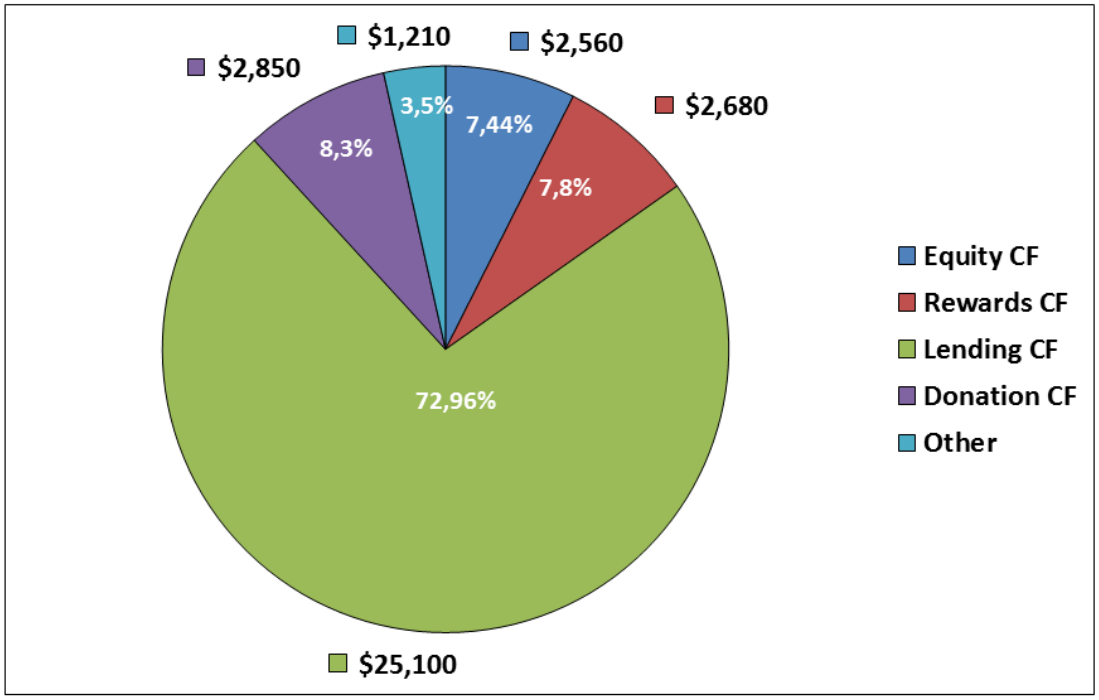
As discussed above, even though all models share the CF denomination, activities conducted differ to a great extent. In an attempt to assess the relevance of each modality, a comparison of the size and evolution of CF models in terms of volume is conducted hereinafter.

Figure 21 shows the estimated contribution of each CF model to the $34.4 B raised in 2015, with crowdlending emerging as the preferred model reaching $25.1 B or 73% of the total. This is explained by the presence of institutional money in these lending platforms, not only in the contributions to campaigns but also in the ownership of the platforms. Funds contributed to campaigns by institutional investors in lending platforms are estimated to be 20 to 30%, substantially higher than in other models such as ECF estimated at 8%. As for the participation of institutional money in the ownership of lending platforms, it is reckoned that between 24 and 29% of

them have some type of institutional investor in their ownership either in the form of business angels, major corporations - such as e-commerce firms - or large financial institutions (i.e. banks) (University of Cambridge & EY, 2015).

Donations, rewards and equity, reached similar volumes in 2015, $2.85 M, $2.68 M and $2.56 M respectively, still 10 times lower than crowdlending: Although their volumes were similar, their growth rate was very different; in the last 2 years when ECF multiplied by more than 5 times, reward by almost 3 times and donations increased a mere12%.

Figure 21: Market share by crowdfunding type worldwide



Source: Massolution, 2015

In summary, platforms are stakeholders that intermediate between creators and funders exerting a decisive influence on the result of CF campaigns. Regarding CF

types, even though all of them share the name, each one of them represents a phenomenon that differs greatly from the rest in almost all aspects analyzed.

2.2.3. Funders/Contributors/Backers

The third group of participants in the CF ecosystem to be analyzed are funders or contributors, that is, individuals or entities who contribute financially to projects launched by others (Schweinbacher & Larralde, 2010). This research will focus on individual contributors.

Even though funders are diverse, they seem to share certain features such as enjoying being part of initiatives that are innovative, related to technology, connected with a cause they care about and in some cases with expectations of a compensation (Ordanini et al., 2011). In interviews with funders for this research, they were all people who felt comfortable using technology, with above average financial expertise and graduate education. As example, Vortex's funder interviewed is an ex investment banker while in the case of La Inégalité, where the main motivation was affective, the funder is the mother of the creator and she is an architect used to PC and mobile banking, as well as to investing online.

As a general rule, contributors are Do-It-Yourself investors, meaning that they do not seek the support of a financial advisor for their decisions, which has several implications.

- Individual Backers lack the same access to information that professional institutions possess and therefore have to deal with information asymmetry, interpret signals and avoid herding behavior on their own, as we will see later in the new ventures support section of the chapter dedicated to adoption factors (Ahlers et al., 2015, Sun, 2013, Kim & Viswanathan, 2014).
- Contributors collect information from the project but also proactively search other sources in order to make an informed decision. It is not clear how they

conduct the decision process: whether they act as expert investors or not (Deci & Ryan 1985; Cholakova, 2016; Lukkarinen et al., 2016). Different perspectives form academic literature will be analyzed further in this document with the aim to decode this decision process.

- Funders face various types of risks originated both from the project and the platform: from fraud to failure of the venture. For this reason, building up trust becomes fundamental as we will analyze later (Mcknight et al., 2002). The role of the regulator is particularly relevant to mitigate risk, amongst its duties is to classify investors as accredited on non-accredited, according to their financial sophistication, restricting access to certain campaigns for the latter, as will be analyzed in the section dedicated to legislation

So far the general profile of funders and their common features have been presented. Hereinafter, motivations that lead them to contribute to CF campaigns and that constitute the main interest of this research will be discussed.

The main distinction between motivations, as discussed earlier, is the high level classification between intrinsic, that is, internal to the individual and unrelated to expectations of return; and extrinsic, coming from outside, conditioned by the environment and fundamentally linked to financial return (Deci & Ryan, 1985). The former are usually attributed to the soft side of CF (donations and rewards) while the latter are usually related to the hard or financial CF: equity and lending.

In the chapter dedicated to adoption factors academic literature will be analyzed where disparity of criteria exists. This will be the starting point for the research of this study, the aim of which is to decipher what motivations would lead to RCF funders who theoretically move for intrinsic reasons to adopting ECF that supposedly is guided by extrinsic or financial return motivations.

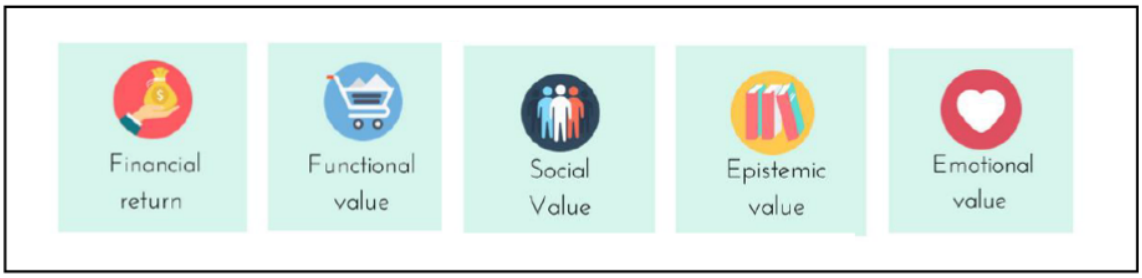
Even though motives depend to a great extent on the type of CF, analyzed in the chapter of adoption factors, the main reasons that academic literature assigns to CF

funders for contributing to campaigns are presented below (Harms, 2007; Gerber & Hui, 2013).

- Financial return. A basic reason for funding is the expectation of financial value, that is, an increase in the returns obtained when compared to the funds provided. This is the pure extrinsic economic value attributable to ECF and LCF and the unique motive for one of the interviewees for this research, an ECF backer who invested through the Crowdcube platform in a diversified portfolio of projects with the expectation of financial returns.
- Functional value. A desire to obtain a tangible, utilitarian or physical return as an exchange for contributions. This is the case of RCF backers, such as i.e. the ones in Garnacha Vella wine who expected their bottles of wine in return for the funds provided.
- Social value. Related to either fulfilling a desire of self-expression, generally in artistic context, or to feel part of a community with shared interests. Examples of these are the fans of the music band Marilion who in 1997 pioneered the CF practice, raising $60,000 in the RCF campaign that allowed them to tour the U.S.: by pre-purchasing the tickets, the community of Fans was able to enjoy live concerts in the tour.
- Epistemic value. Connects with the desire of innovation and learning such as the agreement of Unilever and Indiegogo to partner in a desire to foster open innovation in the consumer products company (Unilever.com).
- Emotional value. This includes motives such as having fun (i.e. Vortex backers who obtained a ride in a wind tunnel as an exchange for their contribution); the desire to feel involved by being an active part of a project (i.e. Oculus VR glasses´ backers who contributed to new versions with their comments); or willingness to support a cause (i.e. political parties that raise funds for campaigns).

In addition to their motivations, this research aims at digging deep into aspects of backers such as their degree of personal innovativeness, their demographics and the potential influence of the number of campaigns having funded.

Figure 22: Motivations of funders to back crowdfunding campaigns



Source: Author, based on Harms (2007) and Gerber & Hui (2013)

So far the 3 fundamental stakeholders of the CF value chain have been analyzed: creators, platforms and funders, with their characteristics and motivations. In the next section the dynamics that occur amongst them throughout the process of a CF campaign will be studied.

2.2.4. Process

In this section a CF campaign is analyzed step by step with the illustration of a process flow. Since CF campaigns follow a similar process an ECF campaign will be used as example as this is the main focus of this research.

The process starts when a creator acknowledges the need of funding and submits the business plan to a CF platform for evaluation with the aim of accessing a community of funders that might be interested in the venture. If the project meets the platform´s approval criteria, it is uploaded and publicized for a limited period of time, usually 90 days. During that time potential funders analyze all the information provided, which is usually related to the capital increase, minimum amounts required and basic business indicators of performance, together with a video where the creator presents the project. As part of the decision process, additional information

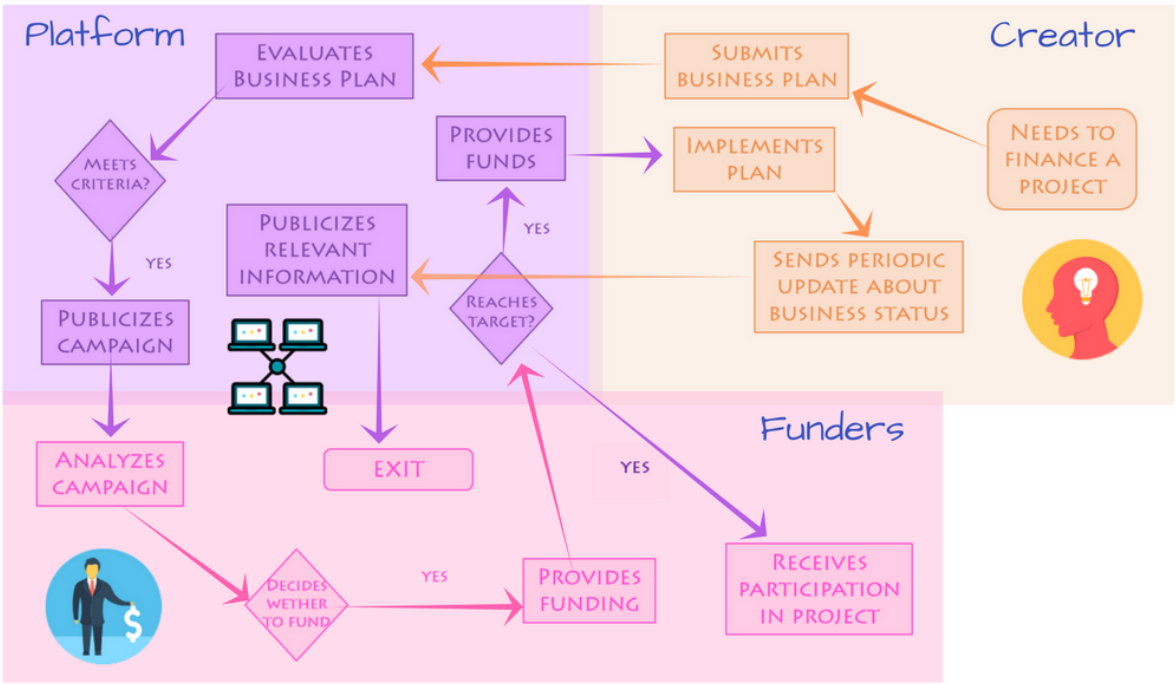
and the business plan are provided if required on a confidential basis upon request. It is not uncommon in ECF that potential backers contact creators for face to face meetings in addition to online conversations.

If the investment decision is positive, the funder makes a contribution of choice using credit card or Paypal as the most common payment methods. These funds are held in an escrow account until the end of the campaign period. Once reached that date and in case the target amount is reached or exceeded, the platform issues the necessary documentation to formalize the transaction to be signed by funders; in the case of ECF these contractual documents are particularly relevant due to the long term commitment and amounts provided, that are generally larger than in other types of CF campaigns. Of particular importance for funders is to examine the shareholder's agreements including drag alone, exit and other relevant clauses.

Once the documentation is signed, the platform collects the committed funds, transfers them to the entrepreneur after deducting a percentage or a flat fee as compensation for the platform itself. The project initiator then invests the funds received as indicated in the campaign and provides business updates on a periodic basis.

In the event of an exit by means of sale or merger, the funder invokes the drag along clause and collects the capital gains if any.

Figure 23: Equity crowdfunding process flow



Source: Author

The CF value chain has been analyzed and illustrated with examples obtained in the process of conducting present research as well as from existing literature and business publications. Motivations of creators and funders for being involved in this activity as well as platforms and different types of CF have been explored.

2.3. CROWDFUNDING GEOGRAPHY

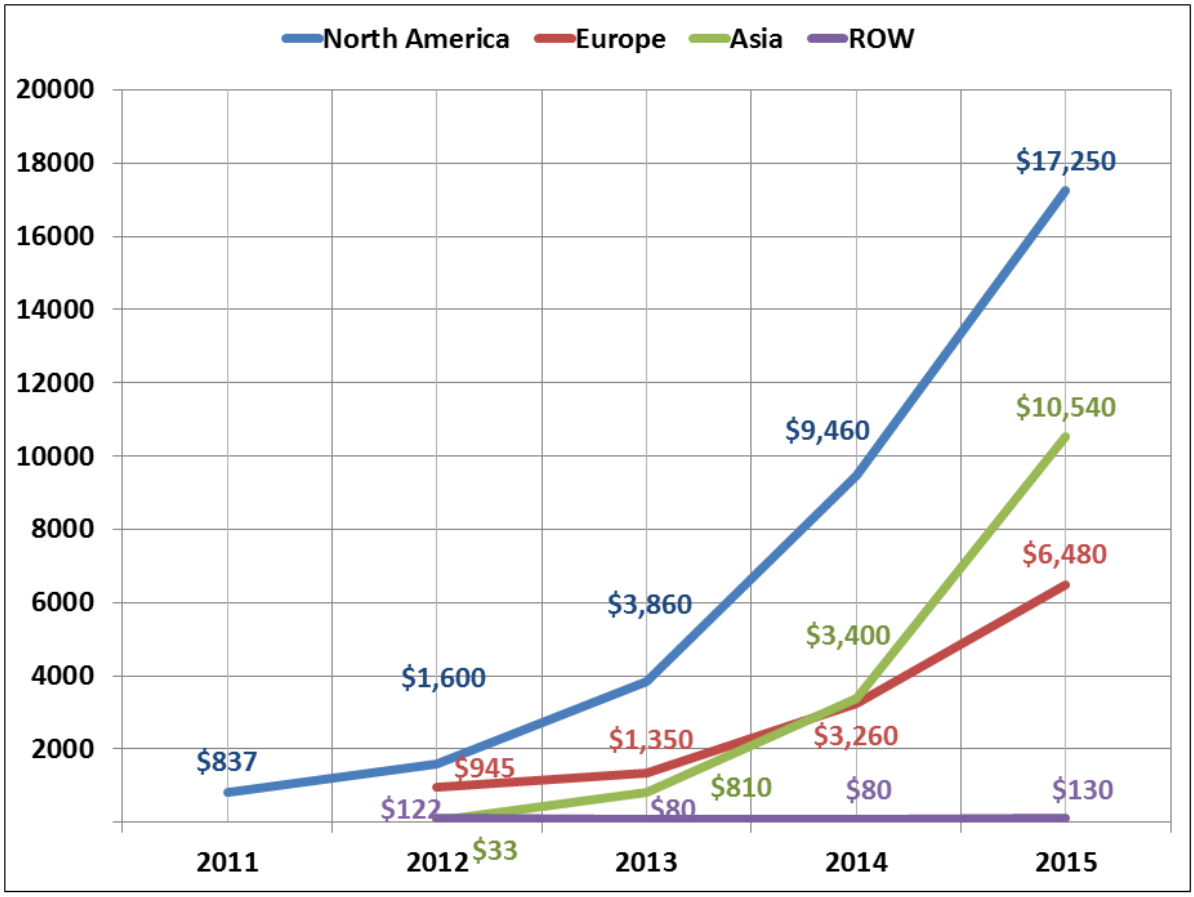
In this section we will zoom from the whole world, to Europe and then Spain, where the quantitative study is conducted.

The annual progress of CF volume in Europe compared to other geographic areas, will be reviewed in this section as well as the weight of the different types of CF in the European mix and compared to the worldwide distribution. Once within the European Union, the degree of CF penetration in Spain is studied in relation to other countries both in absolute and per capita GDP terms.

When analyzing the advancement of CF worldwide, the United States stands out as the area where this model has progressed faster, in particular after the approval of the Jobs Act in 2012 that facilitates the development of startups. It is no coincidence that the US meet the favorable conditions that the World Bank suggests, as mentioned earlier in the relevance section: the regulatory framework with the JOBS Act in force, together with a robust innovative ecosystem and accessible technology.

As a result, North America has the largest estimated CF volume: $17.25 B for 2015, half of the total world volume (Massolution, 2015). With $10.54 B or 31% Asia holds the second position, mainly thanks to rapid growth experienced by CF in this part of the world in recent years. The third place is for Europe with $6.48 B and a 19% share and slower growth than in Asia. The volume of Rest-of-the-world is significantly lower and by 2015 was estimated to represent less than 1% of the total. Figure 24 shows the evolution of the CF volume in the different geographical areas between 2011 and 2015.

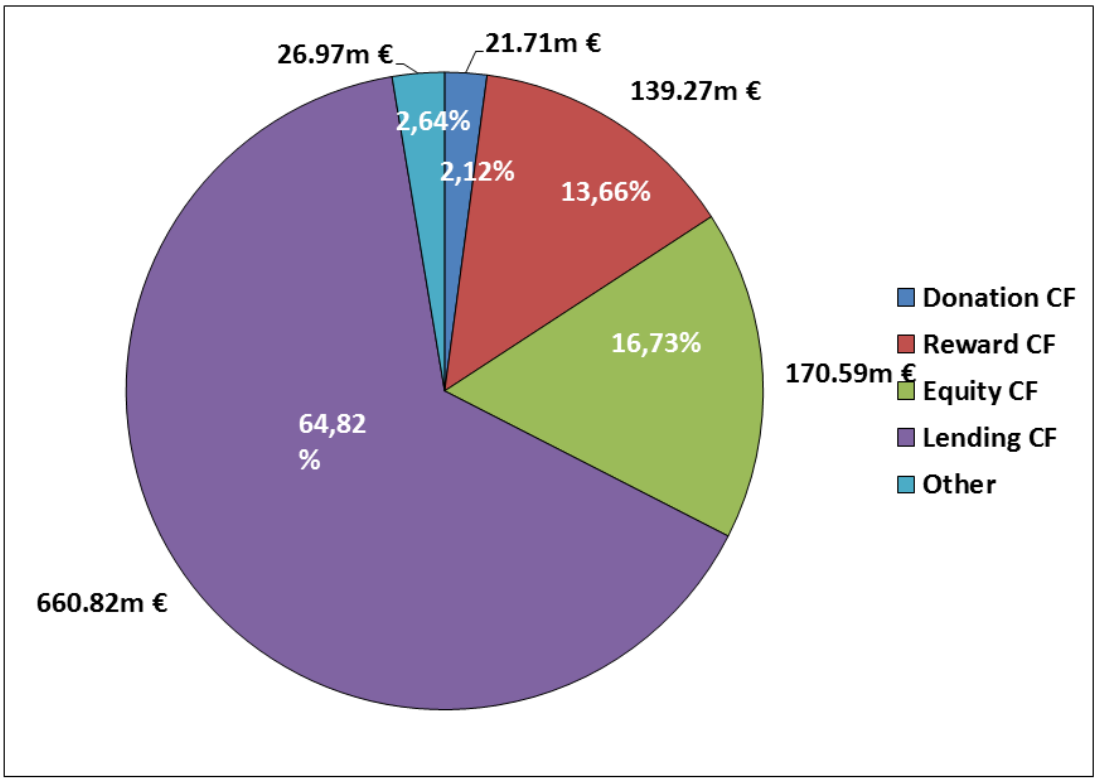
Figure 24: Evolution of the Crowdfunding Market by geographical Areas



Source: Massolution, 2015

Zooming on Europe, despite having grown at a somewhat lower rate than US and the European CF market has experienced a vigorous increase, multiplying its volume by almost 6 times between 2012 and 2015. In fact, Europe stands out for its Innovation as it pioneered the enactment of ECF laws as discussed later in the section on the ECF regulatory framework. This among other reasons, explains why in Europe the weight of ECF is much higher than in the rest of the world, 17% vs. 7%. As for RCF, its weight in Europe is also well above the global percentage: 14% vs 8%. As for lending, in the US it represents 73% vs. 65% in Europe, and donations 8% in the US vs. 2% in Europe.

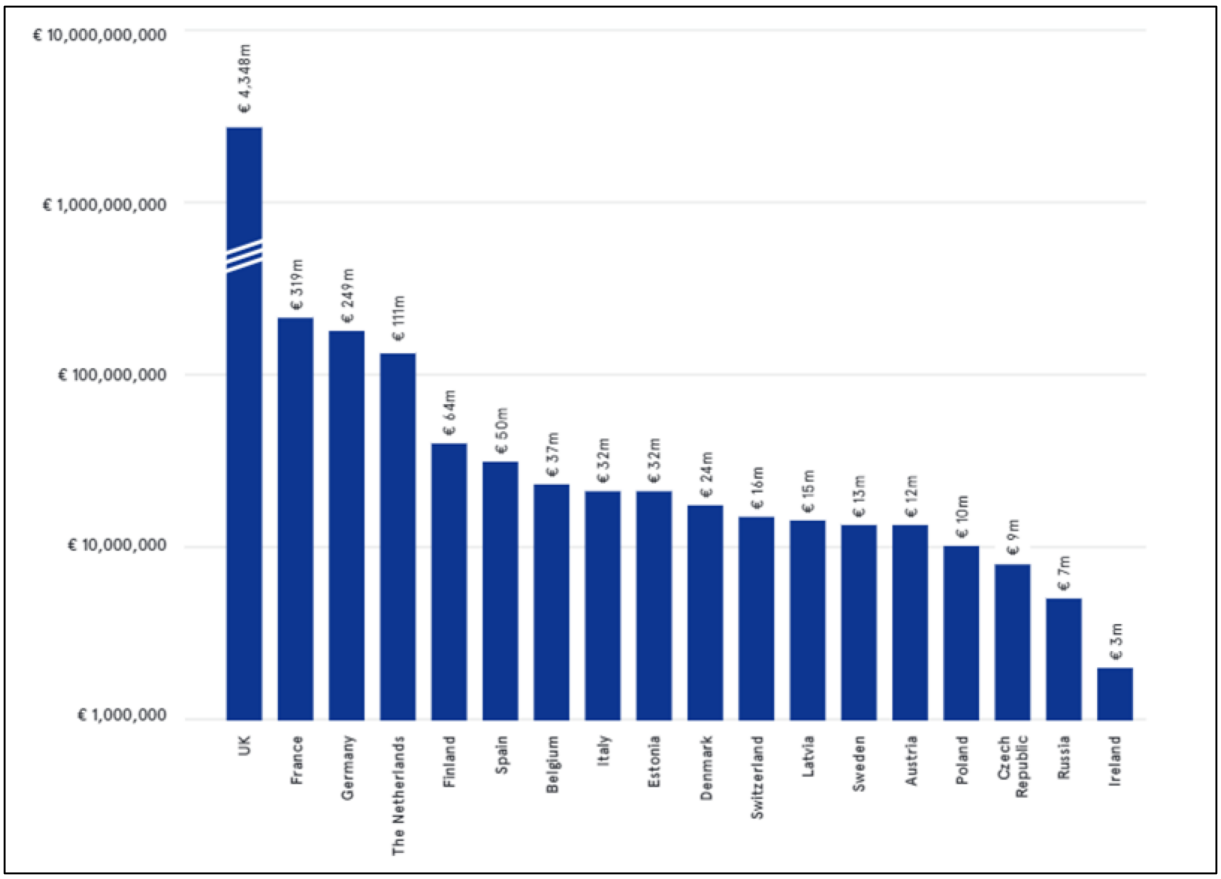
Figure 25: Market share by crowdfunding type in Europe



Source: Massolution, 2015

A country by country analysis of the CF volume raised in Europe is conducted below. UK is the country with the highest volume of CF raised in Europe, followed by France, Germany, Holland, Finland and Spain in this order. Ireland is the country with the lowest CF volume, followed by Russia, the Czech Republic and Poland.

Figure 26: Crowdfunding Volume by Country in 2015

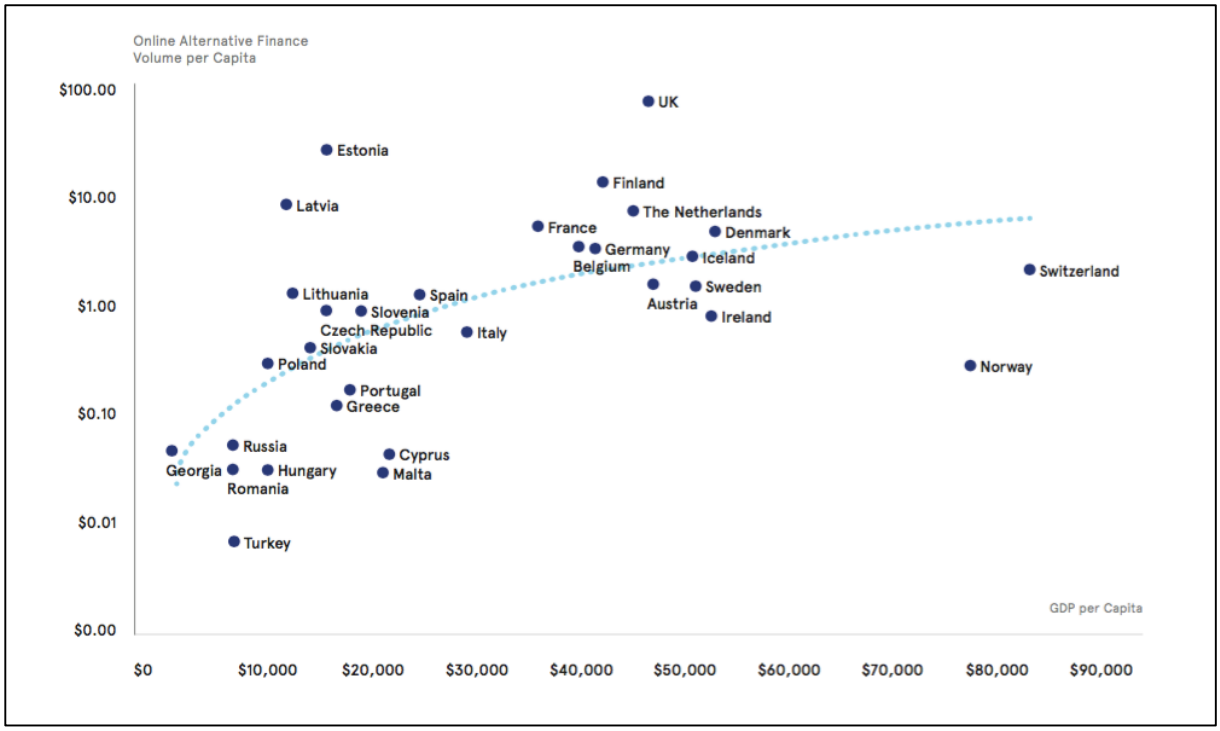


Source: Cambridge, 2016

In order to make a meaningful comparison of the development of CF in European countries, CF per GDP and GDP per capita are utilized as indicators. Figure 27 shows the position of European countries in these two variables in relation to the line of best fit. Countries like Estonia and Latvia stand out in terms of CF penetration in their economies, which points to their innovative character.

Spain sits exactly on the line of best fit, indicating that its level of CF development is on the European average. Thus, since the investigation is carried out in Spain, the results should fall within the European norm, avoiding outliers.

Figure 27: Total Online Alternative Finance Volume per Capita vs GDP per Capita ($)



Source: Cambridge, 2016

It has been illustrated how CF development has been faster in certain countries and areas, with European CF growing steadily but slower than in US and Asia. The investigation will focus on a RCF platform in Spain, country in which CF penetration stands in the European average as previously discussed, and thus we can consider the results of the investigation to be illustrative of the European situation.

Once defined the geographical scope, in the following section we will undertake a detailed analysis of RCF and ECF, the two CF models with which this research is concerned.

