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Article

Crowdfunding: An Exploratory Study on Knowledge, Benefits and Barriers Perceived by Young Potential Entrepreneurs

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Abstract: Crowdfunding (CF) has experienced impressive growth in recent years with the development of internet and information technologies that increased the participation of the “crowd” to fund entrepreneurial projects. Young entrepreneurs, especially well-qualified students, have recently begun to play a new role in the economy by launching new ventures in niche markets. The aim of the present paper is to provide a deeper understanding of CF among Portuguese young potential entrepreneurs as an alternative funding mechanism, by discussing its main characteristics and the perceived benefits and barriers that might drive young entrepreneurs to post a project on a CF platform or discourage its use. Through an online survey, we query well-qualified students about the knowledge they have about crowdfunding and benefits and barriers that can increase or reduce the possibility of funding to launch a new venture. The results show that potential young entrepreneurs have moderate knowledge about CF. Consequently, they are not able to explore all the business models available, specifically the models related to investment (lending and equity). The respondents perceive several benefits of the use of CF that go beyond the financial advantages, such as the communication of the project to a wider audience and the additional feedback from potential customers. The perceived barriers that could deter the use of CF are related to the implementation of the CF campaign, although contextual constraints have been mentioned.

Keywords: barriers; benefits; crowdfunding; potential young entrepreneurs; Portugal

1. Introduction

A major problem for young potential entrepreneurs that want to implement an idea through a business plan is the lack of financial resources. Due to the difficulties in fundraising via traditional ways, specifically a lack of lending track record coupled with limited collateral and the strict financial requirements of banks, young entrepreneurs often face serious obstacles when trying to fund their ventures.

Compared with other funding options (business angels or venture capital funds), CF offers some advantages for young entrepreneurs calling for funds, but also involves some risks, as the relationships established between founders and funders are mainly based on the interaction facilitated by the online environment of the platforms or other social media (Belleflamme et al. 2014; Moritz and Block 2016).

Nevertheless, the virtue of CF as a financial source has been highlighted by the literature as a “modern phenomenon arising in the world of project financing” and “one of the latest and most powerful methods to finance projects, or even business” (Hommerová 2020, p. 144). Therefore, it is important to understand how entrepreneurs make decisions for financing a project on a CF platform,

as founders might not have any special knowledge about the new financial mechanism, the best business model to be used or the strategies to apply to attract funds in an online environment, which are different from traditional sources of financing offline (such as banks, business angels, and others).

The objective of this paper is twofold: (i) to evaluate the knowledge of young potential entrepreneurs about the characteristics of CF as an alternative mechanism of funding and the level of adequacy of the different models of CF (donation, reward, lending, equity) for specific ventures; (ii) the perceived benefits of adopting the new funding tool and the barriers that could deter its use.

The selected methodology is quantitative and exploratory, and made use of an online survey that questions well-qualified Portuguese students about the knowledge they have about crowdfunding, the barriers they perceived that could reduce the possibility of funding and the benefits that could motivate them to fund a new venture through an alternative financial mechanism.

The paper is organized as follows. First, we provide several definitions of CF and present the characteristics of the four models of CF (donation, reward, lending and equity). Next, we review the benefits and barriers that could attract or deter the use of this new funding mechanism. Following this, we present the methodology used in the investigation. The results attained are presented and discussed in the fourth section. Finally, the paper ends with the main conclusions, limitations and future research directions.

2. Crowdfunding: Definitions and Business Models

One of the most comprehensive definitions of CF is provided by [Mollick \(2014\)](#). According to this author, CF “refers to the efforts by entrepreneurial individuals and groups—cultural, social, and for-profit—to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the internet, without standard financial intermediaries” ([Mollick 2014](#), p. 2). Similarly, [Belleflamme et al. \(2015\)](#) focus on an open call to provide financial resources that mostly takes place on an internet-based platform and links fundraisers to funders with the aim of funding a particular campaign by, typically, many funders. In these definitions, the important characteristics of this new financial mechanism are emphasized. The process could be initiated by a group or an individual for launching a new project of a cultural, social or for-profit nature. The funds are obtained from the crowd online, without financial intermediaries. However, this definition lacks the business models that might be used on CF.