2.4. REWARDS AND EQUITY CROWDFUNDING: A SIDE BY SIDE COMPARISON

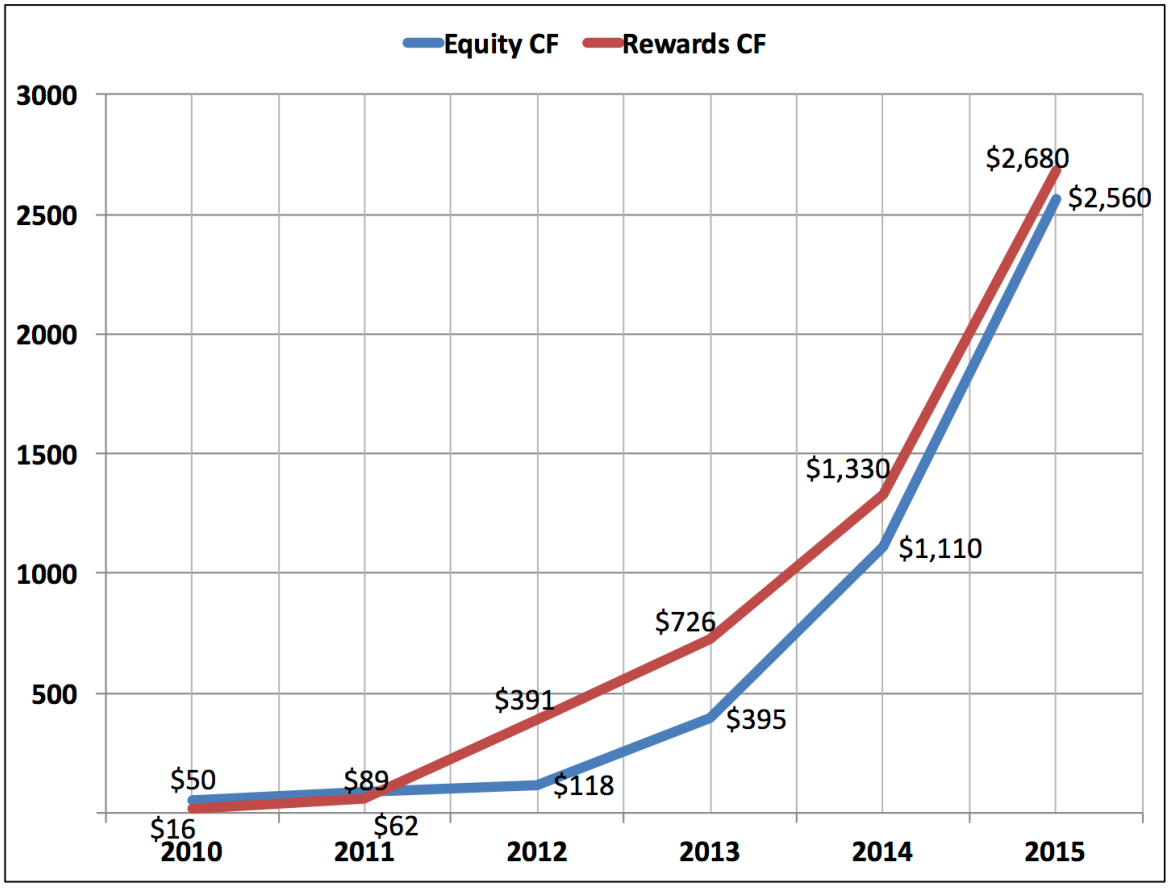
The goal of this section is to conduct a comparison between RCF and ECF by analyzing their main features while estimating their potential impact on RCF funders' decision to participate in ECF.

The rewards model was at the outset of CF and its purpose is to provide ventures with resources in their early stage. With the approval of its legislation, ECF reached the market and was soon acknowledged as a suitable means to support projects in a more advanced stage than RCF, when attempting to a leap in growth. Considering that millions of individuals have supported projects through RCF, it is worth exploring their willingness to adopt ECF to support ventures. Since the effect of CF is very beneficial for economies, as analyzed earlier in this document, a strong boost of ECF could add significant welfare to the economy of any country.

Among the scant literature available on this subject, Belleflamme et al., (2013) posit that investors prefer RCF when the capital required is small, while they prefer ECF for more significant contributions. Another aspect highlighted in the research is how the relationship between creators and participants is closer in RCF when compared with ECF: on one hand because RCF backers also use the product while ECF's do not always do so and, on the other hand, because in RCF creators get to know their most enthusiastic consumers, those willing to buy the product even before it is launched and sometimes at a cost higher than the eventual market price.

Annual levels pledged worldwide are similar for both types of CF: $2.7 B for RCF and $2.6 B for ECF estimated for 2015 (Figure 28). However, between 2013 and 2015 ECF grew by 548% while RCF grew by 269%. The reasons for ECF´s faster growth are a combination of equity platforms finally being regulated together with amounts pledged per campaign being substantially larger, as will be discussed later in this section. Taking into account the current growth rate, it is very possible for ECF´s overall volume to have surpassed RCF´s at the time of this writing.

Figure 28: Rewards and equity crowdfunding volume pledged



Source: Massolution, 2015

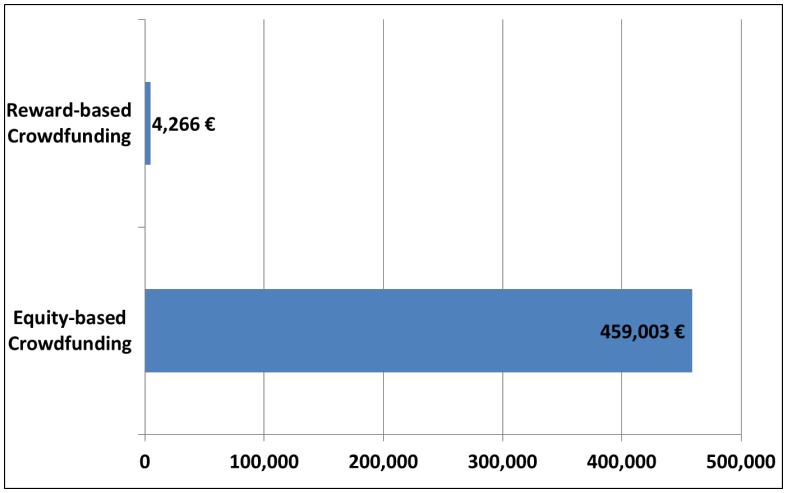
In addition to growing faster, the average ECF campaign size is approximately 100 times larger than the average RCF campaign: €459 K compared to €4.3 K, as visualized in figure 29. Furthermore, not only the average amount but also the minimum required is usually larger; this may result in some RCF backers not being able to afford participating in ECF campaigns.

ECF committed funds are not only larger but also engaged for a longer time period, until an exit event which is commonly expected to be from 3 years onwards.

Furthermore, in the case of ECF, the risk incurred by backers is greater since all the amount invested can be lost if the venture fails, while in the case of RCF the risk is limited to not receiving the reward, which is not usually the case. Regarding failure risk, it might be larger in ECF projects since 40% of new ventures fail in the first 3 years of activity (European Union, 2016), while only 9% of the RCF campaigns fail (Mollick & Kuppuswamy, 2014).

In summary, the size, risk and time commitment are significantly higher in the case of ECF campaigns, therefore being potential deterrent for RCF funders to adopt ECF.

Figure 29: Average funds per campaign raised in the UE



Source: Cambridge, 2016

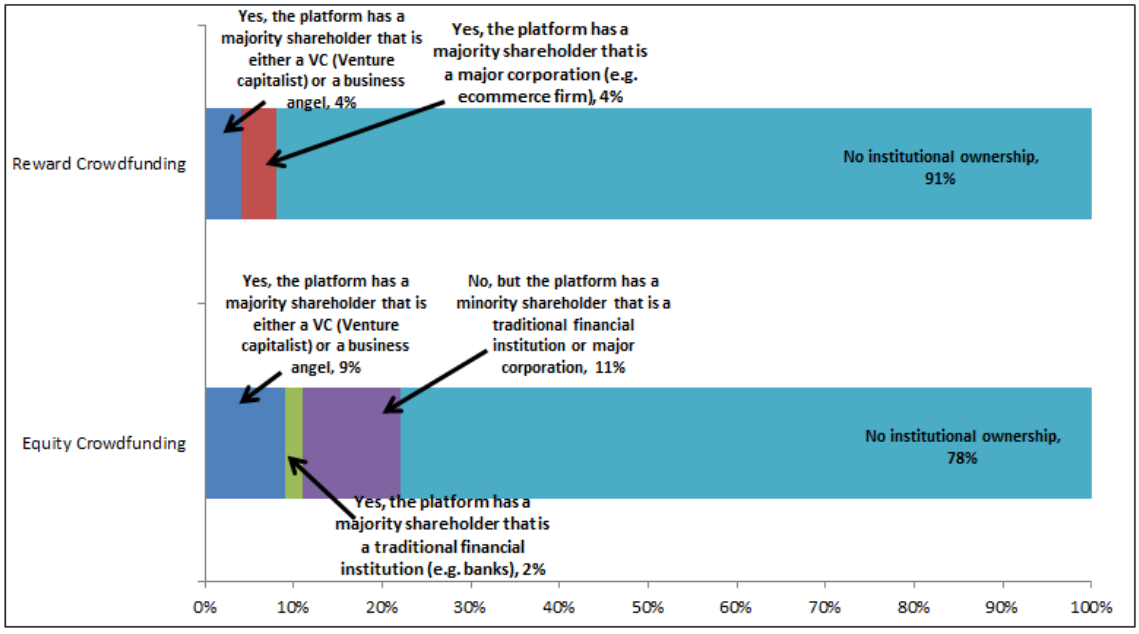
Next, the presence of institutional money in RCF and ECF platforms is analyzed in its two dimensions: platform owners and funders, as an indicator of the level of professionalization and its potential impact on individual funders.

Institutional capital is present with a different intensity in RCF and ECF: only 8% of the RCF platforms declare to have institutional investors whereas that percentage

rises to 22% in the case of ECF (Figure 30). This could mean that ECF entails a greater risk for the individual investor than RCF due potentially large information asymmetry, since individuals tend to have ~~a~~ limited access to relevant information when compared to institutions (Ahlers et al., 2015). Even in an attempt to be smarter by replicating experts' decisions, individual investors may fall into ~~a~~ herd behavior in which decisions are not guided by rational criteria but by what the crowd does.

Subsequently, implications of a stronger presence of institutional investors in ECF introduce the need of a legal framework that protects individual funders. Ensuring availability of the necessary information as well as transparency, emerges as a minimum requirement to enable non-professional backers be to be present in ECF.

Figure 30: Institutional ownership of crowdfunding European platforms 2013-2015



Source: Cambridge, 2016

The aforementioned need to protect non-professional funders has caused publication of national ECF laws that attempt to minimize risks, particularly after learnings form the recent financial crisis of 2007. Table 1 reflects some aspects of the published CF legislation of countries in the European zone: France, Germany, UK and Spain, as well as the US.

Regarding funders, limits to the amounts they can contribute per year are present in most countries, generally taking annual income as the decision indicator. The country with lowest limit among those analyzed is US, with $2,000 maximum annual contribution for funders whose annual income is below $100,000. (EU, 2016; Furnari, 2016). In addition, regulations often classify investors in accredited and non-accredited, granting the first higher funding limits or even eliminating them, as is the case in Spain. Legislators also tend to limit the size of the campaigns, being US the lowest with $1 M while UK´s €5 M is the largest.

As a result, legislation limitations can also be a factor that presents prevents RCF backers to adopt ECF due to either lack of accreditation or not compliance with minimum requirements.

Table 1: Main features of equity crowdfunding legislation in France, Germany, Spain, US and UK

	France	Germany	Spain	US	UK
Scope	Bespoke regime: ordinary shares and plain vanilla fixed rate bonds.	Profit-participating loans, subordinated loans, or other investment products (which grant the right to interest and repayment, or in exchange for the temporary provision of funds, grant a claim for cash settlement)	Securities and lending	Securities	Securities and lending
Entry into force	October 1, 2014	July 10, 2015	April 29, 2015	October 30, 2015	April 1, 2014
Size of offer (limitations or prospectus requirements)	€1 million per year per project.	Exemption from full prospectus for offers of profit-participating loans, subordinated loans or other investment products < €2.5 million. Exemption not available if an issuer´s investment being publicly offered using the exemption of Section 2 para. 1 no. 3 of the Capital Investment Act.	€2 million per project, per platform, in a given year. €5 million, if the offer is limited to accredited investors.	$1 million in a 12-month period. Disclosure requirements needed.	Lower than €5 million.
Maximum Investable amounts	No restriction with regard to the type of investors, the number of investors, or maximum investment limits.	Investor with freely available assets at least €100,000: up to €10,000 per issue. Investor with freely available assets below €100,000: twice the investor's monthly income, but not more than €10,000. All other cases (particularly if the investor does not provide a statement on assets and income): €1,000. No limits for corporate entities.	Non-accredited investors: €3,000 per project and maximum €10,000 a year. Accredited investors: no limit. Accredited investors are (i) Institutional investors; (ii) Companies with €1 million assets, €2 million annual turnover or €300,000 equity; (iii) Individuals with annual income above €50,000 or €100,000 financial assets.	Investors making less than $100,000 per year are able to invest up to $2,000 or 5% of annual income; Investors making over $100,000 per year can invest up to 10% of their annual income, but no more than $100,000 per year.	No hard investment limit. Retail investors who do not take advice, are not high net worth and are not sophisticated: not to invest more than 10% of their net investable assets.

Source: Author; European commission, 2016

When analyzed the type of ventures funded, in the case of RCF, artistic projects present the largest number of campaigns funded: music, design, film, entertainment; followed by media and publishing. As for ECF, the most commonly financed projects are business related, with technology as number one, followed by manufacture & engineering. This difference in project typology between RCF and ECF may point to funders' profiles as well as different reasons for funding them (Massolution, 2015).

The question is if RCF funders would be willing to move from mainly artistic to business-related type of projects.

Table 2: Most funded sectors by crowdfunding model

	Equity Based Crowdfunding	Rewards Based Crowdfunding
1st	Technology	Arts, Music, and Design
2nd	Manufacturing & Engineering	Film & Entertainment
3rd	Health & Social Work	Media & Publishing

Source: Cambridge, 2016

Hereinafter, an analysis of relevant examples of RCF and ECF platforms worldwide is conducted here with the aim of illustrating the comparison among the two CF models.

Table 3 shows some of the world's leading RCF platforms, three of which are US based while the fourth is based in France. Kickstarter is the largest one, only offering RCF and dedicated to projects form diverse fields; Indiegogo allows enables ECF in addition to RCF; Gofundme has a social orientation and therefore provides donation

CF in addition to RCF; Ulule, is a French platform dedicated to a wide range of projects. All the RCF platforms were founded between 2008 and 2010 and charge their fees as a percentage of the amount raised in a range between 3% and 7.9%.

As a purely RCF platform, Kickstarter is the largest one, with $3 B pledged at the time of writing this document. Its largest campaign so far being the Pebble smartwatch, whose campaigns rank 1st and 3rd largest of the platform, having raised $20 M in the first edition in 2013 and $13 M in the second one in 2016.

Table 4 lists some of the main ECF platforms worldwide. Most of them are based in the US: AngelList, Crowdfunder, Fundable, CircleUp and EquityNet. Crowdcube and Seedrs are UK based, and Ourcrowd is located in Israel. All of them were created between 2010 and 2012 except EquityNet which was an earlier network that was reconverted to ECF platform. Their project fee structures are varied, in some cases charging a percentage of the amount raised, others being a flat fee, a combination of the two options, or a percentage of the carry.

Table 3: Rewards Crowdfunding Platforms and their main characteristics

	Kickstarter	Indiegogo	GoFundMe	Ulule
Year Founded	2009	2008	2010	2010
Country	US	US	US	France
Amount pledged to date	$3 B	$1 B	$3 B	€76 M
# Projects funded	122,792	142,301	2 M	17,234
# Funders	12,705 M	11,5 M	25 M	1.483 M
Project fee	3-5%	5%	7,9% + $0,30 per donation	4.17%-6.67% (Decreasing if collects more than 100K)
Avg project size	$ 1 - $ 9,999	=~ $ 5,621	Non-Disclosed	$ 4,408.41
Largest funded: Project, activity and amount pledged	PEBBLE WATCH: Smart watch $20 M	UBUNTU EDGE: Smartphone $13 M	ORLANDO PULSE: Support families of victims of the shooting $4M	NOOB LE FILM: Movie €680 k

Source: Author based on Massolution (2015) and Goldman Sachs (2016)

Table 4: Equity Crowdfunding Platforms and their main characteristics

	AngelList	Crowdfunder	Fundable	Circle Up	Crowdcube	Seedrs	Equity Net	OurCrowd
Year Founded	2010	2011	2012	2011	2011	2012	2005	NA
Country	US	US	US	US	UK	UK	US	Israel
Amount pledged to date	$ 530 M	$183 M	$ 308 M	> $325 M	> £258 M	> £190 M	> $300 M	$400 M
# Projects funded	1,330	21,671	400 k	242	494	> 460	> 30,000	110
# Funders	31,319 accredited	12,000	23,000	accredited	376,058	NA	> 100,000 accredited	17,000 accredited
Project fee	10% carry	$179 monthly fee min.	$179 entry fee; monthly fee $99-$299	A % of the amount raised: Non disclosed	6%	7.5%	$300 monthly fee min.	NA
Avg project size	$200 K - $350 K	$1.8 M	NA	$1 M - $10 M	£2,097	NA	$2.5M	NA
Largest funded: Project, activity and amount pledged	CRUISE AUTOMATION 3 rounds of $4.3 M, 12.5M and $2 M	PINGTANK Photo & Video animation $450 K	UNYQ Prosthetics production $1,6 M	RYTHM SUPERFOODS Vegan organic snacks $9 M	HEMAV Drones designed for civil purposes £450k	CHAPELDOWN Beer £3.95k	RELIABLE TIRE DISPOSAL $300 K	SURGYCAL THEATRE Practice room for surgeons $4,5 M

Source: Author based on Massolution (2015) and Goldman Sachs (2016)

When comparing the two groups of platforms, some differences stand out:

- Degree of concentration. RCF platforms exhibit larger volumes pledged in lower number of platforms compared with ECF´s with lower volumes distributed in a fragmented platform choice. This might be caused by the need of scale as an imperative for profitability that is more prevalent in RCF since both its campaign size and fees are lower than the ECF ones.
- Funders´ accreditation. The majority of ECF platforms analyzed require accredited investors, while RCF ones are open to anyone. This distinction seems to respond to a desire of limiting liabilities originated by the risky nature of ECF compared to RCF, as explained before in the legal discussion. Another perspective for this pre-selection of backers might be the desire by platforms to make funders feel they belong to a kind of “elite-exclusive-club”.
- Success stories. Even though major projects fall into the technological and artistic categories for both platform types, ECF also shows business related ones such as a brewery or a vegan food venture.

RCF and ECF exhibit substantial differences in all aspects analyzed so far: amounts pledged are different, as well as the risk, the time commitment, the level of professionalization, and the type of campaigns financed. A summary of the comparison is shown in table 5 below.

Table 5: Main characteristics of RCF and ECF

	RCF	ECF
Project cycle stage funded	Initial	Growth
Risk	Medium	High
Main motivations for backers	Intrinsic	Intrinsic-Extrinsic ??
Time horizon	Months	Years
Presence of institutional investors	Low	Medium
Accreditation required	Never	Often
Backers as users	Generally	Sometimes
Most frequently financed type of activity	Arts, music & design	Technology

Source: Author

The side by side comparison has enabled to dig deep into differences between RCF and ECF, which contributes to a better comprehension of the challenge involved in transition from one type to the other.

2.5. MAIN CHALLENGES

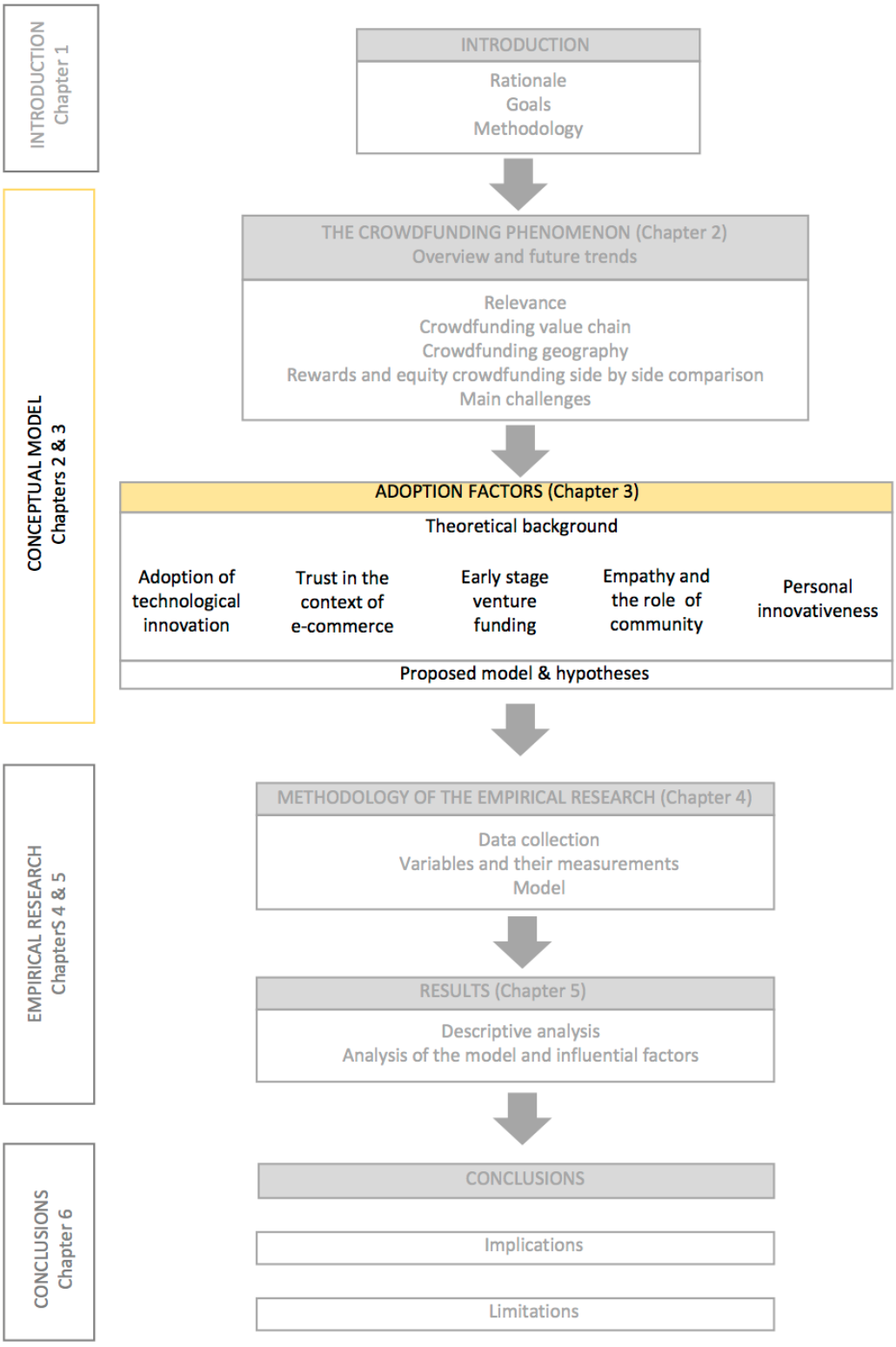
The analysis conducted highlights the opportunity for new ventures that CF implies since not only provides with funding but also does so in an innovative manner, by enabling small investors to be actively involved in the development of new ventures.

However, transitioning from a RCF model with mostly empathy related focus to ECF implies moving towards an uncertain territory since funders´ motivations to potentially adopt this new model are unknown at this point.

As a result, an analysis will be conducted that might conclude with different outcomes, each of whom poses challenges. Among others:

- In the scenario of RCF backers deciding to contribute to ECF for empathy related motivations, the financial risk involved might imply undesired losses as consequence
- If decisions are made based from a purely financial perspective, it is unknown if the degree of preparation that non-professional investors exhibit as well as the potential information assymetry will allow them conduct this activity

Nevertheless, given the beneficial effects implied in the potential expansion of ECF, it seems pertinent to conduct the present research to decipher these challenges with the aim of providing with suggestions for action.


INTRODUCTION Chapter 1
CONCEPTUAL MODEL Chapters 2 & 3
EMPIRICAL RESEARCH Chapters 4 & 5
CONCLUSIONS Chapter 6
INTRODUCTION
Rationale
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THE CROWDFUNDING PHENOMENON (Chapter 2)
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ADOPTION FACTORS (Chapter 3)
Theoretical background
Adoption of technological innovation
Trust in the context of e-commerce
Early stage venture funding
Empathy and the role of community
Personal innovativeness
Proposed model & hypotheses
METHODOLOGY OF THE EMPIRICAL RESEARCH (Chapter 4)
Data collection
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Model
RESULTS (Chapter 5)
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Analysis of the model and influential factors
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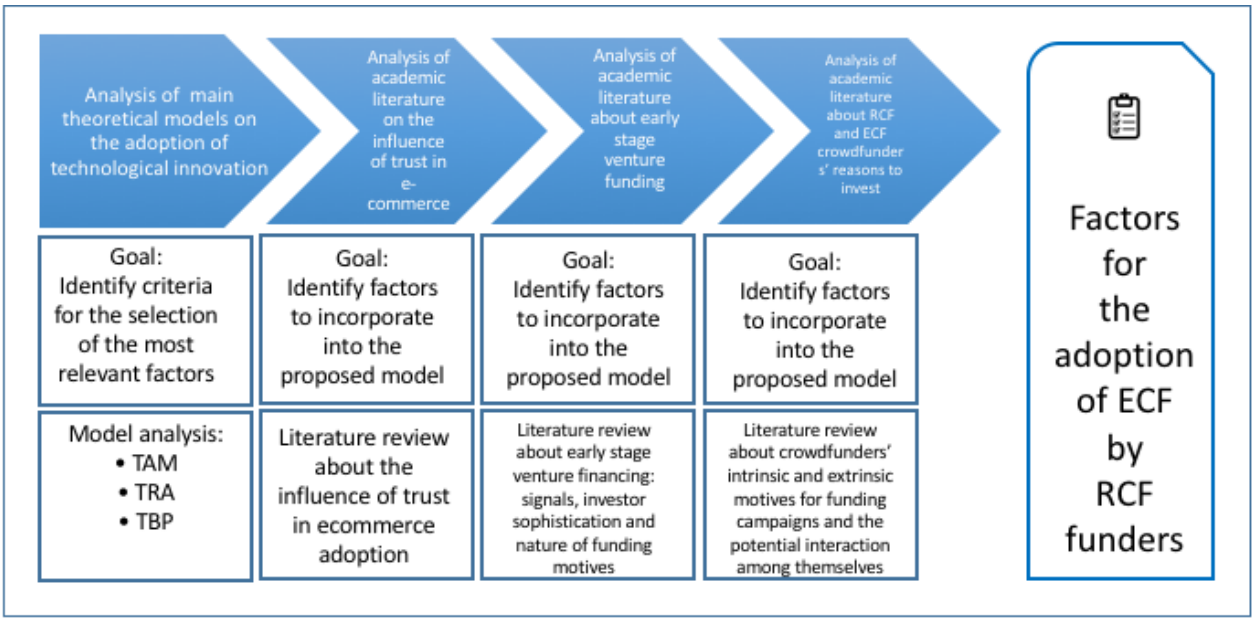
Implications
Limitations

3. ADOPTION FACTORS

The purpose of this chapter is twofold. The first one is to identify the factors that academic literature indicates as having a relevant impact in the process of adopting technologies in the context of ecommerce which, together with those related to the intention to fund early stage ventures and the motivators of funding RCF and ECF campaigns, will be the basis of the adoption model proposed in this thesis.

The second one is to review in detail each factor that composes the model, identifying the most relevant references found in the literature and highlighting their application in the funding of CF campaigns. This individualization will allow to formulate a series of hypotheses associated with the expected relationship of each of the factors with the decision to fund ECF projects by RCF funders, thus giving rise to the model proposed in this doctoral thesis. This model and the underlying assumptions will be tested through the analyzes included in the subsequent chapter. Figure 31 illustrates the process followed to identify the factors that, according to the literature, are expected to affect the decision to fund ECF campaigns by RCF funders.

Figure 31. Process followed for the identification of the factors for ECF adoption by RCF funders



Source: Author

The process is structured in the following four steps:

1. A first analysis of the main streams of literature that analyze the adoption of technological innovations by individuals with the objective of identifying general criteria that allow the selection of a first list of relevant factors.
2. An analysis of academic literature that deals with the influence of trust in the adoption of ecommerce with the objective of identifying the factors adapted to the online business context where ECF operates.
3. A review of the scientific literature that studies the financing of early stage ventures with the purpose to Identify factors to incorporate into the proposed model
4. A review of the literature about motivations of RCF and ECF funders with the purpose to Identify factors to incorporate into the proposed model

Throughout the following sections of this chapter, the work carried out in each of the stages described above, as well as the main conclusions drawn, are discussed in detail. These conclusions take the form of hypotheses to be contrasted as the basis of the model proposed in this thesis in the last section of this chapter.

3.1. THEORETICAL BACKGROUND

In this section, an analysis is conducted of the streams of literature that have been previously identified as relevant for the purpose of building a holistic model that explains ECF adoption. Adoption of technology, trust in the context of e-commerce, early stage venture funding and empathy will be studied in the following parts.

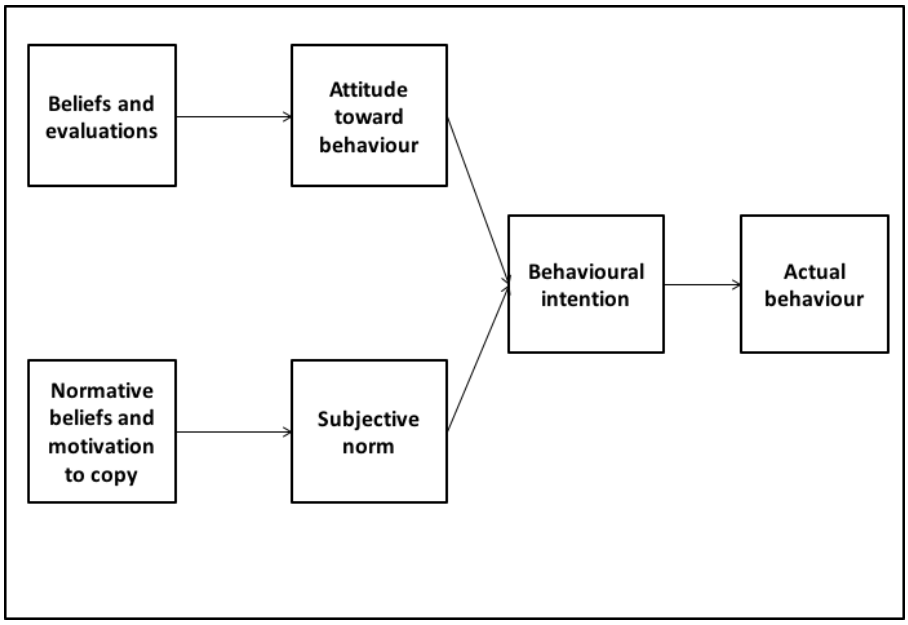
3.1.1. Adoption of technology process and influencing factors

The predominant novelty of equity crowdfunding together with the technology element determines the main stream of literature analyzed related to the adoption of innovations, where Technology Adoption Model (TAM) (Davis, 1989) and the Diffusion of Innovations Theory (Rogers, 2003) are prevalent.

For the purpose of this research a combination of technological and psychological perspective is preferred, in particular intention based models that provide an in depth approach to the motivations that move funders to contribute to ECF campaigns. In the following part we will analyze the most widely utilized models in this stream of research and explain why TAM is the endorsed model when compared to the others considered. The model proposed in this research is holistic and integrated - based on TAM and incorporating elements from different theories on trust in ecommerce, startup investments and crowdfunding funders' motivations.

The origin of TAM is in the Theory of Reasoned Action (TRA, Fishbein & Ajzen, 1975), a social psychological model that explains the behavioral intention of an individual to perform an action based on the influence of two determinants: attitude and subjective norm, where attitude refers to "positive or negative feelings about performing the target behavior", and subjective norm is "the person's perception that most people who are important to him think he should or should not perform the behavior in question".

Figure 32: The Theory of Reasoned Action

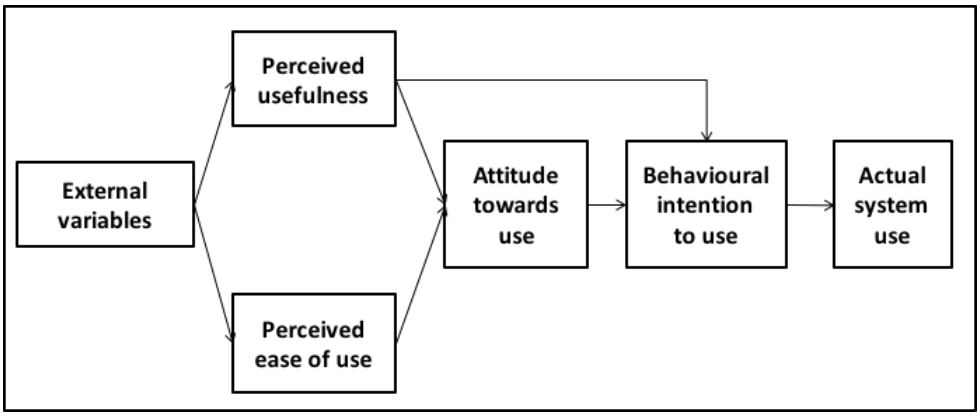


Source: Fishbein & Ajzen (1975)

Two theories evolved from TRA that influenced and complemented each other over time in a way that will be analyzed below: TAM and the Theory of Planned Behavior (TPB).

TAM was formulated for the first time by Davis in his doctoral thesis at MIT Sloan school of management. As an evolution of TRA, TAM posits that Attitude is influenced by Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), where PU is “the degree to which a person believes that using a particular system would enhance his or her job performance” and PEOU “the degree to which a person believes that using a particular system would be free of effort” (Davis, 1989). In addition, PU has a direct influence on behavioral intention. The TAM1 model is illustrated in figure 33.

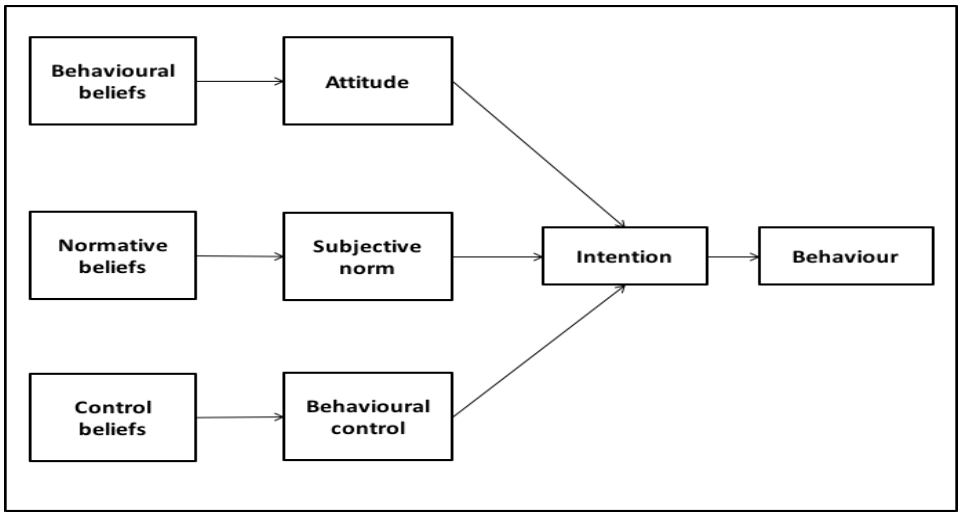
Figure 33: The Technology Acceptance Model 1 (TAM1)



Source: Davis (1989)

Also building on TRA, TPB was formulated at a later stage by incorporating behavioral control as an additional variable with direct impact on intention (Ajzen, 1991). The resulting model attempts to explain cases where individuals lack complete control over the situation and therefore their intention does not necessarily result in behavior (Savolainen, 2016). Figure 34 visualizes TPB.

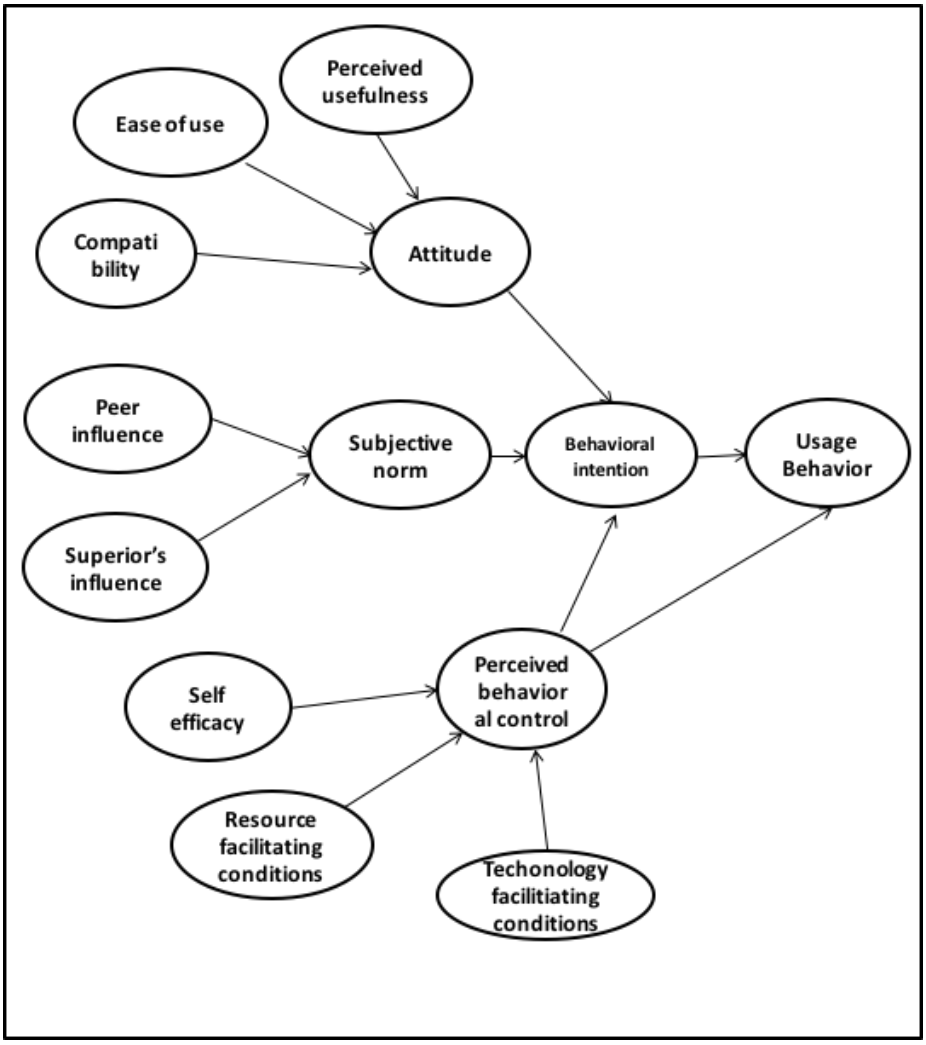
Figure 34: Theory of Planned Behavior (TPB)



Source: Ajzen (1991)

In 1995, Taylor and Todd combined TAM with TPB to propose a new model that defines in greater detail the factors that make up beliefs such as the influence of significant others, perceived ability and control. The result was the Decomposed Theory of Planned Behavior (DTPB) that improves the predictive character of TAM and TPB and is illustrated in figure 35.

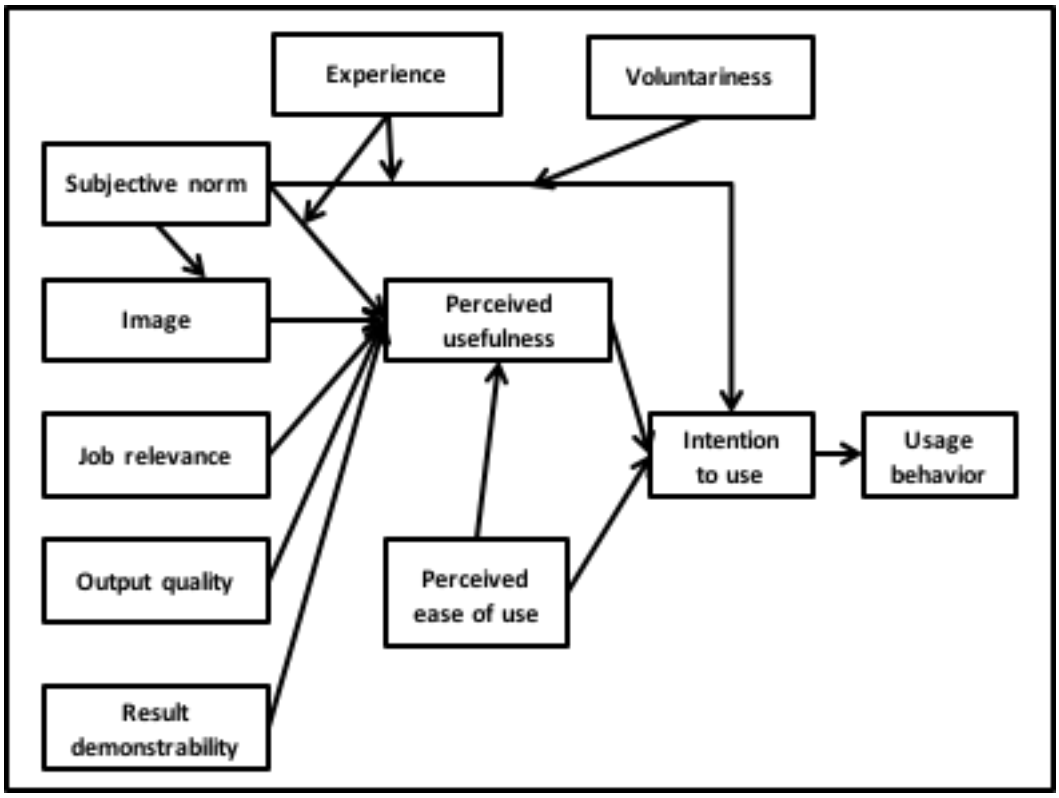
Figure 35: Decomposed Theory of Planned Behavior (DTPB)



Source: Taylor & Todd (1995)

At a later stage of its development, TAM evolved by developing the factors that influence PU, since it was found to be the variable with greater impact on intention. Simultaneously, TRA's subjective norm was incorporated after being absent from the initial TAM due to difficulties in assessing its direct and indirect effects on intention (Davis et al, 1989). TAM2 also incorporates the effect of voluntariness on the intention to use, especially in cases of mandatory adoption, as well as the effect of the experience over time. The resulting model is shown in figure 36.

Figure 36: Technology Acceptance Model 2 (TAM2)

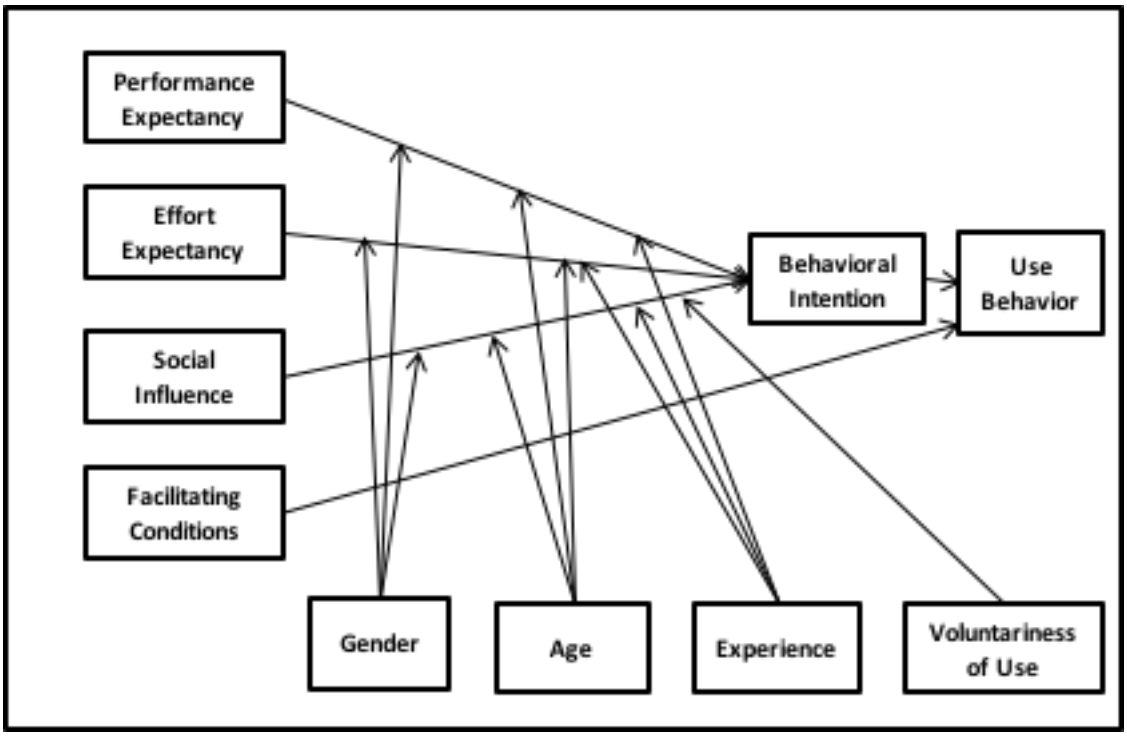


Source: Venkatesh & Davis (2000)

In an attempt to capture the most salient contributions of the eight most valued existing models to explain technology adoption, the Unified Theory of Acceptance and Use of Technology was formulated (UTAUT, Venkatesh et al, 2003). This model outperformed the original ones by incorporating determinants of both intention and usage while also analyzing four moderators: age, gender, experience and voluntariness of use.

However, its development also focused on the business environments results in UTAUT to be discarded to explain ECF adoption, a context where individuals do not face such constraints (Savolainen, 2016).

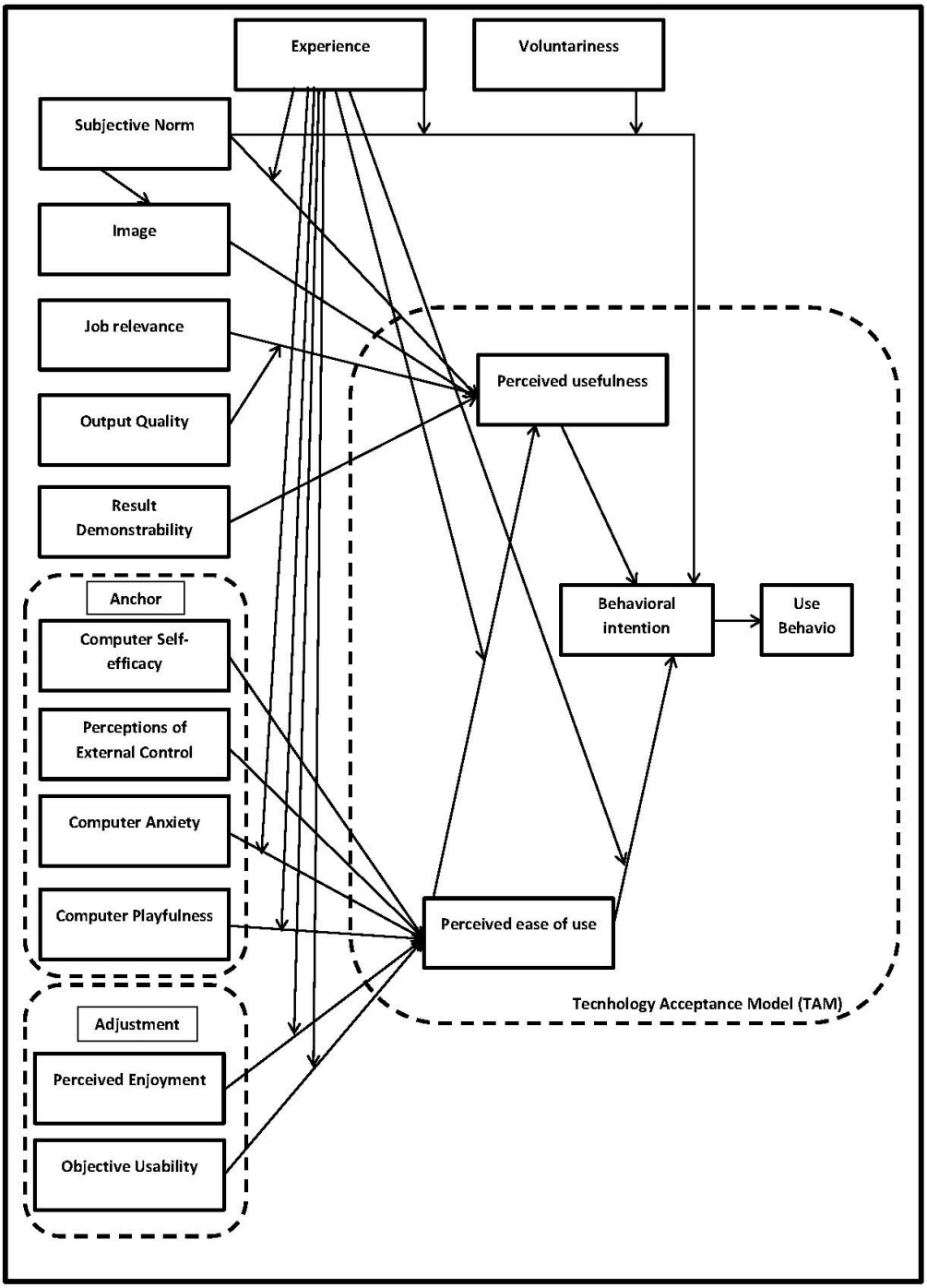
Figure 37: Unified Theory of Acceptance and Use of Technology (UTAUT)



Source: Venkatesh et al. (2003)

In a later development of TAM and in an attempt to improve its actionability, detailed determinants of PEOU were included together with the influence over time that the experience with a system has as a mediator between some of these variables and the perceived ease of use. The result is TAM3 (Venkatesh & Bala, 2008), that will be the basis of the model in this research to capture the innovation adoption components that investing in ECF imply for RCF funders. Figure 38 visualizes TAM3.

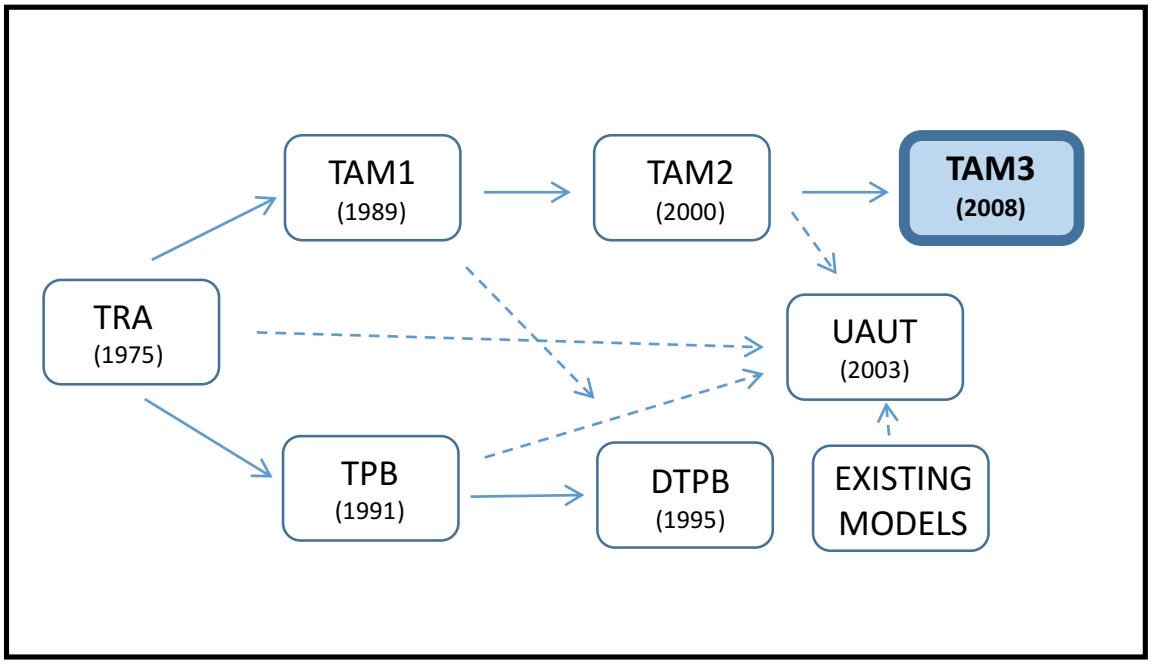
Figure 38: Technology Acceptance Model 3 (TAM3)



Source: Venkatesh & Bala (2008)

The evolution of technology adoption models is visualized in figure 39. From the TRA origin from which TAM and TPB emerged, together with their subsequent evolution and interdependences until TAM3 which is the chosen model for this research.

Figure 39: Evolution of technology adoption models



Source: Author

A main reason for selecting TAM is that this model has been applied extensively and is a mature and recognized framework that consistently explains around 40% of the variance in individuals' intention and behavior to use IT (Venkatesh & Davis, 2000).

Furthermore, in the online financial services arena where ECF lies, TAM appears to be superior to the TPB and the TRA in explaining behavioral intention and actual use. In their research about adoption of internet banking by individuals, Yousafzai et al (2010) compare the three models and conclude that TAM is superior due to a) its general application as opposed to context-specific need that TRA and TPB present, b) the existence of more and better testing instruments based on TAM and c) its

superior parsimony that makes it the most efficient in complying with Ockham's principle.

When related to financial services, academic literature provides applications of TAM to the study of activities genuinely connected with the nature of ECF, such as online investment (Lin et al, 2007), online banking (Pikkarainen et al, 2004) and wireless finance (Kleijnen et al, 2004).

An additional reason in favor of TAM is that despite being originally formulated to explain technology adoption in business environments, it was soon extensively applied to practices of individuals outside of work, (world wide web: Moon & Kin, 2001; Teo et al, 1999; Lederer at al., 2000 and Gefen et al., 2000; automotive telematics: Chen&Chen,2009; online auctions: Stern et al, 2008; self-service technologies: Chen et al, 2009; Radio Frequency Identification RFI: Müller-Seitz et al, 2009). As a result of the above, today an ample agreement exists about the validity of applying TAM to the out of business domain.

TAM3 will be useful in the elaboration of the model object of this thesis by means of the PU and PEOU constructs whose antecedents will be adapted to the ECF context as follows

- Since CF is conducted in an out of work context, TAM variables related to the professional setting such as mandatory and job relevance will be excluded
- TAM variables and first-level constructs will be adapted to the closest possible environment to CF that is e-commerce, as both are online business to consumer activities as will be analyzed
- The experience construct from TAM as a moderator of intention will be incorporated to the proposed model

Due to the recent appearance of the CF phenomenon, and in order to contextualize the use of the TAM model, we will analyze its application to the ecommerce environment and when possible to a particular subset of it that is online investment,

due to its similarity with the CF activity. The main consequence of this adaptation is the need to include an analysis of trust and its influence in adoption, which will be conducted hereinafter.

3.1.2. Trust in the context of e-commerce

TAM3 was identified in the previous section as the most suitable model to explain ECF adoption regarding its technological and innovation components. In this part a review of academic literature that addresses the trust component entailed by ECF is conducted, in order to incorporate components that are relevant in this context, to the proposed model.

Trust is considered as the main deterrent to participate even in low risk activities such as RCF campaigns that are considered as the “soft side” of CF (Gerber & Hui, 2013). Even more so, trust is relevant in equity projects due to the risk involved in this type of CF since funders may lose the amounts provided. For this reason, ECF is considered as the “hard side” of CF together with lending.

Trust has emerged as a core component in the explanation of ecommerce adoption since its beginning and ECF is contemplated as a type of ecommerce where the shop is the CF platform and the product purchased is a share in the project. In this regard, the lack of a brick-and-mortar facility implies the assumption of risk since “*the shop is unknown, the shop owners are unknown, the quality of the product is unknown, and the settlement performance is unknown*” (Van der Heijden et al., 2003; p 42). Moreover, in the case of ECF, a double risk is implied and therefore double trust is required: first in the platform (the virtual shop) and then in the project. Subsequently, trust needs to be built towards both entities.

In search of factors that determine trust in the ecommerce context Kim et al. (2004) consider the situation when a consumer conducts a purchase from online vendor for the first time, which could be analogous to contributing to a first CF campaign. For

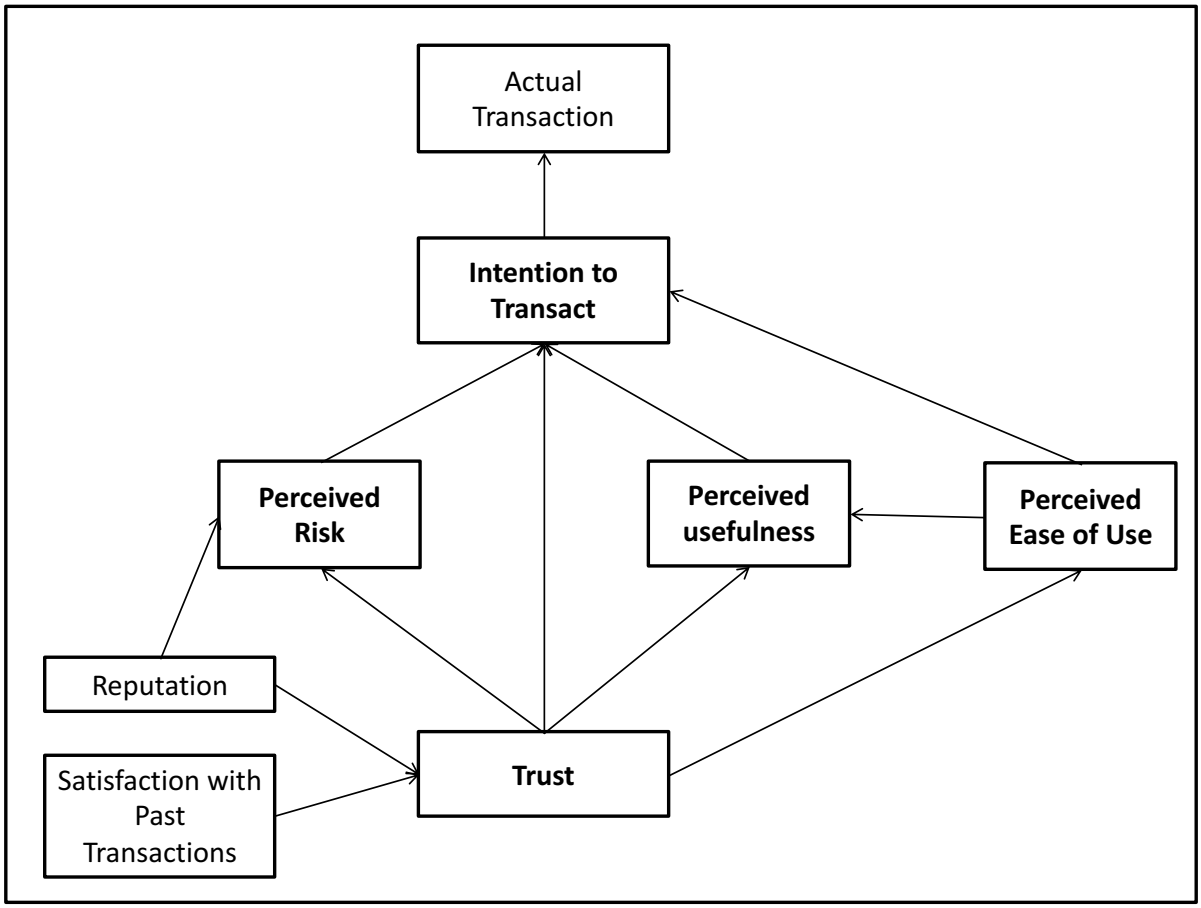
the authors, lack of physical presence between consumer and supplier influences trust as a critical concern. In this context, the two constructs that most affect trust are information available about the supplier and his reputation. In our proposed ECF model we consider both components in the quality and operational competence constructs, respectively.

For the purpose of this paper we will adopt the definition of trust by Mayer et al (1995): “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party”.