The focal points of other definitions rely heavily on the role of the crowd in providing funds for a venture. For instance, [Lehner \(2013\)](#) states that CF means tapping a large dispersed audience (the crowd) for small sums of money to fund a project or a venture. In the same vein, [Ordanini et al. \(2011\)](#) view CF as an initiative undertaken to raise money for a new project proposed by someone, by collecting small to medium-size investments from several other people (the crowd). The majority of definitions are positioned between the extended and the restricted views. [Schwienbacher and Larralde \(2010\)](#), among others, have defined CF as an open call, essentially through the internet, for the provision of financial resources either in form of donation or in exchange for some form of reward and/or voting rights to support initiatives for specific purposes ([Belleflamme et al. 2014](#)). Compared with the more restricted view, this definition encompasses the medium (online), the business models of CF and the purpose of the initiative. Inversely, for other scholars ([Ahlers et al. 2015](#)), CF is an umbrella term used to describe an increasingly widespread form of fundraising, typically via the internet, whereby groups of people (crowds) pool money, usually (very) small individual contributions to support a particular goal. This definition misses the different types of business models that CF can assume and the innovative nature of the mode of financing.

In almost every definition, there is no doubt that the development of internet and information technologies has increased the awareness and the participation of the “crowd” in financing entrepreneurial projects ([Agrawal et al. 2015](#); [Gajda and Mason 2013](#); [Baumgardner et al. 2017](#)). Therefore, new generations of entrepreneurs, especially Generation Z and Millennials, composed of more highly educated individuals, are well-positioned to take advantage of this new financial

tool. However, depending on the purpose of the project, there are four business models for CF: donation-based, reward-based, lending-based and equity-based (Parhankangas et al. 2019). Whereas donation-based and reward-based models are regarded as non-investment models, lending-based and equity-based models are viewed as investment models.

In donation-based crowdfunding, backers provide funding based on philanthropic or civic motivations without expecting any return, to support disaster relief, famine, health and other charity-related programs. This model facilitates private contributions to public goods, ranging from the renovation of a public square in a neighborhood to the maintenance of schools (Parhankangas et al. 2019). The platforms Justgiving.com and Gofundme.com are good examples of this model.

In reward-based crowdfunding, backers provide funding to individuals, projects, or organizations in exchange for special perks, early editions of new products, appreciation tokens or “community benefits” (Belleflamme et al. 2014). The backers are treated as early customers or “prosumers”, as they receive a product reward or a token of appreciation, such as a thank-you note, in return for their monetary contribution (Giudici et al. 2017). The platforms Kickstarter.com and Indiegogo.com are the leading companies in the world in this type of model.

In lending-based crowdfunding (also referred to as peer-to-peer lending or social lending), investors supply funds to individuals, groups or small companies, expecting to be reimbursed after a given period, generally with interest rates, without the involvement of traditional financial intermediaries (Guo et al. 2016). The lending-based model is the model that expands the most worldwide—half of the platforms operate under this model (Rau 2017). Some examples of this type of model are the platforms Kiva.org and Fundingcircle.com.

In equity-based crowdfunding, individuals or institutional funders purchase the equity of new ventures or enter into some sort of profit-sharing agreement with a company or organization (Deffains-Crapsky and Sudolska 2014; Ahlers et al. 2015). Examples of this type of model are the platforms Wefunder.com and Localstake.com.

Thus, crowdfunding, due to the different models that it encompasses, can be better suited to commercial or social entrepreneurship and can also be divided into investment and non-investment modes. The investment-related models comprise equity and lending CF, which are mainly applied in commercial CF, although economic ventures can also benefit from non-investment CF modalities, especially when the project is in the early stage of the entrepreneurial process. The non-investment-related models include donation- and reward-based CF, which are typically assigned to social entrepreneurship, since there is no financial return on investment, as the money is given as a donation, although it could evolve for some kind of reward.

According to Paschen (2017), entrepreneurs should select the CF modality (donation, lending, equity) according to the startup stage of the project and the resources needed. In the beginning of a venture (pre-startup phase), organizational resources focus on validating the idea and a crowd provides valuable resources through funding and feedback on a proposed solution. In the next stage (startup), the resources needed are dedicated to validate the product and the market. In the final stage (growth), resources are required to market the offering and scale the venture’s operations.