Due to the increasing popularization of internet stores, the need of considering the trust component has been acknowledged by academics. Models that intend to explain the adoption of ecommerce are often built by incorporating trust as a main component of TAM, even with stronger effect on the outcome compared to PU and PEOU. Below are some examples.

- Pavlou (2003) posits trust as a driver of ecommerce acceptance, in a twofold manner, both directly and indirectly as a mediator of the constructs risk, PEOU and PU involved in online transactions. Trust influences risk by reducing the perception of uncertainty and therefore increasing the chances of using the ecommerce site. It also influences PEOU by reducing the need to control every step of the relationship with the vendor, thus saving time and effort, and facilitating the interaction. And PU is affected by trust in the sense that the lack of confidence in the vendor prevents customers from expecting any improvement in performance. Amazon and other e-retailers were the sites utilized to test the model in this paper.

Figure 40: Pavlou´s Trust Model

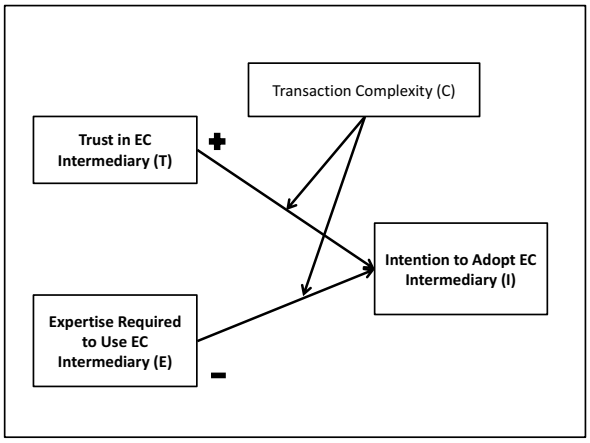


Source: Pavlou, 2003

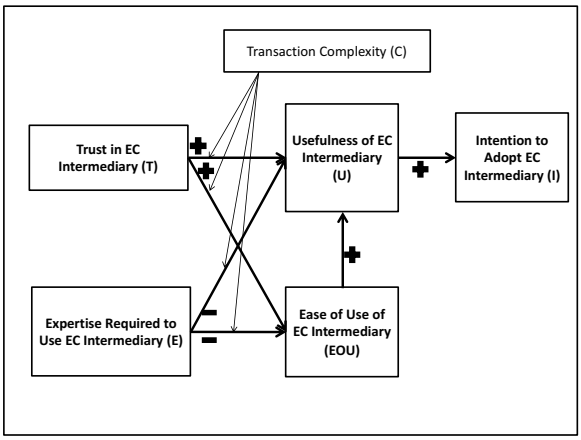
- Chircu et al (2000) used an online trip service to find out that trust and required expertise are variables to be added to the TAM model. In both cases these variables have a direct impact in the adoption of the service but also a mediator one though PEOU and PU. In the online travel context analyzed, lack of an intermediary requires that users are familiar enough with the service to manage it on their own. In particular, this research emphasizes the potential role of e-retailers in encouraging the adoption of complex transactions where they can significantly reduce the expertise required to use them while increasing the trust of potential users.

Figure 41: Intention to adopt an ecommerce intermediary: main model and detailed model

Main model



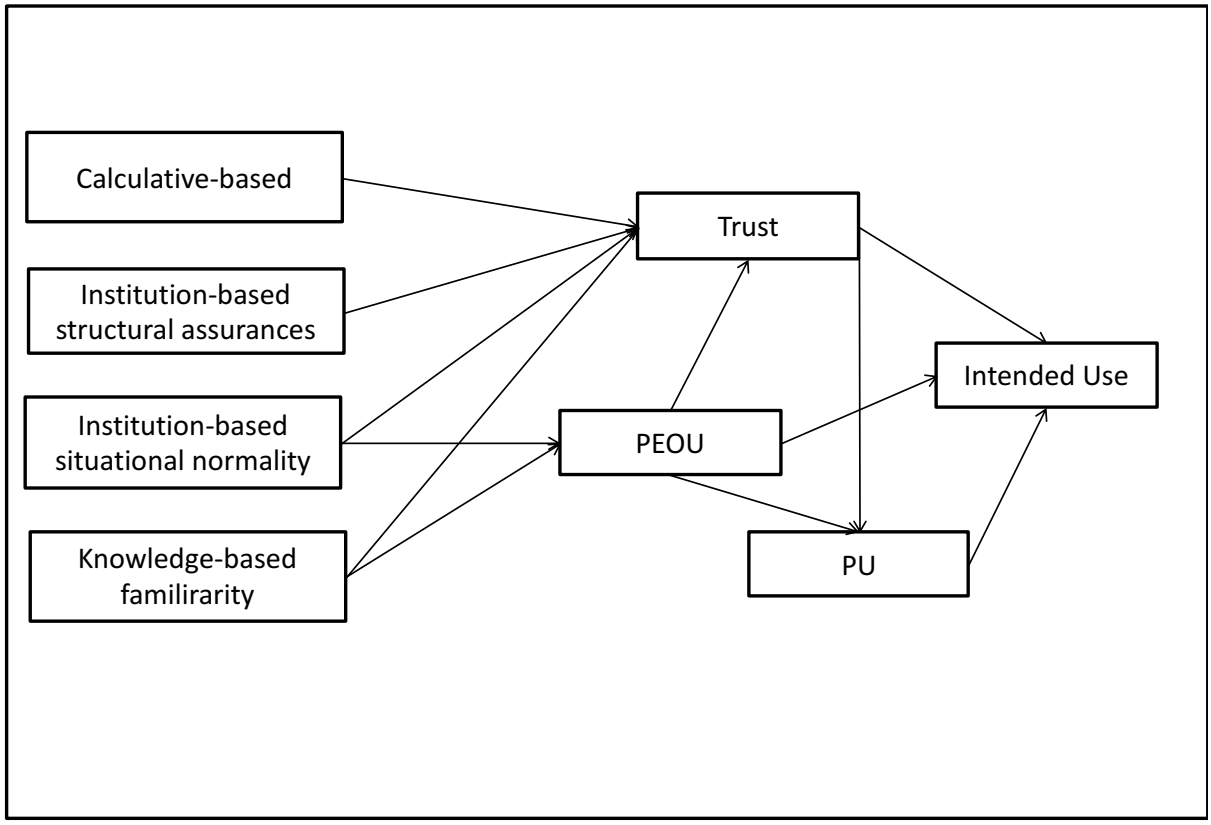
Detailed model



Source: Chircu et al, 2003

- Gefen et al. also incorporates Trust to TAM as a construct that influences ecommerce adoption directly, in addition to PEOU and PU, and indirectly via PU only (Gefen et al, 2003). This research identifies antecedents of trust in the online context: of which the two most influential are institutional based beliefs of structural assurances ("the belief that there are safe mechanisms built into the website") and of situation normality ("having a familiar interface"), as reflective of confidence in the online market. In addition, Gefen points to the belief that the vendor has nothing to gain by cheating (calculative-based) as another antecedent of trust. Book and CD vendors were utilized for this research.

Figure 42: Gefen et al.´s Trust model



Source: Gefen et al., 2003

- In some cases, TRA and TPB models are utilized as the basis to which trust is incorporated when dealing with ecommerce activities. Jarvenpaa et al.'s analysis uses both models to conduct an analysis about the effect of trust on both attitude and perception of risk (1999). The relationships are confirmed and significant; the retailers being utilized are online bookstores and travel sites. This analysis also incorporates two antecedents of trust: store size and reputation.

- In the case of Van der Heijden et al. (2003) a combination of TAM and TPB models is utilized. The author builds on Jarvenpa's work to present a model where attitude is formed by the effect of four constructs, two of which come from TPB (trust and perceived risk) and the other two from

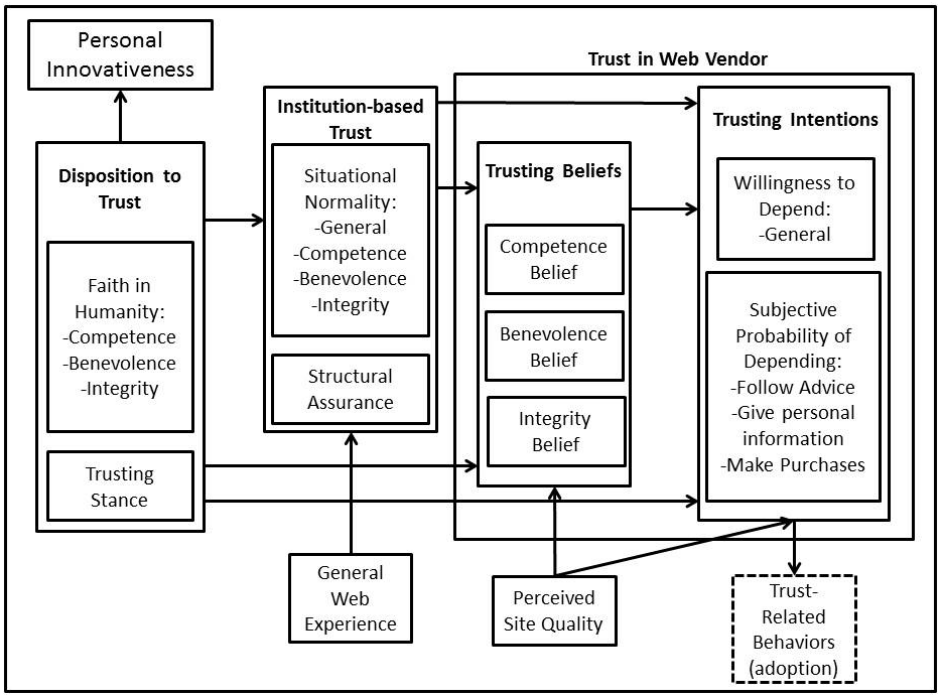
TAM (PEOU and PU). The result shows that the only impact of trust is an indirect one through risk, while both PEOU and risk influence directly in the intention to purchase but not PU. The author raises an interesting point about the potential impact of considering purchase intention as opposed to usage, as is stated in TAM. CD stores were utilized as the tested ecommerce sites.

- As an exception to the shortage of trust related research in the context of ECF, Savolainen (2016) proposes a model based on TPB that incorporates trust in order to explain the intention to use ECF platforms. His model builds on Bhattacherjee's ecommerce (2000) since the concept of ECF is closely linked to that of ecommerce as well as to investment online, as in this research paper. Savolainen categorizes the type of trust required to conduct an ECF transaction as a swift or fast one, according to Meyerson, Weick & Kramer (1996) since potential funders only count on a limited amount of time to search for signals that build their confidence in the project and do not have enough time to establish a long-term relationship with the creator. Trust is also fast at this point in time due to the novelty of ECF that prevents contributors from having an established track record of relationships with the platforms as an outcome from previous campaigns. The paper's results highlight the relevance of trust as the most influential component in intention when adding its direct and indirect effects, through PEOU. In the direct effect it is similar to PEOU's but lower than PU. However, Savolainen's research resulted in a trust direct impact on PU, which does not appear in our results. Regarding its scope, this study refers to the motivation of potential funders to work with ECF platforms while ours is to contribute to projects, which may in some way influence what should be taken into account.
- Another relevant academic paper about the application of trust to CF is Zheng et al.'s (2016), based on the Elaboration Likelihood Model for attitude change (Petty & Cacioppo, 1986). The authors posit that experience of previous successes significantly influences the success of

the current campaign, which we incorporate in our model in the trust part in the trust construct. Interaction between the creator and potential funders is also acknowledge as a main factor that will be incoporated to tour proposed model as part of the empathy construct. In our findings, direct contact through empathy also results to be a stronger predictor of success compared to the more indirect one.

- The approach used for the proposed model is that of Mcknight et al. (2002) for being comprehensive, operative and adapted to ecommerce. It is comprehensive because it addresses trust from the multiple perspectives that determine intention, of which we are especially interested in structural assurance, quality and benevolence. It is operational because it provides constructs at different levels of detail. And finally it is adapted to the scope of this piece of research by integrating trust conceptions with the ecommerce consumption process by individuals. From an innovation point of view Mcknight et al.'s is based on TRA in the sense that consumers' trusting beliefs influence trusting intentions and also determine trust related behaviors. All the reasons stated above make Mcknight's a particularly adequate framework for the present research.

Figure 43: Web trust model constructs and nomological network



Source: Mcknight et al., 2002

A summary of the of the trust related bibliography discussed above is presented in table 6, breaking down each paper by highlighting the context in which research is conducted, the model utilized as the research basis, as well as the significant relationships found where trust influences or is influenced by other TAM-related variables.

Table 6: Trust bibliography based on TAM related models analyzed

Author/s	Activity	Model	Significant relationships
Pavlou (2003)	E-COMMERCE e-retailers	TRA	TRUST → RISK (-) TRUST → PEOU (+) TRUST → PU (+) TRUST → INTENTION (+)
Chircu et al. (2000)	E-COMMERCE Online trip services	TAM	TRUST → PU (+) TRUST → PEOU (+) TRUST →INTENTION
Gefen et al. (2003)	E-COMMERCE e-retailers	TAM	TRUST → INTENTION (+) TRUST → PU (+) PEOU → TRUST
Jarveenpa et al. (1999)	E-COMMERCE Bookstores & Travel	TRA & TPB	PERCEIVED SIZE → TRUST (+) PERCEIVED REPUTATION → TRUST (+) TRUST → ATTITUDE (+) TRUST –> RISK PERCEPTION (-)
Van der Heijden et al. (2003)	E-COMMERCE Music	TRA & TPB	TRUST → RISK PERCEPTION (-)
Savolainen (2016)	ECF Platforms usage by backers	TPB	TRUST → PEOU (+) TRUST → PU (+) TRUST → ATTITUDE (+) INFORMATION QUALITY → TRUST (+) REPUTATION → TRUST (+)
Zheng et al. (2016)	RCF Projects funding by backers	ELM	TRUST → FUNDRAISING (+)
Mcknight et al. (2002)	E-COMMERCE Legal advice	TRA	TRUST → ADOPTION (+)

Source: Author

As a result of the above, trust will be incoporated as a second level construct including investor protection, project quality and resource availability as its antecedents, each of them operationalized in variables related to the CF context.

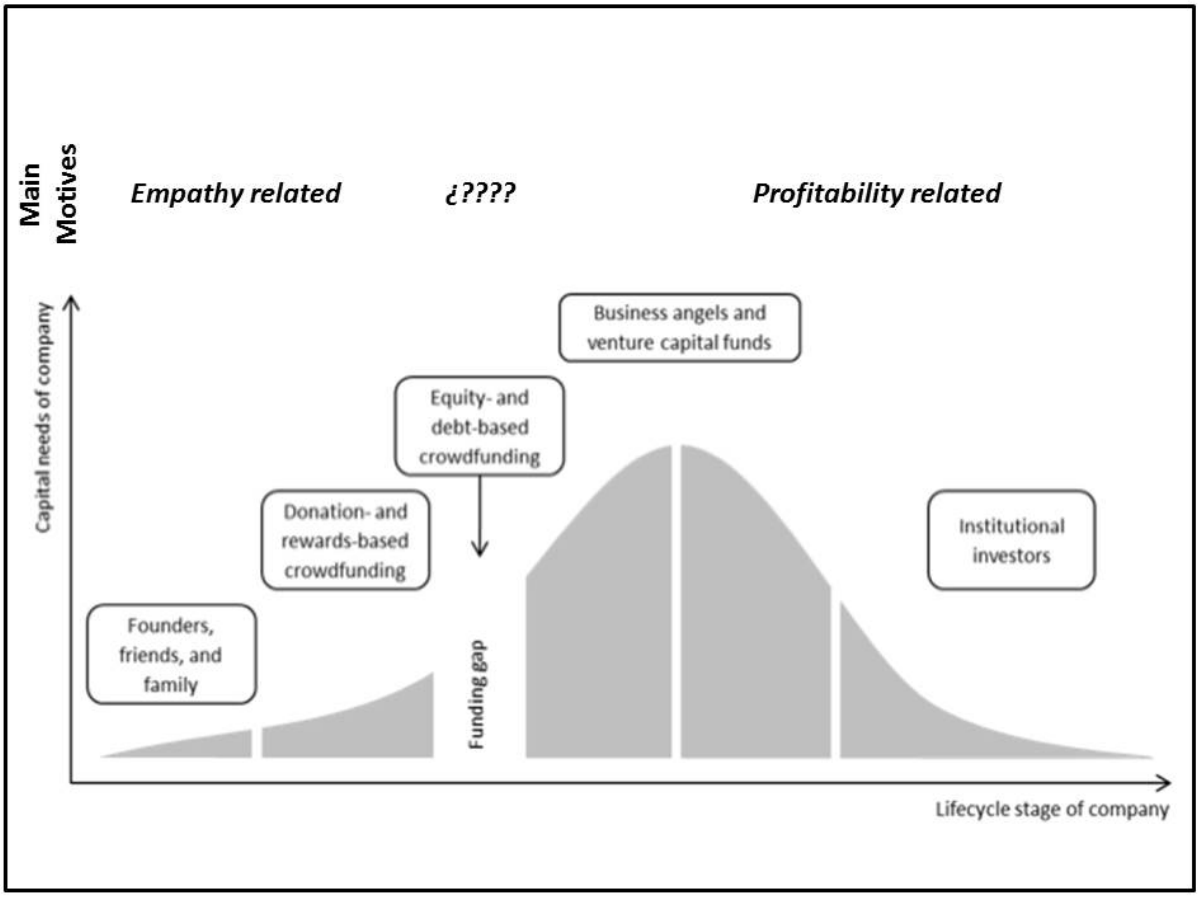
Up to this point the need of trust in the context of e-commerce towards the CF platform has been analyzed. In the next section the second type of trust assumed by ECF funders is studied: confidence in the project that searches funds and is considered as a startup venture.

3.1.3. Early stage venture funding

The third stream of literature analyzed subsequently deals with risk associated with the ECF project as an early stage investment. From the funders' perspective, this financial profitability component underlies in some manner all interviews carried out for this research to the extent that return on investment was the only motivation for one interviewee in this research, who had built a portfolio of ECF projects as the only financial source for his retirement.

From a project point of view, financing follows a life cycle similar to that of the venture (Cassar, 2004). In an early stage, startups are financed with funds from the creator, friends and family; then by donation CF and RCF during the initial concept and seed stages. ECF enters the picture at a later step, in between the initial stages and prior to the participation of business angels, venture capital and institutional investors. Figure 44 illustrates how the various stages of the business correspond in time with different funding sources and changing motivations.

Figure 44: Business lifecycle and sources of funds at each stage



Source: Author, modified from Lukkarinnen (2016), Rossi (2014) and World Bank (2013)

Contributing to a CF campaign is a do-it-yourself activity where potential investors provide funds directly to the project without the support of an advisor, as opposed to the traditional process where a financial counselor acts as an intermediary. Project creators know their business in depth but that is not the case with potential investors, who face information assymetry very common to investment activities. In the case of ECF this asymmetry is even greater because funders have a limited time to make a decision and, in addition, do not possess all necessary knowledge (Ahlers et al., 2015). Moreover, by operating autonomously, individual investors do not have the

same access to relevant data as professional investors. As a consequence of all of the above and to overcome their inferiority situation, potential funders need to identify signals about the project quality, as stated by the signaling theory (Spence, 1973).

As a fundamental purpose of this research, the level of sophistication implied in the decision to invest in ECF by funders will be analyzed. Are the criteria that guide the evaluation conducted by RCF backers of their participation in an ECF campaign closer to those of professional investors or are they more sentimental? The revised literature on financial constraints in the decision to invest in ECF highlights lack of agreement about the extent to which ECF funders follow profitability related criteria similar to business angels and venture capitalist.

On one hand, existing literature indicates that in the case of RCF investors, immaterial criteria prevail, while ECF funders are mainly guided by financial reasons (Fraunhofer, 2011; NESTA, 2012). In the context of this research, intrinsic motivations related to affinity with the creator and the project will be included and tested as antecedents of the empathy construct. However,

On the other hand, ECF is a substantially different context that will be analyzed separately since this type of commitment implies the risk of losing up to all funds contributed and also an expectation of obtaining results over a period of time that is substantially longer than the RCF scenario. Results from Ahlers et al.'s posit that signals related to the venture quality utilized by business angels and venture capitalists, such as the reputation of its management and supporters, as well as its intellectual capital, in the sense of its innovativeness, do not influence the funding success of ECF projects. However, given the different nature of the funders (ECF in the case of Ahlers et al.'s while RCF in this research) these variables are incorporated into the hypothesis of the present model to be tested. Cholakova et al. (2016) tries to find out if funders follow the principle of cognitive evaluation theory in the sense that funders initially guided by intrinsic motives (related to empathy with the project cause or with the promoter), when facing the presence of extrinsic conditioners (financial) end up opting for the latter (Deci & Ryan, 1985). The results of this research point to the financial motivations, since collecting financial rewards results in the motivation that leads to investing. However, the authors posit that the

fact of being guided by profitability does not imply a detraction of funds previously assigned to RCF (that is to say, there is no crowding out), since the total amount pledged ends up being larger and dedicated to both RCF and ECF.

With opposite results, Lukkarinen et al. (2016), in trying to ascertain the decision criteria of ECF funders, find that they are guided by non-financial criteria more similar to those of other CF types, than to more professional BA and VC investors. In this case, the type of funder selected may have influenced the choice of motives since, despite being ECF funders, 86% of them had only participated in one campaign, which may imply a lower level of sophistication in comparison with the aforementioned studies. A summary of the above mentioned papers on ECF motives and their findings is visualized in table 7.

Table 7: Motivations in equity crowdfunding campaigns

Authors	Motivations for funding ECF	Nature of predominant motives	Funders' profile
Ahlers et al., 2015	Signals: • Retain equity • Provide more detailed information about risk	Financial (Extrinsic)	ECF funders
Cholakova et al., 2016	• Obtain financial return • Trust	Financial (Extrinsic)	RCF and ECF funders
Lukkarinen et al., 2016	Non-financial motives: • Pre-selected crowdfunding campaign characteristics • Utilization of private and social media networks	Non-financial (Intrinsic)	ECF funders (86% one-time only)

Source: Author

The above discussion highlights lack of agreement about the extent to which ECF funders follow profitability related criteria similar to business angels and venture

capitalist. Therefore, the project quality components that include these signals (management, supporters and innovativeness) will be incoporated to our proposed model as antecedents of the quality construct and part of the trust element, for test.

Once analyzed the potential extrinsic reasons in the intention of the ECF funders to back a project, we proceed to study the intrinsic motives and their influence in the following section.

3.1.4. Empathy and the role of the community

In addition to the technological adoption, trust and financial aspects, CF implies a strong social perspective that is incorporated to the present model. By analyzing this component, we will try to find out until what extent the community element is also present in ECF and, if positive, which ones are its driving factors.

As part of this social component CF is close to collaborative consumption since both are based on the sense of community and social capital (Fukuyama, 2001). Moreover, both practices are fostered by enabling technologies that have reached the mass market, like internet and mobile phones (Botsman, 2010).

CF communities in general share a strong social capital, that acts as a cohesive force among citizens, who take the initiative of substituting products and services not provided by traditional institutions (Fukuyama, 2001). In the case of ECF this community asset facilitates the provision of funds through an alternative source to the traditional financial system and in exchange of a share in the venture.

The social component of CF is also linked with crowdsourcing in the sense that both are open calls to the crowd via the internet. As a matter of fact, CF can be considered as a type of crowdsourcing that calls for funds, as opposed to other type of contributions.

Throughout the interviews conducted as part of this research, the sense of community emerged in the feeling of belonging to groups of individuals interested in common themes: wind energy (Vortex), wine (Garnacha Vella) and music (La Inégalité). All these communities of creators and funders transpired an emotional motivation deeply linked to empathy with the cause and to the individuals among themselves.

Academic publications already exist that point to the community component present in funders' motivations to contribute to CF projects. A comprehensive literature review about motives for funding was conducted, in search for community reasons are expected to emerge.

Empathy related motives are extensively acknowledged as the main reason behind contributing to RCF campaigns (Fraunhofer, 2011; NESTA, 2012; Gerber & Hui, 2013). The self-determination theory categorizes these drivers as intrinsic, since they are intimately originated by individuals and are different to the extrinsic ones analyzed in the previous section (Deci & Ryan, 1985).

By applying the theoretical model of consumption value (Sweeney & Soutar, 2001), Harms (2007) identifies a comprehensive list of affinity related motives that influence funders and will be analyzed in detail in the discussion about components of the proposed model in the next section.

Affinity related motives are connected to innovator-related theories like Lead users (Von Hippel, 1986), early adopters (Rogers, 2003) and personal innovativeness (Agarwal & Prasad, 1998). The social component of affinity is closely connected with herding behavior in a manner that will be analyzed in the discussion about the social influence construct.

The literature review conducted about CF motives has identified a wide variety of empathy-related reasons for supporting CF campaigns that can be grouped in two main areas: affinity with the promoter and affinity with the project. Their analysis and

influence on intention will be studied in the following section where research hypotheses are formulated.

3.1.5 Personal innovativeness

ECF's close relationship with innovation is mentioned in numerous occasions throughout this document: it is not only a novel way of operating in the field of financial services whose disruptive potential is being observed but also contributes to the innovation of numerous ways as discussed in the value chain section.

Certain works take innovative personality as a psychographic characteristic of the potential adopter that can act as a powerful driver of both the intention to adopt and the behavior finally realized. Defined as "the general propensity of a consumer to adopt new products", is collected in Arts et al. (2011, p. 136) as one of the determining variables in the consumer's decision to adopt new products and services. The results of this work reinforce its significant positive impact on the intention to adopt and, to a lesser extent but equally significant, on the subsequent behavior.

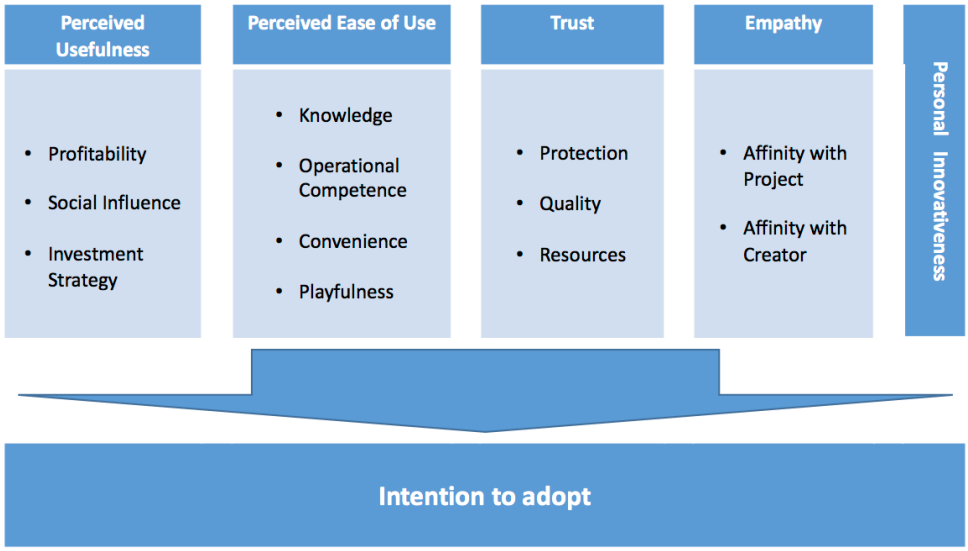
Limayem et al. (2000) reached similar conclusions. In their research related to the factors affecting online shopping, the results provide strong support for the positive effects of personal innovativeness on attitude and intentions to shop online.

However, a clear unanimity among the authors does not seem to exist in relation to the explicit importance that innovativeness has had in the literature on intention and behavior of adoption. On the one hand, Kaushik and Rahman (2014) in their literature review on the innovative propensity of the consumer, recognize the existence of a category of jobs oriented to establishing the relation between innovation adoption behavior constructs and innovativeness. On the other hand, “the role of consumers’ innovativeness has not been investigated despite its importance. Personal innovativeness was found to transform consumer actions from static, routinized purchasing to dynamic and continually changing behavior” (Limayen et al.

2000, p. 422). From this perspective, a theoretical contribution of potential relevance can be its explicit inclusion in the model of adoption intention of this paper. Subsequently, innovative personality is incorporated into the proposed model as a factor in order to assess its influence in the adoption of ECF.

In this first part of the chapter, academic literature has been extensively reviewed in search of identify relevant factors for the proposed model. Streams of literature analyzed are related to: adoption of technology, trust in the context of e-commerce, early stage venture funding, empathy and the role of the community and, finally, innovative personality. As a result, a list of factors for the adoption of ECF by RCF funders has been developed. The combination of these variables and their relationships represents the proposed model that is summarized in Figure 45.

Figure 45: Proposed model for adoption of equity crowdfunding by rewards crowdfunding backers



Source: Author

3.2. PROPOSED MODEL AND HYPOTHESES

The selected foundation for the theoretical framework of this research is the literature on adoption of technological innovations, in particular the TAM model. From that ground, components about the influence of trust in ecommerce, startup investment and crowdfunding have been added.

The basis for the proposed model is the TAM3 (Venkatesh & Bala, 2008) since this theory has been applied extensively with satisfactory explanatory power. Even though TAM is an intention based model, the correlation between intention and behavior is widely documented in academic literature (Karahanna et al., 1999; Mcknight et al., 2002).

Throughout this section we will review each one of the variables that constitute the adoption model proposed in this thesis. For each of them, relevant references are included that demonstrate the validity of these factors in analyzing the adoption of new technologies, as well as their potential application to RCF and ECF. Table 8 summarizes the factors finally selected with the main bibliographical references that support their choice.

Table 8: Summary of constructs and their antecedents that compose the ECF adoption model, plus their main references

Constructs	Antecedents	Authors
USEFULNESS	Profitability	Agrawal et al. (2014), Collins & Pierrakis (2012), Cholakova & Clarysse (2015), Gerber & Hui (2013), Konana & Balasubramanian (2005), Lukkarinen et al. (2016), Ordanini (2011), Deci & Ryan (1985), Bhattacherjee (2000)
	Social Influence	Hahn & Lee (2013), Harms (2007), Kim & Viswanathan (2014), Kuppuswamy & Bayus (2013), Lin et al. (2014), Savolainen (2016), Ward & Ramachandran (2010), Xu et al. (2014), Fishbein & Ajzen (1975), Venkatesh & Davis (2000), Venkatesh & Bala (2008), Von Hippel (1986), Sun (2013), Fischer et al. (2011)
	Investment Strategy	Ahlers et al. (2015), Cholakova & Clarysse (2015), Konana & Balasubramanian (2005), Deci & Ryan (1985), Michael (2009), Epstein & Schnedider (2008)
EASE OF USE	Knowledge	Compeau & Higgins (1995), Brush & Artz (1999), Bandura (1978), Taylor & Todd (1995), Barber & Odean (2001a, 2001b), Fischoff et al. (1977)
	Operational competence	Konana & Balasubramanian (2005), Savolainen (2016), Konana et al. (2000), Parasuraman et al. (1988), Berry et al.(2002), Venkatesh (2000), Balasubramanian et al. (2003), Kim et al. (2004)
	Convenience	Konana & Balasubramanian (2005), Berry et al.(2002), Bateson (1985), Meuter et al. (2000), Rayport and Sviokia (1995)
	Playfulness	Harms (2007), Jarvenpaa & Todd (1997a, 1997b), Rice (1997), Eighmey & McCord (1998), Perea et al. (2004), Venkatesh (2000), Davis (1992)
TRUST	Protection	Agrawal et al. (2014), Balasubramanian et al. (2003), McKnight et al. (2002), Saphiro (1987), McAllister (1995), Zeithalm et al. (2000)
	Quality	Ahlers et al. (2015), Lin et al. (2014), Lukkarinen et al. (2016), Mollick (2012), Moritz et al. (2015), Zheng et al. (2016) , Balakrishnan & Koza (1993), Spence (1973), Franke & Gruber (2008), Fried & Hisrich (1994), Shepherd (1999), Beckman et al. (2007), Baum & Silverman (2004), Lukkarinen (2016)
	Resources	Konana & Balasubramanian (2005), Savolainen (2016), Venkatesh et al. (2003)
EMPATHY	Affinity with project	Agrawal et al. (2014), An et al. (2014), Collins & Perrakis (2012), Gerber & Hui (2013), Harms (2007), Hemer (2011), Schwienbacher & larralde (2010), Ordanini (2011), Deci & Ryan (1985), Rogers (2010) , Agrawal et al. (1998)
	Affinity with creator	Agrawal et al. (2014), Collins & Perrakis (2012), Gerber & Hui (2013), Giudici et al. (2013), Harms (2007), Lukkarinen et al. (2016), Zheng et al. (2016), Adler & Kwon (2002)
PERSONAL INNOVATIVENESS		Arts et al. (2011); Limayen et al. (2000); Kaushik & Rahman (2014)

Source: Author

All the existing literature about the TAM model in the online context where ECF operates and that has been reviewed in the previous section allows to state that the constructs PU and PEOU have been extensively acknowledged to have a direct positive effect on intention (King & He, 2006; Perea et al., 2004). According to that, the first two hypotheses are formulated:

Hypothesis 1: Perceived usefulness (PU) has a direct positive impact on intention.

Hypothesis 2: Perceived ease of use (PEOU) has a direct positive impact on intention.

In the same way and according to the previous references, the positive influence of the trust construct on ecommerce purchase intention is widely documented in academic papers (Gefen et al., 2003; Pavlou, 2003), which allows outlining the following hypothesis:

Hypothesis 3: Trust has a direct positive impact on intention.

Despite the novelty of CF as a phenomenon, the empathy construct is posited as antecedent of intention in numerous papers (Nesta, 2012; Gerber & Hui, 2013; Harms, 2007; Fraunhofer, 2011; Lukkarinen et al, 2016). Therefore, the following hypothesis is formulated:

Hypothesis 4: Empathy has a direct positive impact on intention

The relevance that the personal innovativeness of the CF investor can have in motivating the transition from the reward modality to the equity one has been raised in previous sections insofar as it has a reflection on the level of empathy and in the affinity with the project in which he/she decides to participate.

According to that, a final hypothesis is formulated as follows:

Hypothesis 5: Personal innovativeness has a direct positive impact on intention.

For each of the above constructs, the literature has identified antecedent factors, some of which have been anticipated in previous epigraphs and are now discussed in detail.

3.2.1. Profitability

Profitability is the result that funders expect to obtain in exchange for their contribution to the campaign. It can either take the shape of a product or similar in the case of RCF or financial returns for ECF.

RCF sponsors in general expect to obtain rewards such as the pre-purchase of an item, before it is sold to the mainstream. This often implies a higher cost when compared with the market price due to the early stage of the production, extra price that they are willing to pay based on the value assigned to this early possession (Gerber & Hui, 2013). The return can also be something different than the item produced in the RCF project, such as a being mentioned in the credits of a movie, meeting the creator or receiving a T-shirt with the campaign logo. In any case, RCF funders obtain the benefit of a recognition either tangible or intangible.

RCF rewards are considered as intrinsic motivators originated form the individual´s inner beliefs. However, in the case of ECF financial profitability is acknowledged as an extrinsic motivation in the sense that it is provided to the consumer from the outside. (Deci & Ryan, 1985)

In the case of ECF it is widely asumed that extrinsic motivation in the form of return on investment is amongst the main drivers for investors (NESTA, 2012; Ordanini, 2011; Bhattacherjee, 2000). However, according to Lukkarinen et al., (2016) it might not exclude intrinsic motivators since in the case of amateur ECF backers, other factors related to the campaign characteristics and to the community may be more influential than monetary profit.

The main purpose of this research effort is to unveil the extent to which these extrinsic motivations influence the intention of RCF sponsors to the point of funding ECF campaigns, and what is the interaction with RCF motives. Research from Cholakova and Clarysse (2015) posits that both are compatible and even reinforcing since ECF investors when offered to support RCF campaigns ended up funding both.

Thanks to ECF non-experienced investors can participate in ventures previously restricted to the professionals (Agrawal et al., 2014). Furthermore, ECF enables amateur investors to dedicate a portion of their savings portfolio to this type of financial asset considered as risky (Konana & Balasubramanian, 2005). Accordingly, it can be expected that the forecasted return has a direct positive impact on perceived usefulness.

3.2.2. Social Influence

Social influence captures the essence of subjective norm from the TAM3 model: “The degree to which an individual perceives that most people who are important to him think he should or should not use the system” (Fishbein & Ajzen, 1975; Venkatesh & Davis, 2000). According to TAM3 social refers not only to the consideration of others’ opinión about the new technology but also the influence that it may have in enhancing one’s image (Venkatesh & Bala, 2008).

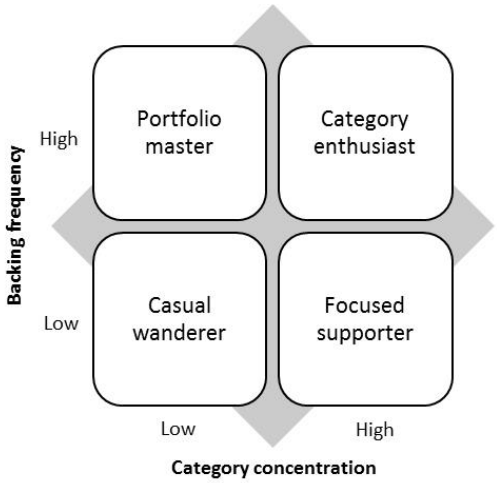
In the context of ECF potential funders face a new model and therefore their decision implies a higher risk than in a business as usual situation. As a consequence, they seek opinions from others as inputs that reduce uncertainty and help them in making an informed decision. Influences may come from peers (interpersonal influences) and also from external sources, the latter by means of social networks or other mass media (Savolainen, 2016).

For individuals, ECF is a way to access a superior class of innovators (Harms, 2007), that is being peers with early adopters in the sense of visionaires from Von Hippel’s lead users (1998) since at this early stage, ECF is only accesible to financial minorities. In addition, participating in an ECF campaign provides access to deals that were only accesible to experts in the past, therefore reinforcing the feeling of belonging to an elite and enhancing one’s own perception.

Furthermore, in the context of technology adoption social image is deeply connected to herding behavior, with some differences acknowledged by Sun (2013). Herding behavior of potential contributors has been analyzed by academics in the context of crowdfunding. Kim & Viswanatha (2014) analyze the influence of experienced investors on amateurs in the case of platforms where both coexist. From the perspective of the difussion of responsibility effects (Fischer et al. 2011), Kuppuswamy & Bayus (2013) posit the influence of previous donations in crowdfunder's behavior in the sense of not contributing if they believe their money is not needed or, on the opposite, pledging at the end of the campaign when the goal is not being reached. Ward & Ramachandran (2010) use the case of a RCF platform Sellaband to illustrate how peer information drives the success of CF campaigns in a greater extent than other variables. In the case of Xu et al. (2014) the authors demonstrate how using certain words in the communications during the campaign contributes to increase pledges.

Some authors even identify clusters of funders that behave and influence in a distinctive manner: Lin et al (2014) identify active backers, trend followers, the altruistic, and the crowd. Hahn & Lee (2013) acknowledge differences among funders that influence their pledging strategies.

Figure 46: Tipology of crowdfunders



Source: Hahn & Lee (2013)

3.2.3. Investment Strategy

Getting involved in an ECF campaign no longer implies just providing funds to get a reward as is the case of RCF. Decisions about the investment strategy in the ECF context involve a process with a strong extrinsic rational component, as per Deci & Ryan (1985).

The rational process would be as follows: an individual determines what part of his/her income he/she wants to dedicate to each goal: current expenses, investments, others. Within the investment portfolio, a decision needs to be made about allocation of funds, depending on the individual risk tolerance that is specific for each person (Cholakova, 2016). ECF projects emerge as a new alternative to listed stock within higher risk investments class. The result of this rational process is a decision about the amount to be invested and a search within ECF platforms for campaigns that meet the individual's requirements.

In the past this process was impossible to be conducted without the help of a financial adviser in a face to face activity. This changed thanks to the technology that empowered private customers by allowing them to perform operations in a remote manner. This evolution that occurred in the 1990s gave way to the explosion of online investing, with customers gathering the necessary information to make investment decisions by themselves. The model of Konana and Balasubramanian (2005) sets out the issues that individual investors consider when making an investment decision. For the purpose of the model built in this research, those variables are incoporated due to the similarity between both phenomena.

To what extent is participation in ECF projects the result of a rational process of managing the investment portfolio, as in the case of the interviewee funder mentioned above that intends to live on the expected returns during retirement? Or, at the opposite extreme, is it the result of a not-planned opportunistic decission? To

what extent does the funder use ECF as a vehicle to manage his investment portfolio in search of rational efficiency?

Return is a component that influences the rational decision to contribute to a CF Project. For its assessment funders must obtain information about the expected cash flows of the venture. However, an information assymetry exists when compared to the information that the creator possesses.

To reduce the asymmetry of information in relation to the creator and evaluate the potential of the business, the potential funder needs to have the numbers of the business plan: assumptions and results. If financial projections are attractive, investors will be encouraged to invest, but even the mere fact of having detailed projections is already considered as a positive signal about the potential of the venture (Michael, 2009; Epstein & Schnedider, 2008); It could be said that in evaluating the financial projections, the amateur funder approaches the BA and VC criterion, although it is known that it is not the fundamental criterion used by these agents since, due to the early stage of the business, they assess quality by applying another type of more related criteria (Ahlers, 2015).

3.2.4. Knowledge

Knowledge refers to TAM's self-efficacy concept: "the degree to which an individual believes that he or she has the ability to perform a specific task/job using the computer" (Compeau & Higgins, 1995). In the TAM model it is one of the constructs called "anchors" that is antecedent of PEOU.

In the context of ECF, self-efficacy implies having minimal notions not only about technology but also finance, legal and operational matters related to understanding how to evaluate the return of the investment, assess exit conditions and interpret the drag coefficients in contracts. In an analogous way to online trading, investing in ECF requires preparedness superior to other ecommerce activities (Brush and Artz,

1999). Interestingly enough, a common characteristic amongst funders interviewed, both RCF and ECF ones, is that all of them had an acceptable level of knowledge in all these areas, even in the case of those whose main reason to contribute to the campaign was their personal relationship with the creator. This might reinforce the assumption about the need of knowledge as a basic requirement to funding.

The concept of self-efficacy -originated in the social cognitive theory- posits that the perception of an individual about his ability to perform a task determines the final outcome (Bandura, 1978). In the decomposed Theory of Planned Behavior (DTPB) self-efficacy represents the internal control that, together with the external control determine perceived behavioral control which subsequently influences intention (Taylor & Todd, 1995).

In a situation of assessing the capacity to use a new model as is ECF, the only perception one has is the internal self-assessment about the capability to conduct it. In the present research and after having previously pledged to RCF campaigns, will the funders consider themselves qualified enough to operate in ECF or, on the contrary, will they think that the new model is too complicated for them? Until what extent will this self-assessment affect their perception about the ease of use of ECF?

Dealing with individuals who have operated independently in at least one RCF campaign one might assume that they would convey some confidence in their ability to perform innovative tasks.

Using the analogy of online investors, research postulates that after having spent time and effort collecting information to make a decision, funders consider that their knowledge is superior to what it objectively is (Barber & Odean, 2001a). Likewise, it is possible that backers consider that their valuation of the projects is superior to the one conducted by others, named overconfidence and posited by academics to happen to inexperienced investors (Barber & Odean, 2001; Fischoff et al. Al, 1977).

3.2.5. Operational competence

Operational competence refers to the ability of the ECF platform to conduct the transaction in a timely and error free manner while providing punctual information about the results (Konana et al., 2000). It is captured in the reliability item of the service quality SERVQUAL model (Parasuraman et al.,1988) and is also a component of the service transaction convenience construct as considered by Berry et al. (2002).

In the TAM model this variable is partially captured by the construct objective usability and evaluated by measuring the time required to perform certain activity (Venkatesh, 2000). Even though objective usability in TAM is an antecedent of usefulness, this is not always the case since it precedes trust in other occasions such as Savolainen (2016). Furthermore, in this paper the relevance of time and effectiveness implied by ECF investment made us place operational competence as an antecedent of ease of use that ends up being the most influential construct.

Operational competence is a key component in the provision of financial services due to the monetary implications of small errors, in particular when dealing with large transaction volumes. Effectiveness is also the reason why individuals move from face to face to online channels since they can conduct the same transactions with the same or higher level of accuracy in a remote manner (Konana & Balasubramanian, 2005). In this context the goal of the ECF platform is to provide funders with a perceived experience of operational excellence, even though the underlying processes might be imperfect (Balasubramaninan et al., 2003). For Kim et al. (2004) and in the case of ecommerce, the ability of the supplier, in this case the CF platform, to carry out operations with high levels of quality is a factor that influences especially the loyalty of customers and their satisfaction, although in the model of potential customers it is not significant.

Even though ECF potential funders are willing to operate in a self-service environment without personal support, ensuring ease of use through operational

competence of the platform might be a prerequisite whose magnitude is tested in this research.

3.2.6. Convenience

This construct captures the concept of access convenience stated by Berry: “Access convenience involves consumers’ perceived time and effort expenditures to initiate service delivery. It involves consumers’ required actions to request service and, if necessary, be available to receive it” (Berry et al., 2002).

In financial services, individuals who operate in a self-service environment value the lack of personnel involvement that makes customers independent of the supplier’s open hours (Bateson, 1985; Verma and Iqbal, 2007). It is also one of the key motivators for the growth of self-service technologies (Meuter et al., 2000) and a key driver of customer satisfaction with online services (Rayport & Sviokia, 1995).

In the online investment context convenience is the ability to conduct transactions at the time, from the place and using the desired devices, without the need to be concerned about open hours of the financial advisor. Some online investors value their convenience to the point of feeling inconvenient to deal with persons (Konana & Balasubran, 2005).

3.2.7. Playfulness

Playfulness captures the feeling of enjoyment inspired by contributing to an ECF campaign before, during and after the transaction. This intrinsic motivation emerged in most interviews conducted during this research in different forms: the fun of learning about new companies, enjoy a free flight, attend a concert or become familiar with vineyards in the northwest of Spain. In a similar note, when applied to

CF, Harms (2007) refers to enjoyment as an attribute that is part of emotional value and is captured in the conversations among participants of online newsgroups.

In the ecommerce arena, enjoyment is a determinant of customer loyalty (Jarvenpaa and Todd 1997; Rice 1997; Eighmey & McCord 1998. Perea et al., (2004) identify three manifestations of the enjoyment construct: escapism, in the sense of flow; pleasure, related to having fun; and arousal, that is connected to feeling stimulated during the activity.

In the proposed model playfulness reflects the meaning of the perceived enjoyment construct in TAM, that is, "The extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use" (Venkatesh, 2000, p. 351). It is an intrinsic motivation that influences consumers when using a system by increasing the perception about ease of use (Davis et al., 1992). In the TAM model, the effect of a systems' perceived enjoyment arises when used, thus being an adjustment factor.

Moreover, the playfulness construct in the proposed model captures part of the significance of TAM's computer playfulness "…the degree of cognitive spontaneity in microcomputer interactions" (Webster & Martoccio, 1992). This anchor motive precedes the use of a system and deals with the expected enjoyment that user will experience, which, subsequently influences positively its perceived ease of use.

3.2.8. Protection

Protection of potential funders is an essential element for ECF due to the potential loss of all their investment in particular after the damages occurred in the financial crisis of the first decade in this century. Not surprisingly, legislators have taken a substantial amount of time to approve the ECF legislation after having passed RCF laws. However, even though the reputation of large financial institutions suffered as a result of misconducts, moving to operate through a crowdfunding platform implies a

substantial risk since both these fintech companies and their managers lack track record in the activity.

The protection construct deals with the environmental security that ECF contributors expect to experience (Balasubramanian et al, 2003). This institution based trust includes structural assurance - the feeling that an institution exists that supervises financial intermediaries to ensure consumer safeguards (Mcknight et al., 2002).

Social/institutional safeguards, refers to the role played by institutions such as the Securities and Exchange Commission (SEC) and the various stock exchanges in prescribing minimum performance standards, monitoring performance levels, and punishing substandard performance and fraud (Saphiro, 1987).

In their analysis of the major disincentives to participate in a CF campaign, Agrawal et al., (2014) identify fraud as one of the most relevant: when operating in an independent environment individuals might be victims of manipulation or false information which might be aggravated by their performing inadequate due diligence in an attempt to avoid costs.

Protection emerges as a relevant factor for ECF due to the fact that this activity is conducted in a setting with no personal contact (McAllister, 1995) where consumers are poorly prepared to assess the service and operational quality received (Zeithalm et al, 2000).

As a result, the protection construct proposed for the present model incorporates an expectation of good practices from the ECF platform in the form of fair price and information accessibility; it also includes the trust in the system in the form of financial institutions and regulatory bodies (Balasubramanian et al., 2003). Mcknight at el, (2002) consider them as institutional based trust and trusting beliefs that influence intention and precede behavior.

3.2.9. Quality

Potential ECF funders must feel have a double trust: on the platform and on the project; the first one was analyzed under the protection construct while the second will be analyzed under the quality construct.

Possible backers must assess the quality of the venture in order to make a decision about its attractiveness prior to pledging funds. In order to overcome information asymmetry (Balakrishnan & Koza, 1993) they will look for signals that provide with clues (Spence, 1973). Business angels and venture capitalists who invest in a regular manner use indicators related to the management team's experience as well as to the value of the product (Lukkarinen et al, 2016). Ahlers et al., (2015) posit three types of signals related to the quality of ECF projects: management quality (human capital), backer quality (social capital), and product/service quality (intellectual capital).

Regarding management quality, a number of papers identify this factor as a valid signal for business angels and venture capitalists: educational degrees and past performance of the management team appears as the best indicator for future success (Franke et al., 2008; Fried & Hisrich, 1994; Shepherd, 1999; Mollick, 2012; Burton et al., 2002; Beckman et al., 2007).

The quality of the backers that support ECF projects is assessed by their social capital (Baum & Silverman, 2004), which is partially connected to herding behavior. Interestingly enough, indirect recommendations of campaigns are more appreciated by potential funders than direct ones from entrepreneurs towards possible backers. Moritz et al, (2015) posit that third party endorsements influence to a great extent the decision in ECF ventures, while Zheng et al., (2016) postulate in a similar manner in the case of RCF projects. Along the same line, Lukkarinen (2016) acknowledges the influence of private and public networks in the decisions of ECF funders.

Opinions from third parties are considered differently. Lin et al (2014) identify clusters among Kickstarter funders that behave differently one another after having observed the pledging activity of members from a different cluster: active backers, trend followers, altruistic and the crowd. Moreover, when dealing with investors who are also experts in an application development CF platform, potential contributors consider the opinion of developers investors for concept apps while that of experienced investors is more valued in the case of live apps that are further in their life cycle.

3.2.10. Resources

Resources represent the necessary means that funders need to possess in order to conduct the ECF activity. In the TAM model this construct is represented by facilitating conditions: “The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system” (Venkatesh et al., 2003).

In the do it yourself environment where ECF funders operate, individuals enjoy the feeling of Independence but at the same time must ensure that all needed resources are available to them (Konana & Balasubramanian, 2005).

In that context, the requirements are essentially computers and funds: the first one to access the ECF platform and the second to be able to invest. In ECF, monetary resources are more relevant than in RCF due to the fact that the return will be obtained at a later moment in time and also because the amounts needed might be higher than in the case of RCF.

In the technology component, having the necessary means to access online is the only requirement (Savolainen, 2016).

3.2.11. Affinity with Project

The affinity of potential funders with the project involved in a CF campaign is in the inner nature of CF and deals with intrinsic motives of individuals to do things, in line with the self-determination theory (Deci & Ryan, 1985). In an interview conducted for this paper that reason emerged in the shape of desire to see a movie made a reality without needing banks and allowing the author to maintain the control of the creative project.

The idea of funders supporting projects with which they feel identified for non-financial reasons is represented in the CF literature since its early stages (NESTA, Perrakis, 2012; Fraunhofer, 2011), even more intensively in the case of frequent investors (An et al., 2014).

Affinity with the project cause deals with supporting a venture that matches the funder's inner beliefs while also might be feeling good to allow the creator keep control of his/her project (Gerber & Hui, 2013). It also implies a functional value in the shape of being able to obtain a reward desired by the funder, or allow contributors the social value implied in self express themselves, and even an epistemic value of learning about something new by being involved in the project (Harms, 2007).

All the above mentioned motivations move potential funders to contribute to the project in shapes additional to the monetary dimension such as providing their expertise (Schwienbacher & Larralde, 2010), or even providing funds but not demanding the promised reward in exchange (Gerber & Hui, 2013).

An additional dimension of the affinity with the project is the desire of funders to be innovators, in line with lead users from Von Hippel (1986), Rogers' early adopters (2003) and personal innovativeness (Agarwal & Prasad, 1998). Ordanini identifies "to be engaged in innovative behavior" as this aspiration common to most CF contributors (2011). Agarwal et al. (2014) posit that being involved in a CF campaign allows funders to combine access to products of which they are fans before others

while contributing to create value to the projects by aligning his aspirations with those of the venture.

3.2.12. Affinity with Promoter

Affinity with promoters is acknowledged as a reason for supporting RCF campaigns (NESTA, 2012); and this research tries to figure out until what extent it is also a driver in ECF. Individuals like to feel part of a community of peer investors because it allows them feel how they help other who need it as a positive emotion of being altruistic (Harms, 2007). Persons that are close to creators acknowledge the effort implied and therefore like to support their peers with the aim of feeling part of its success, in fact CF serves as an operational infrastructure to channel the monetary support of backers (Gerber & Hui, 2013). In the interviews conducted for this research, the affinity of backers with promoters had the form of family (La Inégalité musical group), business acquaintance (Cepas de la Culebra wine) and friend (Mensaje post-itivo movie).

Technology contributes to the peer support goal by reducing geographical barriers thus allowing creators obtain funds from members well above their community (Agrawal et al., 2014). As an example the Vortex project whose management was interviewed for this paper, was published in the US platform Indiegogo and obtained funds from both sides of the Atlantic thanks to the geographical reach of the CF platform.

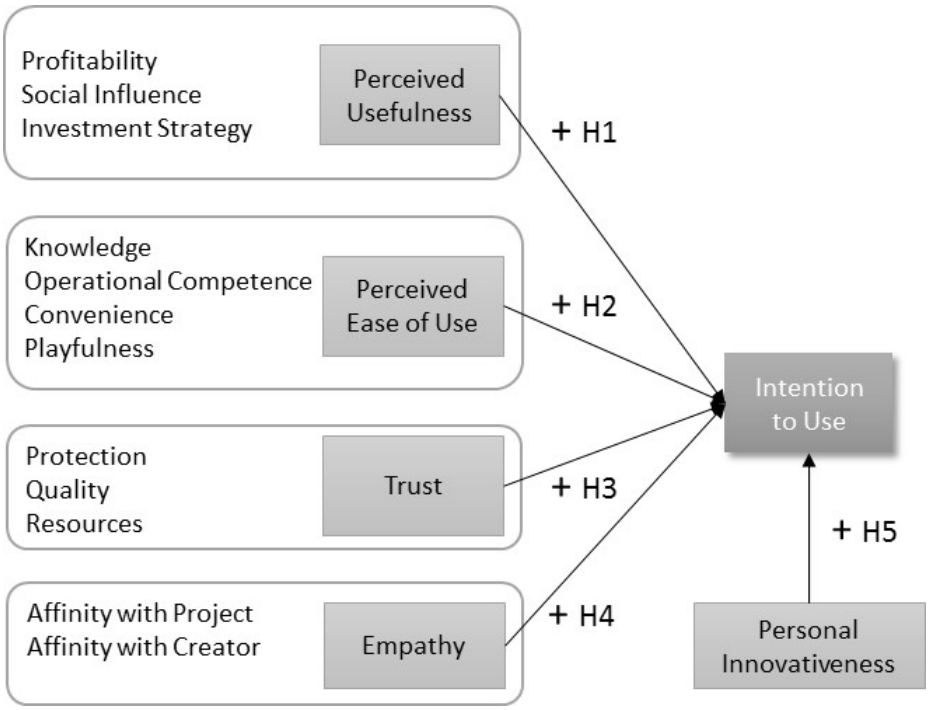
In the case of friends, their support to CF projects goes beyond their monetary support since their contributions in the early stages of campaigns are perceived as positive signals about the quality of the venture that subsequently activate other backers. (Agrawal et al., 2014).

The influence of the peer group is such that a creator's social capital is linked to the success of the CF campaign (Giudici et al., 2013). Social capital is defined as "the

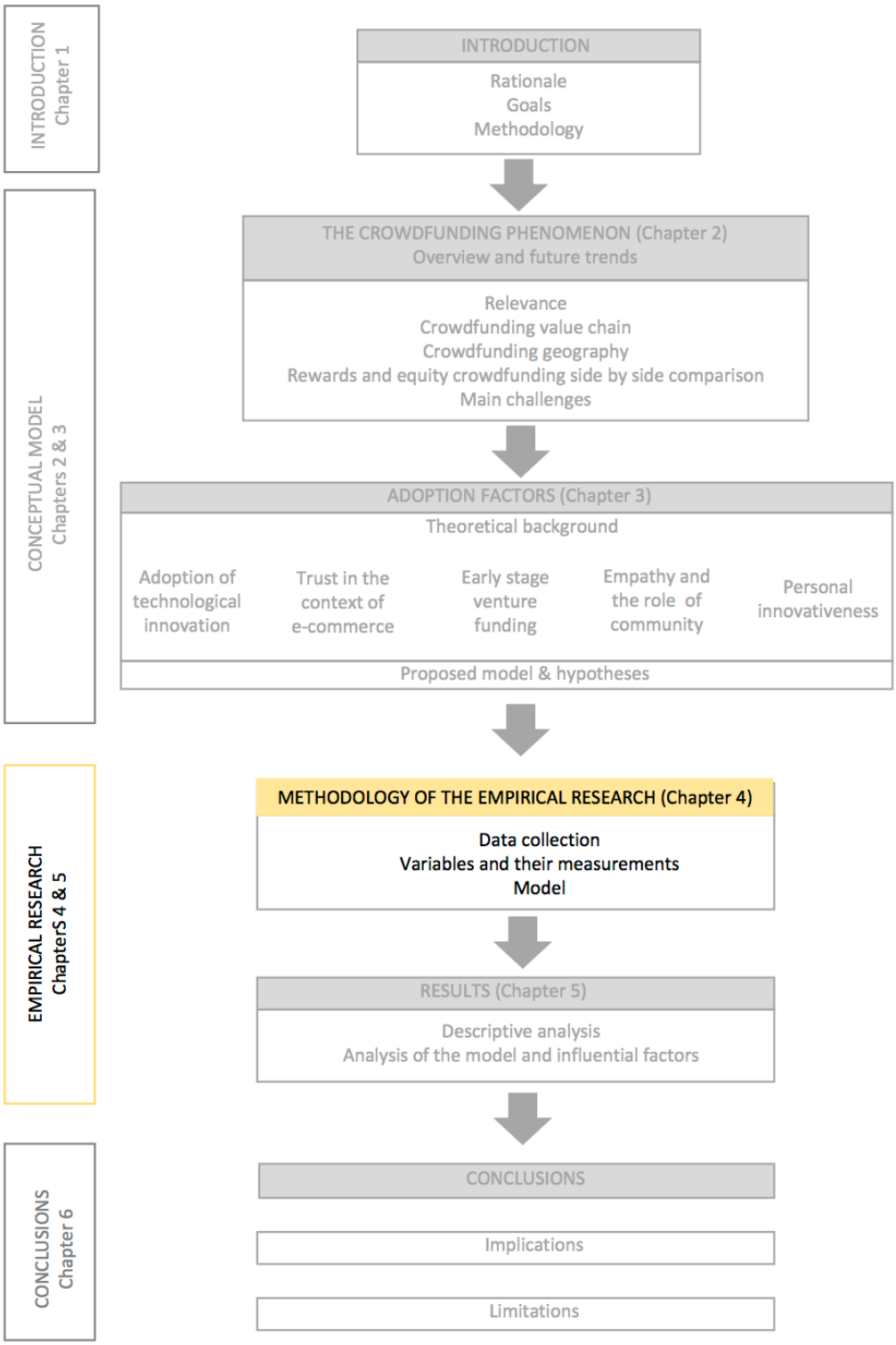
goodwill available to her/him from the structure and content of his/her social relations" (Adler & Kwon, 2002). The affinity with promoter component in ECF campaigns is materialized in communications provided in private and public networks that are one of the main drivers of funding in this type of projects (Lukkarinen, 2016). Furthermore, indirect communications from creators to potential funders are more effective than direct ones (Zheng et al., 2016).