3. Benefits and Barriers to Crowdfunding

3.1. Benefits

One of the top reasons entrepreneurs decide to launch a CF campaign is the difficulty in accessing funding for their project, as traditional sources of fundraising (such as own savings, family and friends, debt, business angels or venture capital) have failed to respond to the needs of young entrepreneurs. In CF, the entrepreneur could appeal online to a large number of potential investors (backers) to provide a small amount of money to support the project. Indeed, the empirical literature argues that the motives of crowdfunders are different from those of traditional fundraisers, as the formers are not

just driven by financial gains (Yu et al. 2017). For instance, the potential backers of a CF campaign typically do not have the financial expertise that allows them to assess if the project to be funded will provide a financial gain or not. Further, funders are likely to support the project through small contributions if they identify with the project and are willing to provide the social proof of the concept (De Buysere et al. 2012). Thus, crowdfunders' and crowdfundees' behaviors are led by mixed motives that encompass both rational and emotional incentives. As mentioned by De Buysere et al. (2012, p. 9) "profit maximization as a goal is rare in crowdfunding, for now".

From the perspective of backers, the motives to participate in a CF campaign vary among the four crowdfunding models (Cruz 2017). In donation-based CF, empirical evidence suggests that contributions are driven by altruism, but not reciprocity (Burtch et al. 2013). The authors found that altruism is frequently associated with crowding out of donations, and the number of previous donations would reduce the likelihood of new donations. In contrast, reciprocity implies that newcomers will try to match the efforts of past donors (Burtch et al. 2013).

In social peer-to-peer lending (a mix between donation-based and lending-based crowdfunding) Allison et al. (2013) and Chemin and Laa (2013) show that contributors' behavior does not reflect profit-maximizing decisions, implying the presence of pro-social motivations.

In reward-based crowdfunding, motivation tends to be mixed between the desire for special gifts, perceptions of the quality of the project and the viability of the idea posted on the website. Kuppuswamy and Bayus (2017) studied sequential donations on Kickstarter and suggested that the participation of the backers increases with the perception that the financial support will help the project owner. Gerber et al. (2012) used a qualitative approach to grasp the funders' motivations and found that "being part" of the project is one of the reasons most often mentioned by interviewees. In line with academic studies, a survey performed among users of a Brazilian crowdfunding platform corroborates these findings, placing the first motivation to contribute as "identifying with the project", followed by "trusting the project owner's potential" and "the project's quality" (Cruz 2017, p. 39). Cecere et al. (2017) performed a survey with supporters of a French reward-based CF platform and also found that pro-social motivations explain the participation in campaigns.

Less empirical academic research exists on lending- and equity-based crowdfunding. Two surveys aiming at lending-based crowdfunding in the UK show, unsurprisingly, that "making financial returns" and "diversifying the portfolio" are the main reasons to participate in peer-to-peer lending in general. The reasons to lend to a particular company include "financial track record", "customer and market potential", and "personal expertise in the industry that the company operates" (Cruz 2017:39/40).

Comparing to other fundraising sources, CF offers some additional flexibility, and it is a less risky financial tool, since in most of the CF modalities there is no place for a financial commitment related to repayments and interest rate instalments. The only exception is lending CF, although the interest rate charged is usually lower than those applied by banks or other financial institutions.

In the decision-making process of financing a venture, CF can be combined with other financial sources, during or at different stages of the entrepreneurial process. As mentioned by De Buysere et al. (2012, p. 19), CF "can be used before and as a supplement for government support funds, business angels and bank loans, whilst enabling entrepreneurs either to grow their business organically or to scale the business fast through equity investment to make it attractive for early-stage venture capital fund". For instance, CF helps to "de-risk pre-seed to later-stage investments before committing funds, while providing input as to demand, pricing and validity of the business at the same time" (De Buysere et al. 2012, p. 19).

For these reasons, CF could be especially useful for young entrepreneurs at the early stage of new projects, since it helps to compensate for the financial shortage that startups typically face, enhances fund diversification, and multiplies the sources of funding (Hommerová 2020).

Additional reasons are that CF is simple, faster and less bureaucratic than to secure loans from banks. It is simple because the managers of the platform make an analysis based on the credibility of the project and the promoter. It is faster because the period between the call and the money available is

selected by the entrepreneur (duration of the campaign). It is less bureaucratic because there are few administrative documents to be filled in and no collateral warranties required (Mollick 2014).

As stated by D'Ambrosio and Gianfrate (2016, p. 7), "founders just need to provide a description of their project and can rely on millions of potential investors (whereas, in the case of venture capital, some more formal and structured reports are required, such as a business plan, and founders can rely only on a few venture capital firms located in the area), and funders can easily pledge whatever amount they want through their credit cards and from any region of the world".

Further, CF could also bring more flexibility to entrepreneurs, since it allows them to avoid the control imposed by a shareholder (such as by business angels or venture capital) that equity involves (such as business angels or venture capital) or the fixed payment charged by debt (André et al. 2017). However, it should be mentioned that some CF types also involve profit sharing (equity CF) or interest payments (lending CF).

Additionally, the display of the project on a CF platform can increase the value perceived by the market, facilitating access to another kind of investors. As argued by D'Ambrosio and Gianfrate (2016, p. 8), "crowdfunding mainly serves as a first step for the provision of seed capital to start-ups, signaling new ventures as potential good long-term investments and enhancing venture capital investments in further rounds of financing". Thus, according to the author, it makes sense that CF can be used as a blended strategy by young entrepreneurs to: (i) obtain seed capital and (ii) gain access to other funding sources, such as venture capital, which could deliver other important assets such as additional resources, services, and competencies that crowdfunders are not able to acquire by themselves. Thus, as D'Ambrosio and Gianfrate (2016) point out, since CF has some shortages regarding the provision of other kinds of competencies to entrepreneurs, it should never be substituted by other more conventional entrepreneurial financial tools, but rather be used in a complementary way.

Moreover, the academic literature has highlighted other important benefits of CF, such as a market research and marketing mechanism to obtain validation by the potential consumer of new product features, the evaluation of pricing policies for the new product, estimation of the demand, pre-sales of products, customer feedback and electronic word-of-mouth (De Buysere et al. 2012). Indeed, the launch of new products or services always has represented a risk for the nascent entrepreneur. The collection of data from the market and the examination of the consumers' willingness to pay for a product or service provide valuable feedback for entrepreneurs and potential investors. For instance, in the reward-based CF, the investor is simultaneously a potential consumer that is available for a consumption experience and a backer for the project, as the amount of the investor's contribution is associated with the reward given by the entrepreneur, which could reveal their evaluation of the product or service (Agrawal et al. 2015; Giudici et al. 2017). Cruz (2017) show that when entrepreneurs fail to reach their target but receive a positive signal from the "crowd" about their idea, their likelihood of commercializing the product in a marketplace increases.

Thus, the use of CF allows young entrepreneurs not only to acquire money, but also other types of resources, such as: (i) ideas of the potential customers/funders about the product (Baumgardner et al. 2017; Joshi 2018) and (ii) feedback about different issues, such as product features, design, price strategy, channels or demographics of potential customers. Indeed, as stated by De Buysere et al. (2012, p. 13) CF is a "space for co-creation and the involvement of the end-user in the product definition", as well as an instrument for collecting "precise information about market demands".

CF can also be regarded as a channel to implement a marketing communications campaign that, from the very beginning, helps to promote the idea behind the project. Moreover, it can be used as the starting point to trigger word-of-mouth and other social media activities fostering direct customer interaction and strengthen consumers' emotional connection with the project (Hommerová 2020). This kind of feedback provided by CF is much richer than what can be achieved through close friends and relatives, or people living nearby (André et al. 2017).

Finally, another benefit that has been recognized to CF is its democratic nature, eliminating the geographical constraints in which some projects are involved (André et al. 2017). The proximity of

the entrepreneurs to an urban area is frequently related to a higher probability of attracting funds from venture capital companies (De Buysere et al. 2012). However, as CF made use of new digital technologies, the people from different parts of a country or even the world are allowed to come together and help finance a project, reducing the regional isolation of the entrepreneur that lives in more peripheral regions. Hence, CF could be used by entrepreneurs regardless of the location of the business, specifically those located in inhospitable regions, where venture capital financing is even more scant.

3.2. Barriers

Despite the huge benefits that CF can provide, it also entails some barriers that may deter potential young entrepreneurs from making use of this mechanism for financing entrepreneurial projects. The first barrier is time, as online fundraising campaigns require performing a set of managerial tasks. For instance, to put a project in the Indiegogo platform, the entrepreneur has to understand the requirements of the platform, plan and make a video pitch, set a goal (flexible or fixed funding), decide the campaign length and add links to social media (Facebook, Twitter, etc.), among other tasks. According to Cruz (2017), this could be a very time-consuming venture that represents a “full-time job”.