Figure 47 Is a comprehensive representation of the Proposed model including first level constructs (also called antecedent), second level constructs and Hypotheses

Figure 47: Proposed model and Hypotheses



Source: Author


INTRODUCTION Chapter 1
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EMPIRICAL RESEARCH Chapters 4 & 5
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Descriptive analysis
Analysis of the model and influential factors
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Implications
Limitations

4. METHODOLOGY OF THE EMPIRICAL RESEARCH

This chapter presents a model that attempts to explain the intention of contributing to ECF by RCF funders. The variables considered are the most relevant identified in the process described in chapter 3 and the way they were measured is presented. The data collection process conducted was based on a questionnaire built from a) the contributions of a triangular group composed by experts in the legal and academic fields as well as the CEO of a RCF platform and b) in depth interviews with creators, funders and CF platforms.

Analyzes carried out with the proposed model have been suggested in accordance with the objectives identified in this thesis, and based on the methodology used in the empirical studies on the adoption of innovations by individuals. The following analyses are proposed:

- Descriptive analysis of the state of the matter in relation with the adoption of ECF by individuals in general and specifically by RCF contributors.
- Analysis of the explanation degree of each factor included in the intention to adopt ECF by RCF funders model as defined in the present study. Conclusion on the validity of the hypotheses formulated around each of the variables.
- Evaluation of the explanatory level of the proposed model for the intention to adopt ECF by RCF funders based on the results of Structural Equation Model (SEM) analysis.
- Analysis of the behavior of the dependent variable in relation to the control variables.

4.1. DATA COLLECTION

Given the lack of secondary data sources related to the subject matter of this thesis and in order to collect data and information to conduct the analyses presented above, a questionnaire was drawn up which took as reference the following sources:

A. Triangular group of experts. The purpose of this dynamic was to provide a holistic outlook to the CF phenomenon that served as a framework for placing all subsequent pieces of the research. With that aim, the triangular group methodology was selected as the most suitable for capturing the unique personalities of each of the three group components as well as the specific perspectives of their expertise: business, legal and academic (Conde, 2008). The dynamic took place in April 2016 and was moderated by the author. Insights obtained were incoporated to the guidelines for subsequent in depth interviews.

Table 9: Triangular group control table

Area of Expertise	Activity	institution	Position	Name
Business practice	Strategic management of Reward CF platform Lanzanos	Loogic	Managing Partner	Javier Martín
Legal	Provide advice to CF platforms in their setup and ongoing business	R de C Advisors	Managing Partner	Maria Gracia Rubio
Academia	Conduct research about CF	Complutense University	Professor and Researcher	Javier Ramos

Source: Author

B. In depth interviews. Representatives of the three main stakeholder groups involved in the CF activity were interviewed: creators, platforms, and funders from both RCF and ECF. The use of semi structured interviews provided the researcher with a first-hand testimony about the facts and the feelings around the CF experience (Vallés, 2014). The aim of the interviews was to validate the measurement of the analyzed variables, the relevance of the structure and contents of the questionnaire and their usefulness for the analysis to be carried out. Interviews were held in person, by phone and via Skype in Madrid, Barcelona and South Orange (New Jersey) between April 12th and May 10th, 2016.

- Platforms: Lánzanos (RCF) and Crowdcube (ECF)
- Creators: Mensaje Post-itivo (movie), Garnacha Vella Centenaria (wine) and La Inégalité (music)
- Funders: Family (La Inégalité), supplier (Garnacha Vella Centenaria), fan (Vortex) and financial portfolio investor (Crowdcube)

Table 10: In depth interviews control table

Stakeholder Group	Project/Platform	Name	Position/Interest
Platform – ECF	Crowdcube	Pepe Borell	CEO
Platform – RCF	Lánzanos	Marta Pizarro	Chief Marketing Officer
Creator	Mensaje Post-itivo (Movie) Lánzanos	Alfredo Alegría	Movie Director
Creator	Garnacha Vella Centenaria (Wine) Lánzanos	Javier García	Winery owner
Creator	La inégalité (Músic) Lánzanos	Almudena Vega	Musician
Funder	Various projects (Investment portfolio) Crowdcube	José Luis Mínguez	Investor in ECF project portfolio
Funder	Vortex Bladeless (Wind energy) Indiegogo	Patty Brown-Christenson	Fan of clean energies
Funder	La inégalité (Músic) Lánzanos	Maleni Vega	Creator´s relative
Funder	Garnacha Vella Centenaria (Wine) Lánzanos	José Codesido	Creator´s business contact

Source: Author

The insights provided served as a confirmation of the variables identified in the literature research. In addition,

C. Secondary sources. Existing surveys to CF funders about their motivations for contributing to the campaigns from
    - RCF - Two Much market research for Lánzanos (Two Much, 2013)
    - ECF - European Commission. Crowdfunding from an investor perspective (2015)

D. Information about the structure and content of the surveys included in some of the documents analyzed in this thesis, on bibliographical references related to the factors of the proposed model.

E. Publications about how to conduct online surveys: Frippiat & Marquis (2010)

The survey was distributed to a sample of funders from the RCF platform Lánzanos. Following the approval of the Spanish law on ECF platforms in April 2015, at the time of this research, Lánzanos was preparing the launch of its ECF platform named Seed Quick. The present study aimed to provide Lánzanos management team with an estimate of the existing potential in their RCF funder base for adopting ECF thus contribute in seizing the potential of SeedQuick.

With 380.000 registered members, €7 M raised and 2,500 campaigns successfully funded, Lánzanos is the largest RCF platform in Spain. Founded in 2010, Lánzanos promotes projects from a wide variety of activities: i.e. artistic, technology, videogames, science and community.

Before sending the final version, the questionnaire was tested by submitting it to a simple of 1.000 funders. As a result, some questions were reformulated for better understanding, multiple choices were further specified according to the responses received and visual presentation was improved.

The mail including a link to the online survey was sent by Lánzanos to a total of 150.000 members form its funders' database in two waves, the first one on June 24th to 70.000 individuals who had contributed in the previous 12 months, and the second one on July 6th to 80.000 funders who furnished funds in the 12 months prior to the first issue.

The questionnaire is a combination of questions about the experience of the respondent with CF, the level of agreement with certain statements related to the intention to adopt ECF, degree of personal innovativeness and the profile of the interviewee. In some cases, the informant is required to evaluate the degree of agreement with statements related to intention of adopting ECF by using a 7 level Likert type scale. This scale is commonly utilized when assessing the intention to adopt a new technology (TAM) or online as a new channel to invest (Balasubramanian et al, 2003).

The final questionnaire shows the items grouped by the first level constructs and is available as appendix of this document.

A total of 328 valid questionnaires were received, that means an answer rate of 0.22%. The final sample size, once incomplete questionnaires have been discarded is n=241 respondents, which is the sample used in the model estimation.

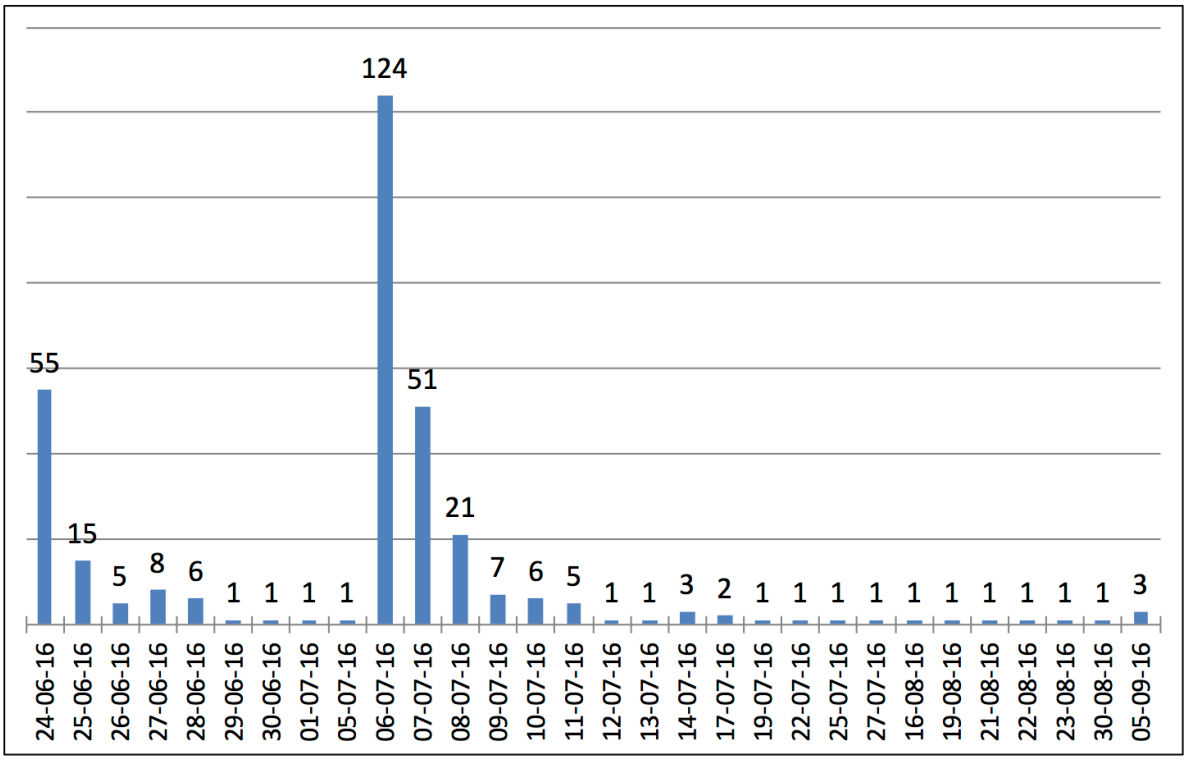
The survey is divided in sections:

- Section 1: Awareness and experience with CF in general. The goal of this block is to gather information about the degree of familiarity with CF. Regarding the experience of contributing to campaigns, detailed information is gathered about involvement in CF projects: frequency, amounts, names of platforms and satisfaction.
- Section 2: ECF Introduction. ECF is presented as a new option for funding projects. Information about awareness and prior experience with ECF is gathered with similar detail level as in section 1.

- Section 3: Relevant aspects in the decision to adopt ECF. Focuses on the evaluation of the degree of agreement that the respondent exhibits with statements related to the determinants of ECF adoption according to the model proposed in this thesis. A Likert scale with 7 response levels is utilized. The factors were grouped around the following topics in order to facilitate the response by the interviewee: perceived usefulness, perceived ease of use, trust, empathy and personal innovativeness.
- Section 4: Profile of the respondent. Collects information about the profile of the person surveyed regarding age, sex, employment status, level of studies, intensity in the use of remote channels for banking transactions and financial status.

Figure 48 Is a representation of the daily responses to the survey received. The lower level of responses obtained in the first wave compared to the second one is due to its coincidence in time with general elections.

Figure 48: Daily responses to the survey



Source: Author

4.2. DESCRIPTION OF THE VARIABLES AND THEIR MEASUREMENTS

The structure and content of the questionnaire prepared for the data collection takes into account each one of the variables of the proposed model and their possible measurements. Information from the consulted literature on adoption of innovation served as a basis for defining the measurements of the most advisable variables to be used.

The dependent variable for the model defined in this thesis is the intention to adopt ECF by RCF funders. Consistent with TAM Venkatesh & Davis (2000), intention to adopt was operationalized by asking the respondent three different questions:

- Assuming I had the opportunity, I intend to invest in ECF
- Given that I had the opportunity, I predict that I will invest in ECF
- I plan to invest in ECF in the next 6 months

The measurements utilized to collect information about the independent variables have been identified by consulting questionnaires used in the research analyzed and are summarized in Table 11.

Table 11: Constructs in the questionnaire and their measurement

Construct	Questionnaire antecedent and item	Question Source
USEFULNESS	Profitability • Investing in equity crowdfunding I would obtain better financial results than investing in other products • If I invest in ECF in the future, I would make the right decisions • ECF would make me more efficient in the management of my investments	• Bhattacherjee (2000) • Bhattacherjee (2000) • Bhattacherjee (2000)
	Social Influence • People who influence my behavior think that I should invest in ECF • People who are important to me think that I should invest in ECF • Investing in ECF is a status symbol in my entourage • I would like to belong to the group of people that invest in ECF	• Venkatesh & Davis (2000) • Venkatesh & Davis (2000) • Venkatesh & Davis (2000) • Konana & Balasubramanian (2005)
	Investment Strategy • I have separated the amounts that I use for different financial goals (current expenses, savings, investments...) • I would invest in an ECF project whose financial projections were attractive	• Konana & Balasubramanian (2005) • Ahlers et al. (2015)
EASE OF USE	Knowledge • I consider I would have enough financial knowledge to invest in equity crowdfunding • I believe that understanding the process required to invest in equity crowdfunding would be easy for me • When investing in equity crowdfunding I think I would understand the necessary legal aspects • I think that my interaction with the equity crowdfunding platform would be clear and easy to understand	• Venkatesh & Bala (2008) • Venkatesh & Bala (2008) • Venkatesh & Bala (2008) • Venkatesh & Bala (2008)
	Operational competence The equity crowdfunding platform would: • Conduct the transaction in a timely manner • Conduct the transaction in an error free manner • Provide me with any information that I may need, after having conducted the transaction	• Balasubramanian et al. (2003) • Balasubramanian et al. (2003) • Balasubramanian et al. (2003)
	Convenience I would invest in equity crowdfunding • If I could do it anywhere: from home, from the office... • If I could conduct it by using any device: computer, smartphone, tablet... • If I could do it at any time • If in order to learn how to do it I would not have to perform a great mental effort • If conducting the necessary operations were easy	• Konana & Balasubramanian (2005) • Konana & Balasubramanian (2005) • Konana & Balasubramanian (2005) • Venkatesh & Bala (2008) • Venkatesh & Bala (2008)
	Playfulness • I would invest in equity crowdfunding if I had fun doing it • I would invest in equity crowdfunding if I felt creative when doing it	• Venkatesh & Bala (2008) • Venkatesh & Bala (2008)
TRUST	Protection • The equity crowdfunding platform would treat me fairly regarding the charge of fees • If I invest in equity crowdfunding, I feel assured that I be will adequately protected by the system (legal, financial ...) • If I invest in equity crowdfunding I will have the necessary information and tools to control the performance of my investment	• Balasubramanian et al. (2003) • Balasubramanian et al. (2003) • Balasubramanian et al. (2003)
	Quality • I would contribute to equity crowdfunding projects where I would value the management team • I would contribute to equity crowdfunding projects where I would value the individuals who support them • I would participate in equity crowdfunding projects that were innovative	• Ahlers et al. (2015) • Ahlers et al. (2015) • Ahlers et al. (2015)
	Resources • I would have enough euros to invest in equity crowdfunding • I would have the necessary technology to invest in equity crowdfunding	• Venkatesh & Bala (2008) • Venkatesh & Bala (2008)
EMPATHY	Affinity with project • I would support projects that I would like to see come true • I would support projects whose causes were connected with my personal beliefs	• Gerber & Hui (2013) • Gerber & Hui (2013)
	Affinity with creator • I would support projects in which I had a personal relationship with the promoters: Family, friends, or acquaintances... • I would support projects in which I had a professional relationship with the promoters: Coworkers, clients, vendors ...	• Agrawal et al. (2014) • Agrawal et al. (2014)
PERSONAL INNOVATIVENESS	• • If I heard about a new information technology, I would look for ways to experiment with it • Among my peers, I am usually the first to try out new information technologies, • In general, I am hesitant to try out new information technologies. • I like to experiment with new information technologies.	• Agarwal & Prassad (1998) • Agarwal & Prassad (1998) • Agarwal & Prassad (1998) • Agarwal & Prassad (1998)

Source: Author

Measures used in each of the following variables are analyzed below:

4.2.1. Perceived usefulness and its antecedents

According to Davis et al (1989), this second level construct intends to measure the degree to which the adoption of a technology will enhance an individual´s job performance. In the case of ECF adoption by RCF funders three antecedents or first level constructs are posited to influence perceived usefulness:

- **Profitability.** From the TAM perspective of perceived usefulness, obtaining superior financial results is a main contribution of ECF to enhancing the performance of the funder (Davis, 1989). The extrinsic motivation attributed to ECF as the hard side of CF is represented in profitability as an antecedent. Due to the similarities with e-commerce previously discussed, for the purpose of this research, ECF can be considered a financial e-commerce activity in the form of an online investment in a project via the CF platform as an intermediary (Konana & Balasubramanian, 2005). Subsequently, measurements from Bhattacherjee (2000) in the online brokerage arena are utilized.

  With the intent of analyzing this variable and based on the above considerations, the following affirmations were formulated in the survey, and an evaluation was required to the interviewee by using a Likert scale about the degree of importance attributed to each of the following issues:
  1. Adopt ECF to result in a greater return than investing in other products
  2. Adopting ECF as a correct decision
  3. Potential of ECF to contribute to an improvement in the management of personal investments

- **Social influence.** This construct intends to capture the dual consideration of social from a TAM´s perspective that entails not only opinions from others about

the innovation to be adopted but also the potential influence that this decision may have in enhancing self-image (Venkatesh & Bala, 2008).

The first component is connected to the herd behavior present in CF as an activity deeply rooted in social networks that has been studied by the academic literature discussed in the previous chapter (Sun, 2013; Kim & Viswanatha, 2013; Fischer et al., 2011; Kuppuswamy & Bayus, 2013; Ward & Ramachandran, 2010; Xu et al., 2014).

The second component captures the aspirational aspect that potential backers might have of accessing to the superior class of innovators in the sense previously discussed of lead users (Von Hippel, 1986), early adopters (Rogers, 2003) and personal innovativeness (Agarwal & Prasad, 1998).

The questions utilized for measuring the social influence variable are obtained from the subjective norm and image constructs of TAM (Venkatesh & Davis, 2000) as well as the superior class connected to online investors as technology experts and innovators in the financial services arena (Konana & Balasubramanian, 2005).

The questionnaire aims to collect an assessment of the degree of importance given to four issues about the funder´s decision:

1. Opinion of persons who the funder considers as influential
2. Opinion of persons who the funder considers as important
3. Potential enhancement of his/her social status by adopting ECF
4. ECF as a facilitating mechanism for the funder to enter an exclusive club

- **Investment strategy**. The dimension of potential funders as Do-It-Yourself investors is captured in this construct. Lack of an advisor that helps in making investment decisions points to the assumption that backers are individuals who organize their personal finances in a rational manner, using mental accounting (Konana & Balasubramanian, 2005). Being rational also implies that backers

make their investment decisions based on positive outcomes as the result of analyzing the business plan of the project advertised in the ECF campaign (Ahlers et al., 2015).

In our survey we request an assessment of the degree of importance that the respondent gives to two issues related to him/her as a decision maker in investment matters:

1. The management of personal portfolio in a clear and organized manner
2. Influence of the financial projections of the project in search of funds advertised in the ECF platform

4.2.2. Perceived ease of use and its antecedents

In the model presented, perceived ease of use is a second level construct that represents “the degree to which a person believes that using a particular system would be free of effort” as posited by TAM (Davis, 1989), since a key goal of CF platforms is to serve as intermediaries between creators and funders by providing a seamless experience. Four constructs are antecedents of ease of use in our model and questions about each of them are included in the questionnaire.

- **Knowledge.** Captures the self-efficacy concept in the sense of "the degree to which an individual believes that he or she has the ability to perform a specific task/job using the computer" (Compeau & Higgins, 1995a, 1995b), that is one of the anchors in TAM3 (Venkatesh & Bala, 2008).

  In the context of this research and from an objective perspective, ECF requires superior notions not only about technology but also financial and legal matters (Bush & Artz, 1999). The interviewees in our survey had contributed previously to RCF projects and this experience might influence their self-perception of ability to conduct ECF transactions in the sense that, after having spent time collecting information about the project, they might overestimate their knowledge thus being

overconfident and subsequently increasing the risk of their decision (Barber & Odean, 2001; Fischoff et al., 1977).

In addition to the above, the expectation of a smooth contact with the ECF platform throughout the transaction is explored as a basic component of the ease of use perception (Venkatesh & Bala, 2008).

Subsequently, four aspects are addressed related to funders´ self-assessment about their ECF knowledge, in the present questionnaire:

1. Possession of knowledge about financial related matters
2. Ease of understanding the process of investing in ECF
3. Possession of knowledge about legal related matters
4. Expectation of a seamless interaction with the ECF platform

- **Operational competence.** The questionnaire tries to assess the perception of effectiveness that backers have about the platform, since that is the reason why individuals move from face to face to online channels and a primary goal for ECF platforms (Konana & Balasubramanian, 2005; Balasubramaninan et al., 2003*).*

  The questionnaire incorporates operational competence in the sense of ability of the ECF platform to conduct the transaction in a timely and error free manner while providing punctual information about the results (Konana et al., 2000), as captured in the reliability item of the service quality SERVQUAL model (Parasuraman et al.,1988) and the service transaction convenience construct of Berry et al. (2002).

  Three aspects are considered in assessing operational competence of the ECF platform, as operationalized for online investment by Balasubramanian et al., (2003):

  1. Ability to conduct the transaction in a timely manner
  2. Capability to conduct the transaction in an error-free manner
  3. Capacity to provide the necessary information after the transaction

- **Convenience.** The questionnaire intends to capture a comprehensive measurement of this construct by incorporating the online finance perspective to the free of effort perspective posited by TAM (Davis, 1989).

  The online finance aspect of convenience attempts to assess the ability to conduct transactions at the time, from the place and using the desired devices, that is a key driver for adopting online channels (Konana & Balasubramanian, 2005).

  Subsequently, the questionnaire inquires the interviewee about five aspects of convenience as the ability to conduct ECF transactions in a seamless and free of choice manner when related to: place, electronic device from which to operate, time in the day, mental effort required and easiness in conducting operations

- **Playfulness.** Measurements utilized in order to obtain information about this variable aim at capturing the meaning of the perceived enjoyment construct in TAM, that could be adapted to the ECF context as “the extent to which the activity of adopting ECF is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use”, that is an intrinsic motivation captured by Venkatesh (2000, p. 351).

  In addition, the playfulness construct in the proposed model captures part of the significance of TAM’s computer playfulness in the sense of feeling creative while using the system (Webster & Martoccio, 1992).

  Subsequently, two questions are included in the questionnaire from TAM3 (Venkatesh & Bala, 2008) regarding how funders expect to feel while contributing to an ECF campaign: enjoyed and creative.

4.2.3 Trust and its antecedents.

The relevance of trust as a driver of ecommerce adoption has been extensively analyzed in the previous chapter, where CF has been considered as a type of ecommerce where the product is the project to be funded online. Trust has been acknowledged as a major deterrent for adopting all types of CF, not only RCF (Gerber & Hui, 2013) but also ECF (Deutsche Bank, 2014).

Potential backers considering wether to contribute to an ECF project face an individual decision to be taken with the information available to them. Although the likely transparency of internet that allows immediate contact with funders, agency problems and information assymetry issues exists. Therefore, funders must identify the risks involved in the decision and mitigate them.

In the proposed model, necessary trust for adopting ECF is based on three antecedents: institutional safeguards, confidence in the venture and assurance of having the necessary means to conduct the transaction.

- **Protection.** The protection construct attempts to measure the degree of confidence that the potential funder has about being able to conduct ECF transactions safely. Trust about the existence of institutional safeguards is required to ensure that small investors are treated fairly compared to professional ones and that assurance will be provided if needed.

  This is a particularly relevant issue in ECF for several reasons discussed before: the potential risk of losing all the capital invested, the absence of an advisor, the online environment where ECF happens and the lack of track record exhibited by CF platforms. These aspects are captured in the institution based category of McKnight et al.´s model (2002), and operationalized in their application to the online brokerage by Balasubramanian et al. (2003).

The survey asks three questions related to the level of protection felt by the interviewee:

1. Against the platform and its potential attempt of being unfair in the charge of fees
2. About the existence of an institutional framework that protects the ECF activity and defends the backer if necessary
3. Against the platform, in order to ensure the provision of necessary information to funders when required

- **Quality.** The questionnaire tries to measure until what extent ECF funders use signals commonly utilized by professional investors in the evaluation of startup ventures. The answer to this question is intended to provide clarity to the central question of this research about the extent to which ECF funders act moved by extrinsic reasons. These aspects are included in the literature on new venture funding and in particular applied to ECF by Ahlers et al. (2015).

  Regarding the double trust required by ECF funders, this construct deals with the specific trust needed in the potential success of the project in search of funds.

  The proposed questionnaire attempts to measure three signals of venture quality commonly utilized by professional investors:

  - Management quality or human capital, in the sense of perceived qualification of the management team for conducting the venture in a successful manner.
  - Supporter quality or social capital, meaning existence of individuals who bring credibility to the project by supporting it
  - Product/service quality or intellectual capital, that is, the potential value generation that the project by means of innovation in the form of intellectual property

- **Resources.** Since ECF is conducted in independent manner by funders, they need to be confident about having access to the necessary means to do so. This variable is collected in TAM´s facilitating conditions (Venkatesh et al., 2003).

  Regarding resources, financial assets are a basic requirement for ECF, even more so than in the case of RCF, since minimum amounts required in ECF are generally higher and also because the expected recovery period is longer, around three years.

  As a result, the questionnaire attempts at measuring the importance that potential funders assign to having access to the means necessary to conduct an ECF transaction, that are funds and technology.

4.2.4 Empathy and its antecedents.

This construct incorporates the community aspect of CF in the sense of social capital (Fukuyama, 2001) that, in the case of ECF, facilitates the provision of funds through an alternative source to the traditional financial system and in exchange of a share in the venture. This construct attempts at capturing the social innovation that CF brings to the financial services industry in the sense of funders involved in the projects to which they provide not only their financial assets but also the intellectual ones.

This concept is connected to the sharing economy in the sense of linking individuals with common interests by means of the technology and eliminating barriers such as geographical or gender ones (Botsman, 2010; Ordanini et al, 2011).

Empathy involves the intrinsic motivation of potential backers (Deci & Ryan, 1985) that is posited as the main reason behind contributing to RCF campaigns (NESTA 2012; Fraunhofer, 2011; Gerber & Hui, 2013). In the context of this research, the intention is to measure until which extent intrinsic motivations that moved Lánzanos RCF funders to back projects are strong enough to also move them to accompany

the projects in the riskier and operationally more complicated ECF phase. In addition, the questions try to capture how much the appearance of monetary rewards affect funder´s intentions.

- **Affinity with the project**. The questionnaire attempts to capture the intrinsic desire of funders to contribute to projects as a means to allow them express a personal interest and even the epistemic value of being involved in a project that provides them with learning (Harms, 2007). The concept is connected with Ordanini et al.'s vision of the new and active role of customers who are not only consumers but also co-producers, value co-creators and now funders (2011). In this same sense Agrawal et al (2014) refer to the dimension of CF that enables funders to access to products they like while aligning their aspirations with hose of the venture. Gerber & Hui (2013) refer to the value provided to backers by being involved in the venture as being so fulfilling as to not to ask for the promised reward.

  In the questionnaire, the affinity with the project is asked by using two questions that inquire the interviewee about if the motive of his/her contribution is:

  1. To enable the project to come true
  2. Because the project is in line with his/her values

- **Affinity with creator.** This antecedent of empathy is also acknowledged a main reason for contributing to RCF campaigns (Nesta, 2012) and the goal in this questionnaire is to measure until which extent it is also present in ECF as some authors seem to indicate (Lukkarinen et al., 2016; Cholakova et al., 2016).

  The affinity with creator construct tries to apprehend the degree to which funders are willing to feel altruistic by contributing to projects lead by individuals to whom they are socially connected (Harms, 2007; Gerber & Hui, 2013). This social liaison of backers with creators makes the first appreciate the effort implied and therefore CF emerges as a means to channel this contribution.

The interviewees are asked two questions that try to identify until what extent the potential motive for providing funds would be the nature of his/her connection with the creator: either personal or professional.

4.2.5 Personal innovativeness

The incorporation of this construct attempts at measuring until which extent the propensity to be innovative as a psychographic characteristic of potential adopters influences their intention to conduct ECF.

The questionnaire asks four questions based on Agarwal& Prassad (1998) and utilizes a 7 level Likert scale:

1. If I heard about a new information technology, I would look for ways to experiment with it
2. Among my peers, I am usually the first to try out new information technologies,
3. In general, I am hesitant to try out new information technologies.
4. I like to experiment with new information technologies.

4.2.6 Control variables

With the goal of obtaining relevant information about the profile of the funder, the following control variables were identified and included in the questionnaire:

- Age
- Sex
- Employment situation
- Education level
- Intensity in the use of remote channels for banking relationships
- Economic situation

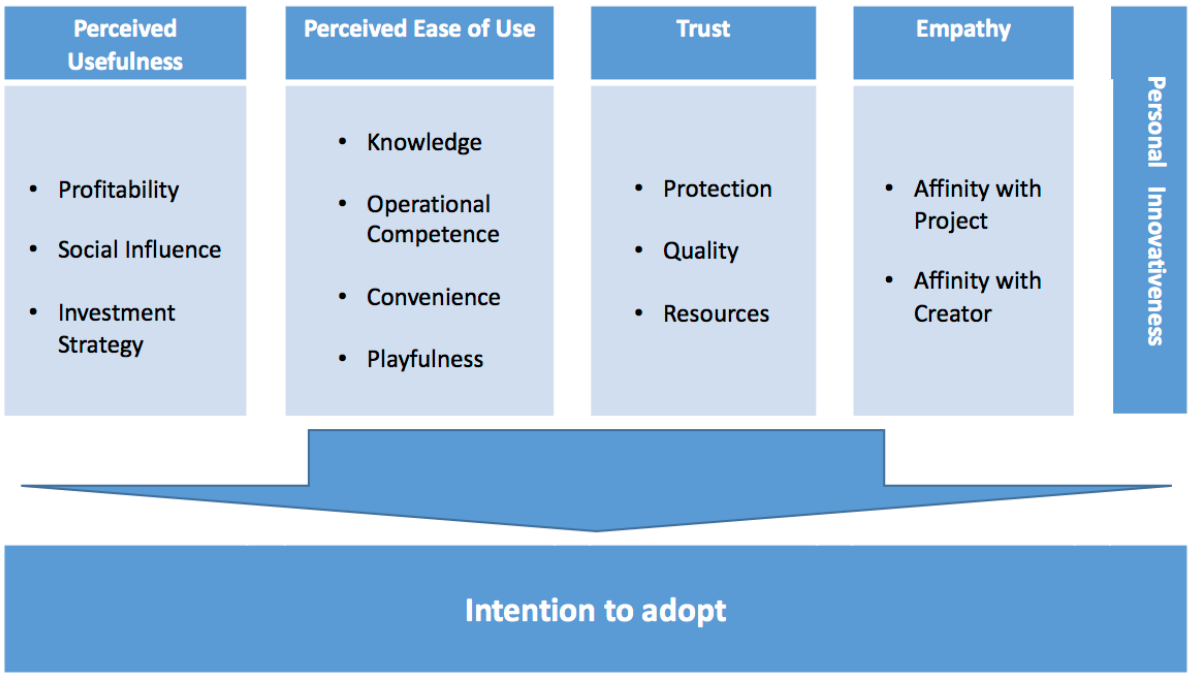
4.3 MODEL

Based on the identification of the most significant variables carried out in the previous chapter, a model is proposed to analyze and explain the decision to adopt ECF (See figure 49).

As mentioned above, the model can be defined as a holistic and integrated one, based on relevant factors of the TAM model for technology adoption, and including additional relevant factors related to trust in the context of e-commerce, early stage venture funding, empathy and personal innovativeness.

The model is composed of twelve first order constructs or antecedents that are grouped around five first level constructs, named: perceived usefulness, perceived ease of use, trust, empathy and personal innovativeness.

Figure 49: Model for adoption of equity crowdfunding by rewards crowdfunding backers

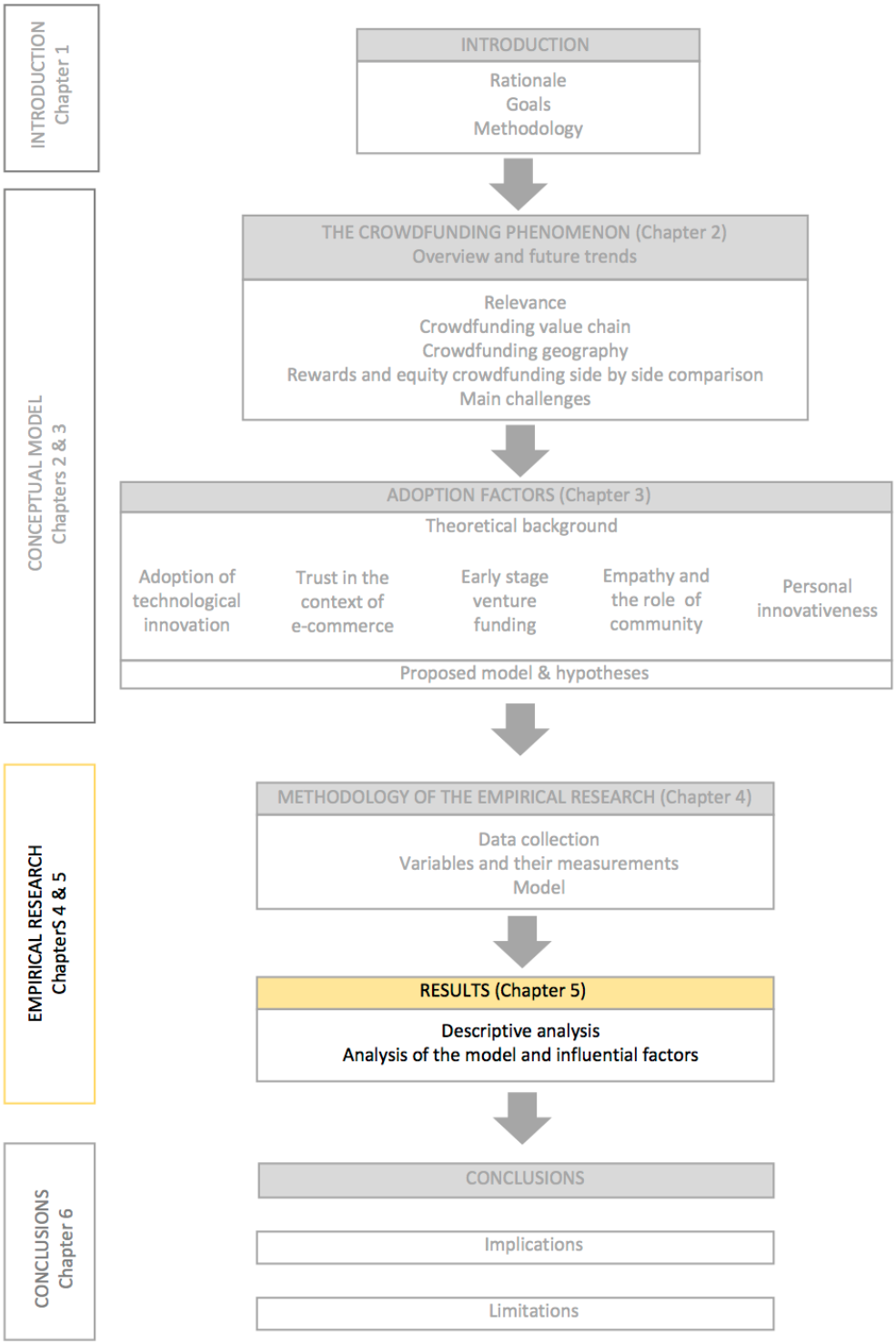


Source: Author

As almost all the relationships proposed by the theoretical model, and almost all the hypothesis to be tested involves latent variables, not directly observed, Structural Equations Modeling (SEM) have been used to estimate and test those hypotheses. The software used was Stata © v 13.0. Model evaluation was conducted in two steps: Evaluation of the measurement model and evaluation of the structural model (Anderson & Gerbing, 1988).

The measurement model involves building of second order constructs (Perceived Ease of Use, Perceived Usefulness, Trust and Empathy) from many first order constructs (here called also “antecedents”). In each case, unidimensionality, reliability and validity of the constructs has been assessed, with the commonly employed measures (Cronbach’s alpha, AVE, among others).

The structural model stablishes relationships between the second order constructs, and allows testing the research hypothesis. In order to achieve convergence in structural model parameters estimation, in some cases second order constructs have been replaced by their corresponding computed factor scores.


INTRODUCTION Chapter 1
CONCEPTUAL MODEL Chapters 2 & 3
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INTRODUCTION
Rationale
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THE CROWDFUNDING PHENOMENON (Chapter 2)
Overview and future trends
Relevance
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Crowdfunding geography
Rewards and equity crowdfunding side by side comparison
Main challenges
ADOPTION FACTORS (Chapter 3)
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Trust in the context of e-commerce
Early stage venture funding
Empathy and the role of community
Personal innovativeness
Proposed model & hypotheses
METHODOLOGY OF THE EMPIRICAL RESEARCH (Chapter 4)
Data collection
Variables and their measurements
Model
RESULTS (Chapter 5)
Descriptive analysis
Analysis of the model and influential factors
CONCLUSIONS
Implications
Limitations

5. RESULTS

This chapter presents the analyzes conducted according to the steps previously explained.

Frist, a descriptive analysis of the state of the matter in relation with the adoption of ECF by individuals in general and specifically by RCF contributors.

Second, an analysis of the explanation degree of each factor included in the intention to adopt ECF by RCF funders model as defined in the present study. Conclusion on the validity of the hypotheses formulated around each of the variables and evaluation of the explanatory level of the proposed model for the intention to adopt ECF by RCF funders based on the results of Structural Equation Model (SEM) analysis.

Third, analysis of the behavior of the dependent variable in relation to the control variables.

5.1. DESCRIPTIVE ANALYSIS

This section provides descriptive statistics about three components: the demographics of interviewees, their previous experience with CF in general and ECF in particular and finally, the variables of the proposed model.

5.1.1. Demographics

Table 12 presents the main sociodemographic features of the estimation sample (n=241). Survey respondents were mostly male (79.7%) and highly educated, since 68.9% were graduates. Ages were concentrated in the 30s and 40s (65.5% of the total) in a percentage well above the Spanish population, where that age bracket accounts for 40% of the community (INE, 2011) and consistent with the profile of ecommerce users.

In addition, respondents exhibited high intensity in their use of remote channels for banking purposes as more than two thirds of them declared to conduct 75% or more of their activity outside the branch. Regarding their economic situation, more than half of the polled declared to make ends meet comfortably, while the rest claimed various degrees of difficulty.

Table 12: Descriptive statistics - Demographics

Variable	Response	Percent respondents %
Age	<30	15.8
	31-39	34.4
	40-49	31.1
	50-59	14.1
	>60	4.6

	Total	100
Sex	Male	79.7
	Female	20.3
	Total	100
Employment situation	Student	3.3
	Unemployed	9.5
	Self-employed	27.0
	Employed	57.7
	Retired	2.5
	Total	100
Education level	Student	4.1
	Graduate/post-graduate	68.9
	Undergraduate	27.0
	Total	100
Remote channels intensity	All activity in the branch	4.6
	25% or less remote banking	8.3
	25% - 75%	15.3
	75% - 99%	53.1
	All activity in remote channels	18.7
	Total	100
Economic situation (Facility / Difficulty to make ends meet)	Comfortably	57.2
	Tightly	33.2
	Sometimes I don´t make it	7.5
	I don´t usually make it	2.1
	Total	100

5.1.2. Previous crowdfunding experience

Funders who had previously invested in CF declared that they had participated in between 1 and 3 projects, with more than half of them engaging in only 1. The total amount dedicated to CF projects was € 314 on average, which is 10% or less of their savings in most cases. This might indicate a) the incipient situation of CF as a novel investment mode and/or b) its perception as a moderate to high risk investment where the amount allocated is limited.

Table 13: Descriptive statistics - Previous crowdfunding experience in general

Variable	Response	Percent respondents %
# CF Projects supported in last 5 years	0	0
	1	58.8
	2	20.0
	3	21.2
	Total	100
Amount dedicated to CF campaigns €[1]	Mean	314.8
	Median	120
	Sd	767.5
Percentage of savings dedicated to CF %	0%	29.5
	1-5%	47.3
	6-10%	12.0
	11-20%	7.0
	21-50%	2.1
	>50%	2.1
	Total	100

[1] 3 Extreme responses eliminated: 50.000€, 20.000€ and 8.000€

The first reason stated for investing in CF was an interest in the product / service / cause by 66.7% of the respondents. In comparison, supporting the Project of a friend came in well below (21.7%), next was the connection with an acquaintance (6.6%) and finally, family (4.6%). These results may point towards two potential aspects, the first being the desire to contribute to CF as a means for belonging to a community of individuals who share interests (intrinsic motive) and the second one as the interest to obtain a return in the form of the product or service offered (extrinsic motive).

When assessing the experience supporting CF projects, the answers were very spread although most of them were positive, since 73% of the interviewees rated it between neutral and very good by choosing 4 to 6 in the 1-7 Likert scale. Of the 17.9% dissatisfied individuals who rated between 1 and 3, the main reason was a poor experience with the project, cited by 86.1% of them, which may be related to the uncertainty that accompanies projects at their initial stage when CF funds are pledged. The fact that dissatisfaction with platforms is only mentioned by 9.3% seems to point to a positive perception of the operation of these intermediaries by their users that might be connected with trust.

Table 14: Descriptive statistics - Previous crowdfunding experience in general. Reasons and experience

Variable	**Response**	**Percent respondents %**
Reason to support CF (could be more than 1)	Family	4.6
	Friend	21.7
	Acquaintance	6.6
	Interested in product/service/cause	66.7
	Other	0.4
	Total	100
Experience supporting CF projects (1 to 7 scale)	1 = Very bad	6.2
	2 = Quite Bad	4.2

	3 = Bad	7.5
	4 = Neutral	10.4
	5 = Good	34.0
	6 = Very good	28.6
	7 = Great	9.1
	Total	100
Reasons for experience supporting CF rated 1 to 3	Bad experience with project	86.1
	Bad experience with platform	9.3
	Other	4.6
	Total	100

So far, questions referred to CF in general, which is usually associated with rewards crowdfunding, RCF. From this moment onwards the questions referred specifically to equity crowdfunding, ECF.

Only half of the respondents who had invested in RCF had heard about ECF (45.4%) and of these, only half had ever contributed to a campaign (53.6%), illustrating the poor knowledge of this model that corresponds to its early stage. As for the number of campaigns in which they had invested, answers were fairly distributed indicating variety in the degree of expertise with the product. Experience with ECF was rated positively – 81.5% of them rating 4 to 6 in the 1-7 Likert scale - which scores well above RCF at 73%.

Table 15: Descriptive statistics - Previous experience with equity crowdfunding

Variable	**Response**	**Percent respondents %**
Heard about ECF before?	Yes	45.4
	No	54.6
	Total	100

Invested through an ECF platform before	Yes	53.6
	No	46.4
	Total	100
ECF projects invested #	1	7.6
	2	3.4
	3	2.1
	4	2.1
	>5	3.4
	Non responded	81.4
	Total	100
Experience supporting ECF projects (1 to 7 scale)	1 = Very bad	4.6
	2 = Quite Bad	1.6
	3 = Bad	7.7
	4 = Neutral	12.3
	5 = Good	40.0
	6 = Very good	29.2
	7 = Great	4.6
	Total	100
Reasons for experience supporting CF rated 1 to 3	Did not feel involved	0
	Bad experience with project	2.4
	Bad experience with platform	0
	Other	0
	Non disclosed	97.6
	Total	100

5.1.3. Model variables

Results of descriptive statistics are presented by grouping them according to the second order constructs that constitute our model: perceived usefulness, perceived ease of use, trust, empathy and personal innovativeness. In the case of intention, statistics are presented separately.

A 7-point Likert scale was used for measurement of responses where 1= completely disagree and 7= completely agree.

The intention to invest in ECF by respondents was asked using 3 items. Their means range between 3.92 and 4.8 implying an intention towards the positive side of the scale but lower results when the action is required in a specific 6-month timeframe. All items measured exhibited a 4 mode which might indicate uncertainty about ECF as a new model, since it had not been tested yet by some of the respondents. Dispersion of values in the three variables utilized was similar. The means, modes, and standard deviations of responses related to intention are summarized in Table 16.

Table 16: Descriptive statistics for intention (n=241)

Variable	Mean	Mode	Sd
I will invest in ECF if I have the chance	4.8	4	14
Given that I will have the chance, I have the intention to invest in ECF	4.51	4	1,5
I intend to invest in ECF in the next 6 months	3.92	4	1,6

Perceived usefulness was measured using three first order constructs, of which profitability and investment strategy were valued on the positive side of the scale while social influence tended to the negative one. Item scores from the three antecedents vary between 3.33 and 5.05, the lowest corresponding to ISOC1 that refers to social influence while the highest INV2 speaks about the extent to which attractive financial projections engage potential funders in an ECF Project. This might point to a prevalence towards the rational-extrinsic perspective in the funders´ decision.

Dispersion of response values is similar for all variables except for INV1 which may be explained by the different degree in which individuals organize their financial assets by grouping them according to their different purposes. In any case, even though INV1's mode is 7, responses to this item are evenly distributed. The means, modes, and standard deviations of responses related to antecedents of perceived usefulness are summarized in Table 17.

Table 17: Descriptive statistics for antecedents of perceived usefulness (n=241)

Construct/Variable	**Mean**	**Mode**	**Sd**
Profitability			
RENT1	4.66	4	1.4
RENT2	4.61	5	1.3
RENT3	4.42	4	1.3
Social Influence			
ISOC1	3.33	4	1.4
ISOC2	3.29	4	1.3
ISOC3	3.9	4	1.4
ISOC4	4.38	4	1.6
Investment strategy			
INV1	4.3	7	2.0
INV2	5.05	5	1.4

Perceived ease of use was measured using four constructs and their variables. Averages of PEOU items appear to be superior in general to those of PU, with values ranging between 4.24 and 5.45, modes being 5 and 6, and data showing low dispersion in general.

The convenience construct stands out from the rest for its higher mean scores, all of which are above 5. These results could be explained by the importance that potential funders assign to the flexibility of participating in the ECF campaign at the moment, in the place, using the device and at the time desired. Simplicity and low effort are also included in this construct. The 6 mode for most items and similar standard deviations support this result.

Despite the greater complexity that ECF implies with respect to RCF, respondents seem confident about themselves being intellectually capable to participate (Knowledge means between 4.24 and 4.71) and about the platform being able to conduct transactions in a competent manner (averages between 4.95 and 5.12). All items in these two constructs show a 5 mode and similar standard deviations.

The hedonism component of the ECF activity is perceived positively, with averages 4.81 and 4.89 for its items. The means, modes, and standard deviations of responses related to antecedents of perceived ease of use are summarized in Table 18.

Table 18: Descriptive statistics for antecedents of perceived ease of use (n=241)

Construct/variable	**Mean**	**Mode**	**Sd**
Knowledge			
CON1	4.24	5	1.6
CON2	4.64	5	1.5

CON3	4.59	5	1.5
CON4	4.71	5	1.4
Operational competency			
COOP1	4.95	5	1.3
COOP2	4.94	5	1.3
COOP3	5.12	5	1.4
Convenience			
CONV1	5.32	5	1.4
CONV2	5.25	6	1.5
CONV3	5.41	6[a]	1.4
CONV4	5.16	6	1.4
CONV5	5.45	6	1.3
Hedonism			
DISF1	4.81	5	1.6
DISF2	4.89	4	1.5

a – More than one mode. Lowest value displayed

Trust was measured using three first order constructs and their variables, whose means range between 4.17 and 5.5, leaning towards the positive side of the scale. Highest averages correspond to the quality construct, implying that the assessment of managers and project backers are among the most influential inputs that configure trust (averages 5.5 and 5.33 respectively), together with the project´s degree of innovation (mean 5.33). All items in the quality construct show a mode value of 6 and a low dispersion.

Regarding the protection construct, the lowest average corresponds to expectations about the legal and financial systems to guard funders. This item presents the lowest average among all trust components (4.17), probably as a consequence of the decline in trust from investors towards institutions originated in the last financial crisis.

In the resources chapter, perception about owning the necessary funds is valued with a 4.56 mean and a 4 mode, which may reflect a perception of some sort of economic uncertainty in potential funders´ minds. Respondents seem to rely more on having access to the necessary technological resources by rating this item with a 5.11 mean and 5 mode. The means, modes, and standard deviations of responses related to antecedents of trust are summarized in Table 19.

Table 19: Descriptive statistics for antecedents of trust (n=241)

Construct/variable	**Mean**	**Mode**	**Sd**
Protection			
PROT1	4.83	5	1.4
PROT2	4.17	4	1.6
PROT3	4.49	5	1.5
Quality			
CAL1	5.5	6	1.3
CAL2	5.33	6	1.3
CAL3	5.33	6	1.3
Resources			
REC1	4.56	4	1.6
REC2	5.11	5	1.4

Empathy as a construct was included in our model with the aim to provide the community component that underlies the CF phenomenon. It was measured using two first level constructs. Results of empathy variables are high, with averages between 4.69 and 5.71, reflecting the positive valuation that potential funders assign to the intrinsic motivations that imply to participate in an ECF campaign.

The funder´s affinity with the project presents the highest averages: 5.71 for AFPROY2 ("I would support projects whose causes were connected with my

personal beliefs") and 5.51 for AFPROY1 ("I would support projects that I would like to see come true"). Mode is 6 for both items and the dispersion is low.

Affinity with promoters also presents averages in the positive side of the scale, particularly if they are family, friends or acquaintances (4.95), above co-workers, clients and suppliers (4.69). Mode is 4 in the responses to both variables, and the standard deviation 1,5. The means, modes, and standard deviations of responses related to antecedents of empathy are summarized in Table 20.

Table 20: Descriptive statistics for antecedents of empathy (n=241)

Construct/variable	**Mean**	**Mode**	**Sd**
Affinity with the project			
AFPROY1	5.51	6	1.4
AFPROY2	5.71	6	1.3
Affinity with the promoter			
AFPROM1	4.95	4	1.5
AFPROM2	4.69	4	1.5

Personal innovativeness was incorporated to our model with the aim to analyze the influence in funders´ intention to adoption ECF of this construct that had proved high impact in technological environments. Questions were formulated according to Agarwal & Prasad (1998).

Means resulted around 4 (= indifference) which seems to indicate that the respondents do not possess a particularly innovative personality. Modes are 4 and 5 and standard deviations 1.6 and 1.8, which seems to reflect a certain degree of variety in the level of innovativeness declared by respondents.

The statement of PI3 was inverted and therefore its results are shown after being reversed. The means, modes, and standard deviations of responses related to innovative personality antecedents are summarized in Table 21.

Table 21: Descriptive statistics for antecedents of innovative personality (n=241)

Construct/variable	**Mean**	**Mode**	**Sd**
Personal innovativeness			
PI1	4.04	5	1.6
PI2	3.79	4	1.8
PI3 [2]	4.52	4	1.6
PI4	4.99	5	1.6

[2] Scores are reversed

5. 2. ANALYSIS OF THE MODEL AND FACTORS THAT INFLUENCE ECF ADOPTION

As almost all the relationships proposed by the theoretical model, and almost all the hypothesis to be tested involve latent variables, not directly observed, Structural Equations Modeling (SEM) have been used to estimate and test those hypotheses. The software used was Stata © v 13.0. Model evaluation was conducted in two steps: Evaluation of the measurement model and evaluation of the structural model (Anderson, Gerbing, 1988).

The measurement model involves building of second order constructs (Perceived Ease of Use, Perceived Usefulness, Trust and Empathy) from many first order constructs (here called also “antecedents”). In each case, unidimensionality, reliability and validity of the constructs has been assessed, with the commonly employed measures (Cronbach’s alpha, AVE, among others).

The structural model stablishes relationships between the second order constructs, and allows testing the research hypothesis. In order to achieve convergence in structural model parameters estimation, in some cases second order constructs have been replaced by their corresponding computed factor scores.

Model estimate. The overall model fit statistics are within or close to the generally accepted thresholds for good fit: chi2 = 33.262 (p = 0.066), chi2 /d.f. = 1.513, root mean squared error of approximation (RMSEA) = 0.046, with a probability of 0.541 of being lesser than 0.05, comparative fit index (CFI) = 0.986, Tucker – Lewis index (TLI) = 0.975. The coefficient of determination is 0.656. These results suggest that, the model fits well and corresponds to a close representation of the population of interest.

5.2.1. Evaluation of the measurement model

Internal consistency of the measures used in the model is analyzed. To do this, the unidimensionality, reliability and validity of the proposed scales must be guaranteed.

Unidimensionality. Unidimensionality of the proposed measurement scales implies that all items that make up the scale represent the same theoretical concept. The indicators are the reflection of a single construct and would not reproduce another construct. Unidimensionality is analyzed through global fit indices of the measurement model. Unidimensionality was measured by calculating indicators of first level construct formed by four items or more. Residual analysis suggested no major threats to unidimensionality, given the non-significant number of absolute values above 2.58 (Jöreskorg, Sörbom, 2001) and absence of modification indices above 5.0 (Anderson, Gerbing, 1988). Furthermore, items loaded strongly and significantly on unique factors, lending thereby support to the unidimensionality of each construct.

Reliability. Reliability of the scales measures the consistency of the indicators that form the construct, that is to say, that all indicators are measuring the same concept. It is interpreted as the proportion of the construct variance that is attributable to the real score of each variable. It takes into account internal consistency (same underlying concept) and stability (constant results for the same measurement). Reliability is tested using Cronbach's alpha and composite reliability (Werts et al., 1974), ranging from 0 (absence of homogeneity) to 1 (maximum homogeneity). The difference between both indicators is that Cronbach's alpha presupposes a priori that each indicator in a construct contributes in the same way whereas composite reliability uses item loads as per the causal model. The scales are considered to be mostly reliable, since the majority of the Cronbach's alpha values and all the composite reliability ones were higher than 0,7 and 0,8 respectively. The only two exceptions found were Cronbach's alpha for the empathy construct (Alpha= 0,671) and for the investment strategy variable (Alpha= 0,641), although their values were close to 0,7.

Validity. Validity of the scales appraises their ability to measure what they must measure and only that. The following aspects are included: a) content validity (the extent to which a measure represents a construct), b) convergent validity (the measure correlates strongly and positively with other measures of the same concept), and c) discriminating validity (checks if a concept is different or represents other variables). The validity of the proposed model is also confirmed. Convergent validity is assessed through AVE that measures the percentage of variance due to the indicators and whose results are required to be close to or greater than 0,5 (Bagozzi & Yi, 1998). Discriminant validity is confirmed in using the correlation matrix, where factor loadings are greater than the cross factor loadings and correlations between different items that compose in the model that are below 0,8.

Internal consistency of the proposed model is confirmed as per table 22:

Table 22: Evaluation of the measurement model results

	Reliability		Validity
	Cronbach Alpha	Composite Reliability	AVE
Perceived Usefulness	0,705	0,730	0,481
Profitability	0,845	0,849	0,654
Social Influence	0,854	0,857	0,617
Investment Strategy	0,641	0,749	0,508
Perceived Ease of Use	0,834	0,838	0,566
Knowledge	0,889	0,909	0,715
Operational Competence	0,895	0,896	0,741
Convenience	0,944	0,940	0,759
Enjoy	0,802	0,889	0,728

Trust	0,797	0,818	0,608
Protection	0,825	0,772	0,540
Project Quality	0,871	0,879	0,710
Resources	0,766	0,867	0,685
Empathy	0,671	0,777	0,549
Affinity with Project	0,811	0,895	0,740
Affinity with Creator	0,833	0,915	0,781
Innovative Personality	0,743	0,798	0,548

As a result of the above assessments undertaken about unidimensionality, reliability and convergent and discriminant validity, the measurement model was found to be acceptable overall.

5.2.2. Evaluation of the structural model

The following step after the measurement model has been validated is to evaluate the structural model. Results for our proposed model are highly positive for absolute and incremental adjustment measures but lower on parsimony indexes.

Absolute fit. Assesses how well an a priori model reproduces the sample data and imply covariance matrices and do not use an alternative model as a base for comparison. Results for our model imply that model fit is good (RMSEA=0,035; SRMR=0,019).

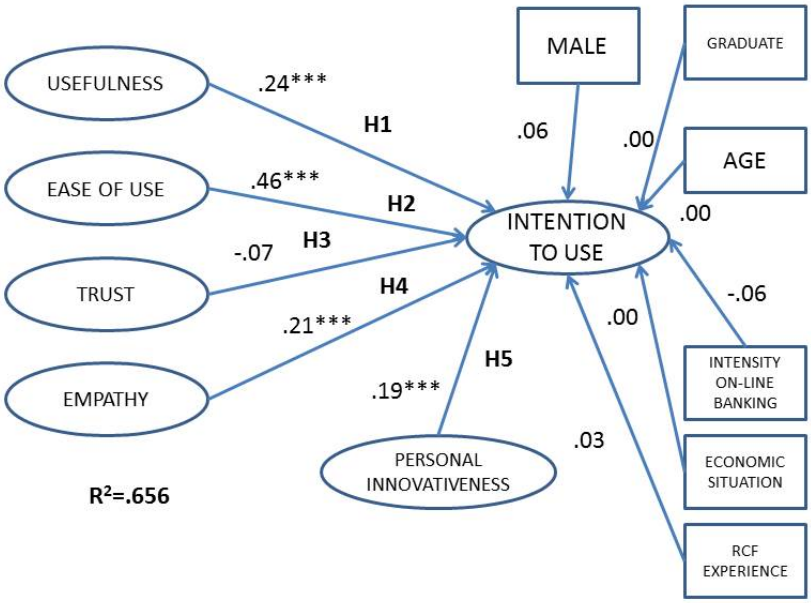
Incremental fit. Measures the proportionate improvement in fit by comparing a target model with a more restricted, nested baseline model and present highly positive for our model (CFI=0,992 and TLI=0,984).

Parsimony fit. Are relative fit indices that are adjustments to most of the previous ones. Adjustments penalize models that are less parsimonious, so that simpler

theoretical processes are favored over more complex ones. The degree of parsimony of our model seems to be low since Chi1/df= 34,848/27= 1,29.
Figure 50 illustrates how perceived ease of use appears as the model's most relevant construct. Perceived usefulness impacts intention in a significative manner with an intensity similar to empathy and personal innovativeness.

Turning now to the signs of the parameters representing the hypotheses incorporated in the model, the results of the test of the structural model indicate that all signs of the associations between second order constructs in the model under analysis were in accordance with hypothesized relationships. One exception to this behavior is identified: H3, which stablishes a direct relationship between level of trust and intention to use, which is not empirically supported.

Figure 50: Model 1 Path Diagram



Source: Author

Furthermore, none of sociodemographic features (sex, education, age, economic situation) have a significant effect on the dependent variable. The same results are obtained for the observed variables related to previous crowdfunding experience or intensity of use of online banking.

R squared was utilized to assess the predictive accuracy of our model. The value obtained of R2 = 65.6% indicates an acceptable explanatory power of the intention to fund ECF by the constructs PEOU, PU, trust, empathy and personal innovativeness.

Table 23 presents the estimations of the proposed model, with results of H1, H2, H4 and H5 being supported and H3 non supported.

Table 23: Model 1 estimates

Intention to Use

Parameter	Estimate	Std. error	t- ratio	p-value		Hypoyhesis	Result
Perceived Usefulness->Intention to Use	.244	.055	4.38	0.000	***	H1	Supported
Perceived Ease of Use->Intention to Use	.462	.060	7.62	0.000	***	H2	Supported
Trust->Intention to Use	-.073	.070	-1.05	0.294		H3	Non supported
Empathy->Intention to Use	.213	.055	3.84	0.000	***	H4	Supported
Personal innovativeness->Intention to Use	.192	.047	4.03	0.000	***	H5	Supported
Experience->Intention to Use	.032	.048	0.66	0.506			
Age->Intention to Use	.004	.043	0.11	0.912			
Male->Intention to Use	.058	.044	1.33	0.184			
Graduate->Intention to Use	.001	.044	0.04	0.972			
On line banking intensity->Intention to Use	-.066	.044	-1.49	0.137			
Economic situation->Intention to Use	.005	.045	0.13	0.899			

***,**,* indicate significance at 1%,5% and 10% level

Estimate values have been standardized for comparison purposes

Source: Author

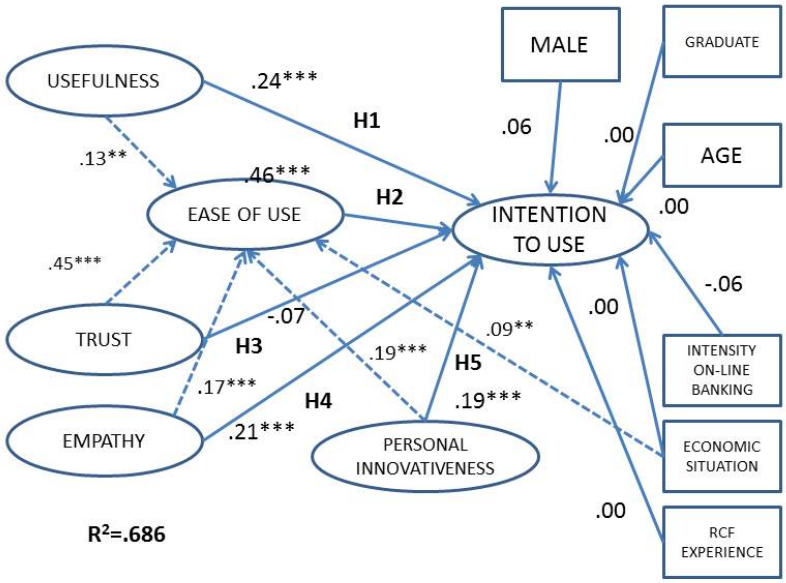
Alternative model

Literature establishes that perceived ease of use has a double potential impact on intention to use: directly and mediated by perceived usefulness (King, He, 2006; Venkatesh, Bala, 2008)

Therefore, a variant of model 1 has been estimated, incorporating this mediating relationship. However, this path is not significant and, moreover, overall fit measures worsen.

A new approach has been tried, that is to consider that the mediating path is through perceived ease of use and not via perceived usefulness. According to model improvements suggested by the modification indices statistics, Model 1 has been slightly modified, adding mediating effects via PEU for some of the constructs. Therefore, Model 2 includes additional paths from perceived usefulness, trust, empathy, personal innovativeness and economic situation to PEU that acts as a mediating variable. The intuition to do this can be summarized as follows: the more useful an innovation is perceived (ECF in this case), the more empathy with the project and the more trust the individual has on the platform, it is supposed that the more ease of use is perceived. The reason might be that the individual is then more motivated to adopt the innovation and therefore, the perception of potential barriers and difficulties in the use of the innovation become relaxed.

Figure 51 - Model 2 Path Diagram



Source: Author

Model 2 presents better goodness of fit measures that Model 1. So, chi2 = 33.647 (p = 0.116), chi2 /d.f. = 1.345, root mean squared error of approximation (RMSEA) = 0.038, with a probability of 0.713 of being lesser than 0.05, comparative fit index (CFI) = 0.991, Tucker – Lewis index (TLI) = 0.983. The coefficient of determination is 0.686. These results suggest that, the model fits well and corresponds to a close representation of the population of interest.

Table 24 shows model 2 estimates whereas Figure 51 presents the path diagram of this alternative model. It can be seen that all the mediating paths proposed are highly significant and positive, as expected. The strongest relationship with EOU is trust. Therefore, although there is no evidence that more trust level directly influences the intention to use ECF, however this effect can be operating in an indirect way, via increasing the perceived ease of use.

Table 24 - Model 2 estimates

Perceived Ease of Use

Parameter	Estimate	Std. error	t- ratio	p-value	
Perceived Utility->PEU	.135	.053	2.54	0.011	**
Trust->PEU	.453	.058	7.69	0.000	***
Personal innovativeness->PEU	.189	.044	4.26	0.000	***
Empathy->PEU	.169	.051	3.25	0.001	***
Economic situation->PEU	.090	.042	2.12	0.034	**
Constant	-.434	.208	-2.08	0.037	**

Intention to Use

Parameter	Estimate	Std. error	t- ratio	p-value		Hypoyhesis	Result
Perceived Usefulness->Intention to Use	.244	.055	4.37	0.000	***	H1	Supported
Perceived Ease of Use->Intention to Use	.462	.061	7.51	0.000	***	H2	Supported
Trust->Intention to Use	-.073	.070	-1.05	0.294		H3	Indirectly supported
Empathy->Intention to Use	.212	.055	3.83	0.000	***	H4	Supported
Personal innovativeness->Intention to Use	.192	.047	4.02	0.000	***	H5	Supported
Experience->Intention to Use	.032	.048	0.66	0.506			
Age->Intention to Use	.004	.043	0.11	0.912			
Male->Intention to Use	.058	.044	1.33	0.184			
Graduate->Intention to Use	.001	.044	0.04	0.972			
On line banking intensity->Intention to Use	-.066	.044	-1.49	0.137			
Economic situation->Intention to Use	.005	.045	0.13	0.899			

***,**,* indicate significance at 1%,5% and 10% level

Estimate values have been standardized for comparison purposes

Source: Author

Table 25 presents the aggregate of both direct and indirect effects exerted by both exogenous and endogenous latent variables. It can be seen that, overall, the perceived ease of use is the main driver of intention to use, followed by the perceived usefulness. There is some evidence that trust influence that intention, although in an indirect way, via increasing the perceived ease of use.

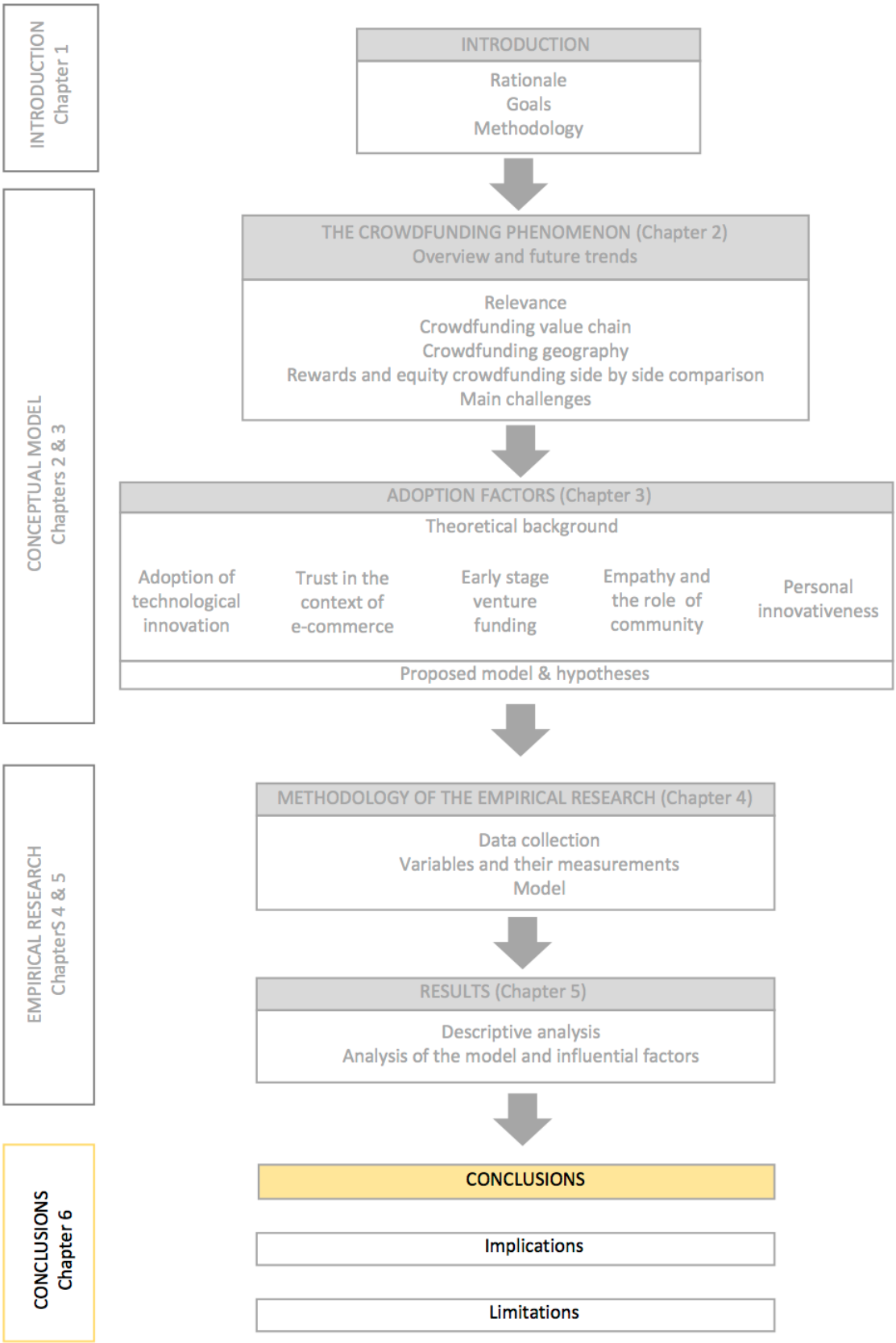
Table 25 - Decomposition of structural effects

Effect on Intention to Use	Direct	Indirect	Total	significance
Perceived Ease of Use	.462		.462	***
Perceived Usefulness	.244	.062	.306	***
Trust	-.073	.209	.136	*
Empathy	.213	.078	.291	***
Personal innovativeness	.192	.087	.279	***
Experience	.032		.032	
Age	.005		.005	
Male	.059		.059	
Graduate	.001		.001	
On line banking intensity	-.066		-.066	
Economic situation	.005	.042	.047	

***,**,* indicate significance at 1%,5% and 10% level

Estimate values have been standardized for comparison purposes

Source: Author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6. CONCLUSIONS AND RESEARCH IMPLICATIONS

This chapter details the main conclusions and implications of the research conducted, as well as a reference to its limitations.

In a first section, the state of knowledge and usage of both RCF and ECF is analyzed, including indications regarding the profile of funders. Then, the main findings about factors that influence adoption of ECF by RCF backers are discussed.

The following section details implications of the conclusions for the different stakeholders involved in the ECF process: CF platforms, project creators, legislators and funders. The author includes proposals for actions aimed at promoting the adoption of ECF in a manner that minimizes risk while continues its role of supporting new ventures. Academic implications are also mentioned.

In the last section, limitations of this work are acknowledged.

6.1. CONCLUSIONES OF THIS THESIS

In this section the author presents conclusions obtained from results of the research conducted in this doctoral thesis and presented in the previous chapter.

The evolution of ECF´s progress in the past months has been taken into account in the interpretation of results, together with research and news recently being published about this innovative model.

6.1.1. State of knowledge and usage

From the analyzed perspective of RCF contributors, this model appears as particularly attractive for middle-aged individuals (millennials), with a high level of education in general and in particular financially literate. In this context, technological companies with strong focus on customer experience such as Amazon or Google appear to be in advantage when compared with traditional suppliers of financial services.

The use of RCF is incipient since at the time of this research its funders have mostly contributed to only one campaign to which they have dedicated an amount not exceeding 10% of their savings. Their reason for utilizing RCF to back projects has been mainly an interest in the product / service / cause promoted. A positive perception seems to exists about CF platforms since backers declare as quite good their RCF experience and, in those cases where it is not so, attribute their dissatisfaction to issues with the project and hardly never with these intermediaries.

With respect to ECF, the situation is even more embryonic, since among the RCF funders interviewed, who are supposed to possess an above average knowledge of the subject, only 24% of them had adopted ECF at the time of this research. Likewise, the results seem to point to a possible confusion in the mind of funders,

about ECF and its difference with RCF, which is aggravated by their lack of practical ECF experience.

As a consequence of the above, informing consumers about what CF is, and clearly explaining the differences between RCF and ECF emerge as a priority to ensure, on the one hand, that CF as a service is understood and, on the other, that the risks assumed and their implications are acknowledged.

6.1.2. Factors that influence adoption of ECF by RCF funders

The research conducted highlighted the degree in which each of the variables studied influence ECF adoption. Results indicate that the main motives for adopting ECF are different from the social/empathy related intrinsic ones that influenced the adoption of RCF. In addition, they are also different form the extrinsic ones that guide decisions made by professional investors such as venture capitalists or business angels. Surprisingly, ease of use emerges as the key motive to adopt ECF by not only influencing intention directly but also indirectly by mediating other variables.

These results have implications specific for the main groups of stakeholders that are described in the next section.

A summary of the results of the main factors from the proposed model and their influence in ECF adoption follows.

Perceived ease of use emerges as the most influential factor for RCF funders to adopt ECF

This result is in line with other academic papers in the field of e-commerce (Pavlou, 2003; Gefen et al., 2003), online brokerage (Bhattacherjee, 2000), and in the adoption of self-service technologies (Meuter et al., 2000).

In the context of ECF proposed by the model, the antecedent that most determines its perception of ease of use for potential backers is the operational competence of the CF platform. This indicates that the existence of a technological intermediary that ensures ECF operations carried out in a timely and error-free manner is considered as a priority for funders since they do not need to worry constantly about supervising every step of the process.

Another requirement of ECF's ease of use is to be able to operate with minimal effort, by providing simple concepts and procedures together with flexibility in terms of time, devices and location from which to conduct transactions. These findings are in line with research about adoption of online brokerage (Konana & Balasubramanian, 2005), as well as self-services (Bateson, 1985; Verma and Iqbal, 2007). In addition, the playfulness component appears as very relevant, in the sense of providing individuals with an experience perceived as fun and that makes them feel creative while contributing to ECF projects.

The relevance of ease of use is increased by acting a mediating variable between all others that form the model - PU, Trust, empathy and personal innovativeness – and ECF adoption. These relationships can be interpreted as follows: the more financial value ECF is expected to provide, the easier it seems to operate; the more trust in the model, the lower control is needed to exert; the more empathy between funder and project and/or creator, the more motivation to overcome obstacles; and, finally, the more innovative personality, the lower perception of issues involved. All these factors converge in their perception of potential barriers and difficulties in the use of ECF to become relaxed and thus foster its adoption.

PU influences PEOU in an opposite direction to the TAM model

As indicated above, the more profitable ECF is considered, the easier to use it is perceived. This relationship between PU and PEOU, in spite of being in our model in the opposite direction to that of the TAM model, is in line with the existing research that points to weakening in the influence of PEOU in PU the higher previous experience and the lower the complexity of the technology adopted

(Sun&Zhang,2006). This rational may be applicable to our research since funders interviewed are experienced in CF and therefore it seems reasonable to assume that they consider the technology associated with this model as simple, thus being more inclined to see it as easy to use.

Perceived usefulness influences intention to adopt ECF in a direct manner

This relationship that also exists in the TAM model, in the ECF context indicates the consideration of ECF as an option that increases the profitability with respect to other investment alternatives, while doing so in an efficient manner, representing an extrinsic motivational component.

Another aspects that influence the perception of ECF´s usefulness are on one hand its consideration as another component of individual´s investment portfolio that is the result of sensible financial planning, and on the other hand, the fact that contributing to ECF projects is perceived as an enhancement of the funder´s social status by his/her peers.

Empathy influences Intention to adopt ECF in a direct manner

This relationship highlights the influence of non-financial motives in the adoption of ECF, in line with the community component of RCF. It can be interpreted as backers searching to participate in ECF to contribute to the realization of projects in which they are interested due to either having an affinity with the activity, because they help them to learn about something, or as a means to become part of a community of people with common interests. In the extreme case in which this was the only factor in the decision, funders would be willing to contribute with their money and even their effort without expecting something as an immediate exchange; an example might be contributing to a project that consisted of creating a crowdsourcing platform in which the funder could later provide his/her services: that would provide liaison with other community members in the same field.

Surprisingly, the influence of empathy in the decision to adopt ECF is equal in strength with that of PU, which is a purely extrinsic motive. This presents ECF as a

model that allows small funders to channel simultaneously their motivation of financial return with that of being involved in the community that creates the project, which implies a profound innovation with respect to the traditional model where it was only available to professional investors.

Personal innovativeness influences Intention to adopt ECF

As expected, an innovative personality promotes change by influencing the intention to move from RCF to ECF, as posited by some authors (Arts et al., 2011; Limayen et al., 2000).

Although they generally do not consider themselves technologically pioneers in their responses to the survey, RCF funders interviewed could most likely be innovative: their sociodemographic characteristics present them as young individuals with higher education and above average use of non-traditional banking channels. This profile emerged from the beginning in individuals interviewed for the qualitative phase of this research: persons accustomed to an intense use of technology and strong financial culture.

In addition, innovative personality exerts great influence in the context of funding ECF, since the available time to decide about a project is short and the election involves taking a risk. Having an innovative emerges as a requirement to adopt a nascent service like ECF and those willing to fund it may be considered as pioneers at the time of this research.

Trust does not influence intention to adopt in a direct manner

A possible additional interpretation might be that trust is taken for granted among RCF users. This confidence in CF platforms is in line with the answers given to the survey in which the few dissatisfactions with campaigns reported, almost never were attributed to platforms while generally to projects.

Nevertheless, the influence of trust on intention is exercised indirectly through PEOU. This result is in line with e-commerce research findings from Chircu et al. (2003) and Pavlou (2003): these authors explain that the existence of trust implies funders not

needing not be constantly checking every step of the process for control the CF platform, and therefore being able to operate in a relaxed manner, thus minimizing effort and perceiving the experience as seamless.

Other sociodemographic characteristics do not influence intention in a significant manner

Surprisingly, previous experience does not influence intention to adopt ECF; the possible explanation could be that all interviewees had experience with RCF, with very little difference among each other in regards of number of campaigns funded.

The lack of influence of other variables that a priori would seem relevant such as the intensity in the use of online banking and the economic status may also be due to the group surveyed being quite homogeneous and therefore without great differences between them in any of these variables.

6.2. IMPLICATIONS OF THE CONCLUSIONS

Various implications are derived for different stakeholders from the results of this research, whether they are practitioners or academics.

1. **Implications for CF platforms.** First, an opportunity among funders with prior RCF experience to adopt ECF exists. Regarding aspects to emphasize in order to attract backers, this research points out that the focus should be in conveying a seamless customer experience by means of the following:
   - Simple and transparent processes that ensure immediate access to all the necessary information. To this end, direct interaction with creator and platform to clarify doubts, as well as clear and easy to fill documentation should be provided
   - Technology that ensures flexibility to operate from any location, device or time: i.e. access from a wide range of devices and mobility
   - An enjoyable experience that includes elements such as gamification, as well as a friendly image
   - Campaign offers that differentiate clearly those targeted to accredited investors, in order to avoid undesired consequences

2. **Implications for project creators.** Attention must be paid in conveying a simplicity of use message to potential backers in the communication campaign: from social networks to the promotional video to be included in the platform. Exhibiting for example images of persons from all ages using their mobiles to fund ECF campaigns. The message conveyed should be more focused in ease of use than on trust.

3. **Implications for legislators.** Despite the funders' priority for ease of use aspects, the lack of attention to the risk component in ECF projects implies that legislators should be actively involved in ensuring protection of funders, with an emphasis on education and awareness

- Paying special attention to ensure that backers understand the risk that they assuming by providing funds to ECF through i.e. a traffic light color code classification of campaigns according to a combination the type of CF utilized with specific characteristics of the campaigns
- Assure clear distinction between campaigns that target accredited investors from those available for everyone
- Ensuring individuals´ knowledge of applicable regulations, as well as instances to go to in case of fraud or suspicion
- Enabling the existence of independent firms that assess CF platforms and rank them in their main variables in a similar manner to firms that evaluate VCs such as Early Metrics

4. **Implications for funders**. An overemphasis on ease of use to the detriment of other considerations may facilitate herd behavior, fraud and reoccurrence of unadvisable situations such as those in the past in financial crises.

   To avoid this, it seems essential to educate potential funders on paying attention to signals such as project quality, expected profitability and, above all, to prevent herd behavior when there is no solid basis for decisions.

   In this same line, it seems advisable to involve reference investors who are experts in the project activity to be founded or to invest, in order to contribute signals that contribute to evaluate the quality of the project.

From an academic perspective, this research adds to the existing literature in fields where research is scarce to date:

- The quantitative scope of this research, which is almost non-existent in ECF at the time of this thesis
- The technology perspective utilized, which was also found as lacking in the CF field in the literature review

- This research provides the perspective of capital providers to ECF that is also scarce in the existing literature due to the recentness of this CF model
- Another potential contribution is the consideration of this thesis as an application of TAM to the CF activity that can be added to other activities where TAM has been applied. The relevance of the perceived ease of use (above utility) in the intention to participate in equity CF, together with its mediating role not only on perceived utility but also trust, empathy, personal innovativeness in the adoption of this innovation opens a discussion. The fact that the influence of PEOU on PU follows a path that has the opposite way that of TAM model proposes (in its different versions) is another finding.
- Regarding the model utilized, it is holistic and based on a combination of TAM, Trust, and Empathy, and personal innovativeness, thus providing with a comprehensive approach to the CF phenomenon.

6.3. LIMITATIONS

The model tries to identify variables that influence intention to adopt ECF and therefore, albeit research establishes a strong link with actual behavior, this aspect remains unexplored. Subsequently, it would be interesting to see if the effective migration to the ECF follows the same pattern as the intention, although it will be necessary to wait for the maturity of the platform, when the migration could have taken place.

Interviewees are individuals with previous experience in CF and therefore the relevance of some factors could be influenced by this fact

At the time of the research, ECF is in an embryonic stage and subsequently the model could evolve and the influence of some of its variables might change be different when this model is more mature.

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APPENDIX: SURVEY

Lánzanos Questionnaire

* Required

1. **Are you familiar with crowdfunding?** *
   Mark only one oval.

   - ◯ Yes
   - ◯ No *After the last question in this section, skip to question 59.*

2. **2- Have you contributed with funds to any crowdfunding project (either in Lánzanos or in any other platform) in the last 5 years?** *
   Mark only one oval.

   - ◯ Yes
   - ◯ No *After the last question in this section, skip to question 59.*

3. **3- If your answer to the previous question was no, which are the reasons that made you not support any project?**
   Mark only one oval.

   - ◯ Lack of money/funding
   - ◯ Lack of information
   - ◯ I have not searched for projects
   - ◯ Lack of attractive projects
   - ◯ Other

4. **4- How many projects have you supported during those 5 years?**
   Mark only one oval.

   - ◯ None
   - ◯ 1-2
   - ◯ 3-4
   - ◯ 5+

5. **5- Could you indicate the total amount that you provided during those 5 years? (In Euros)** *

6. **6- What percentage of your savings was that amount?**
Mark only one oval.

- ◯ 0%
- ◯ 1-5%
- ◯ 6-10%
- ◯ 11-20%
- ◯ 21-50%
- ◯ 50%+

7. **7- Which if the following motives made you support the project/projects?**
Check all that apply.

- ☐ Family
- ☐ Friends
- ☐ Aquaintance
- ☐ I am interested in the product/service/cause
- ☐ Other

8. **8- How would you describe your experience supporting crowdfunding projects in general?** *
Mark only one oval.

	1	2	3	4	5	6	7	
Extremely bad	◯	◯	◯	◯	◯	◯	◯	Extremely good

9. **9- If your previous answer was 1, 2, or 3, why is it so?**
Mark only one oval.

- ◯ I did not feel involved
- ◯ I had a bad experience with the platform
- ◯ I had a bad experience with the project
- ◯ Other

Skip to question 10.

Introduction to Equity Crowdfunding

The Lánzanos team is working to incorporate a new way to support projects.

It is called Equity Crowdfunding and it consists on providing you with the opportunity to go even further in the support of projects, by being able to participate in them and getting in exchange a percentage of their sales or their results.

10. **1- Had you heard before about this means to support projects?**
Mark only one oval.

- ◯ Yes
- ◯ No *Skip to question 17.*

11. **1- Have you already used it with any platform?** *
Mark only one oval.

- ◯ No
- ◯ Yes

12. **If your answer to the previous question was yes, which platform did you utilize?**
Check all that apply.

- ☐ Lánzanos
- ☐ Crowdcube
- ☐ Crowd Angel
- ☐ Bolsa Social
- ☐ Seedquick
- ☐ Startupxplore
- ☐ Others

13. **3- If you answered "other", with which ones?**

_____

14. **4- In how many projects?**
Mark only one oval.

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5 or more

15. **5- How would you describe your experience supporting equity crowdfunding projects?**
Mark only one oval.

	1	2	3	4	5	6	7	
Extremely bad	◯	◯	◯	◯	◯	◯	◯	Extremely good

16. **6- If your previous answer was 1, 2, or 3, why is it so?**
Mark only one oval.

- ◯ I did not feel involved
- ◯ I had a bad experience with the platform
- ◯ I had a bad experience with the project
- ◯ I had a bad experience with other investors
- ◯ Other

Part 3. Questions about the model

Imagine now that we propose you to support a project on an equity crowdfunding manner, that is, with the possibility of obtaining a percentage of their sales or their results in exchange of your contribution,

Please, answer to the following statements according to until which extent they would affect your hypothetical decision of using equity crowdfunding. Use a 1 to 7 scale in which:

1 = Totally disagree
2 = Disagree
3 = Somewhat disagree
4 = Indifferent
5 = Somewhat agree
6 = Agree
7 = Totally agree

17. **1- Investing in equity crowdfunding I would obtain better financial results than investing in other products** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

18. **If I invest in ECF in the future, I would make the right decisions** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

19. **3- Equity crowdfunding would make me more efficient in the management of my investments** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

20. **1- People who influence my behavior think that I should invest in equity crowdfunding** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

21. **2- People who are important to me think that I should invest in equity crowdfunding** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

22. **3- Investing in equity crowdfunding is a status symbol in my entourage** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

23. **4- I would like to belong to the group of people that invest in equity crowdfunding** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

24. **1- I have separated the amounts that I use for different financial goals (current expenses, savings, investments...)** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

25. **2- I would invest in an equity crowdfunding project whose financial projections were attractive** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

26. **1- The equity crowdfunding platform would treat me fairly regarding the charge of fees** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

27. **2- If I invest in equity crowdfunding, I feel assured that I be will adequately protected by the system (legal, financial ...)** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

28. **3 - If I invest in equity crowdfunding I will have the necessary information and tools to control the performance of my investment** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

29. **1- I would contribute to equity crowdfunding projects where I would value the management team** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

30. **2- I would contribute to equity crowdfunding projects where I would value the individuals who support them** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

31. **3- I would participate in equity crowdfunding projects that were innovative** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

32. **1- I consider I would have enough financial knowledge to invest in equity crowdfunding** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

33. **2- I believe that understanding the process required to invest in equity crowdfunding would be easy for me** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

34. **3- When investing in equity crowdfunding I think I would understand the necessary legal aspects** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

35. **4- I think that my interaction with the equity crowdfunding platform would be clear and easy to understand** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

36. **1- I would have enough euros to invest in equity crowdfunding** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

37. **2- I would have the necessary technology to invest in equity crowdfunding** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

The equity crowdfunding platform would:

38. **1- Conduct the transaction in a timely manner** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

39. **2- Conduct the transaction in an error-free manner** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

40. **3- Provide me with any information that I may need, after having conducted the transaction** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

I would invest in equity crowdfunding:

41. **1 - If I could do it anywhere: from home, from the office...** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

42. **2- If I could conduct it by using any device: computer, smartphone, tablet...** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

43. **3- If I could do it at any time** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

44. **4- If in order to learn how to do it I would not have to perform a great mental effort** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

45. **5- If conducting the necessary operations were easy** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

46. **1- I would invest in equity crowdfunding if I had fun doing it** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

47. **2- I would invest in equity crowdfunding if I felt creative when doing it** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

48. **1- I would support projects that I would like to see come true** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

49. **2- I would support projects whose causes were connected with my personal beliefs** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

50. **1- I would support projects in which I had a personal relationship with the promoters: Family, friends, or acquaintances...** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

51. **2- I would support projects in which I had a professional relationship with the promoters: Coworkers, clients, vendors ...** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

52. **1- Assuming I had access to equity crowdfunding, I intend to fund campaigns** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

53. **2- Given that I had access to equity crowdfunding, I predict that I would fund campaigns** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

54. **3- I plan to fund equity crowdfunding campaigns in the next six months** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

55. **1- If I heard about a new information technology, I would look for ways to experiment with it** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

56. **2- Among my peers, I am usually the first to try out new information technologies** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

57. **3- in general, I am hesitant to try out new information technologies** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

58. **4- I like to experiment with new information technologies** *
Mark only one oval.

	1	2	3	4	5	6	7	
Totally disagree	◯	◯	◯	◯	◯	◯	◯	Totally agree

59. **Age** *

Mark only one oval.

- ◯ <30
- ◯ 31-39
- ◯ 40-49
- ◯ 50-59
- ◯ 60+

60. **Sex** *

Mark only one oval.

- ◯ Male
- ◯ Female

61. **Employment situation** *

Mark only one oval.

- ◯ Student
- ◯ Unemployed
- ◯ Self-Employed
- ◯ Employed
- ◯ Retired

62. **Education level** *

Mark only one oval.

- ◯ Student
- ◯ Graduate/post-graduate
- ◯ Undergraduate

63. **Intensity in the use of remote channels for banking activity** *

Mark only one oval.

- ◯ I conduct all my banking activity in the branch
- ◯ I use other channels (computer, phone, smartphone) for 25% or less of my banking activity
- ◯ I use other channels (computer, phone, smartphone) for between 25% and 75% of my banking activity
- ◯ I use other channels (computer, phone, smartphone) for between 75% and 99% of my banking activity
- ◯ I use other channels (computer, phone, smartphone) for all my banking activity

64. **Economic situation (facility/ difficulty to make ends meet)** *

Mark only one oval.

- I make ends meet comfortably
- I make ends meet tightly
- Sometimes I do not make ends meet
- I don´y usually make ends meet