Other major concerns are related to the need to publicly display the project to the general public. To be able to attract the interest, credence and confidence of potential investors, convincing them to provide funds for a given project, entrepreneurs need to exhibit public detailed information about the project. However, the transparency of the information displayed about the project increases the risk of copying, especially for projects in the commercial entrepreneurship domain, imitation of which might reduce or eliminate their competitive advantage (Hommerová 2020). Even so, some authors think that the improvements that can be derived from the feedback obtained from the market (potential consumers) more than compensate for the commercial risk of losing confidentiality.

Another problem is information asymmetry, which could hinder the interaction between entrepreneurs and investors in a CF platform. Information asymmetry describes a situation in which an entrepreneur that puts a project on a CF platform holds quantitatively or qualitatively more information than the potential investors. The information asymmetry derives from the disadvantageous position that the crowdfunder (investor) has about the crowdfundee (entrepreneur), which could lead to the risk of moral hazard (such as fraud) and deter some people from putting their money into a given project (André et al. 2017). As stated by Hommerová (2020), in CF, the distribution of risk is especially unfavorable to the investor compared to entrepreneurs asking for funding. In line with this argument, the European Commission (2015, p. 22), stress that an intrinsic characteristic of CF is information asymmetry, which refers to “investors lacking information about the risks and/or expected returns of their investments”. These risks result from the fact that “investors are likely to be less informed than entrepreneurs or borrowers about the quality of the project” (European Commission 2015, p. 25).

To signal the quality of the project, entrepreneurs display detailed information about the project, previous experience from past ventures, the number of contributors who have already participated (backers), and the number of interactions between participants (e.g., updates), among other elements (e.g., quality of the video pitch).

Empirical research shows that the presentation of prototypes of the future product on the website or the insertion of detailed text descriptions, pictures, graphics and other relevant features of the products offered influence positively the success of crowdfunding campaigns (Koch and Siering 2015, 2019; Hobbs et al. 2016; Kaartemo 2017; Hossain and Oparaocha 2017).

Displaying the number of previous business ventures on the platform is a symptom of the reliability of the entrepreneur’s background and could enhance trust among potential investors compared to entrepreneurs who have not been active before. Previous research found that founders with a high number of successful project campaigns are more successful in subsequent projects (Courtney et al. 2017; Zhou et al. 2018; Janku and Kucerova 2018; Koch and Siering 2015, 2019).

The number of backers (investors) supporting the project is not equal among projects. As this information is available to the public, many future investors tend to associate a higher number of backers with higher quality of the project. This is so-called herding behavior, which is a “rational” way for people to reduce their own risk in the face of uncertainty about the proposed new venture posted on the platform (Kuppuswamy and Bayus 2017). According to Paschen (2017, p. 184) the herd behavior “is the tendency for individuals to mimic the actions of a larger group (. . .) [and] may be caused by the social pressure of conformity or by the common rationale that it is unlikely such a large group could be wrong”. Since crowdfunders are not professional investors and probably do not have the appropriate skills for evaluating the risks involved in each project, “most lenders tend to follow herding behavior and consequently finance loans with high number of bidders” (Mezei 2018, p. 1367). This herding behavior describes, according to Lee and Leem (2011, p. 495), “many social and economic situations in which an individual’s decision-making is highly influenced by the decisions of others”. Thus, according to Cruz (2018), the aggregate amount collected in a campaign could signal the valuation made by investors (how much the crowd appreciates the project) and reveal the project’s potential that is unveiled by the crowd.

Other quality signals can be delivered by the entrepreneur, such as added updates to the project. According to Cho and Kim (2017, p. 313) “to be successful in crowdfunding, continuous communication between the people who participate in a project is necessary”. Therefore, the updates to the project are useful as the description of the project is prepared at the beginning or early stage of the process. After that, the funders are interested in obtaining more information about the status of the project, indications of preliminary results and reports on problems with the delivery of the outcomes of the project. In a review of the literature of empirical studies, Kuppuswamy and Bayus (2017), as well as Mollick (2014), conclude that project funding success is related to the number of updates. Other studies (Block et al. 2018) find that posting an update has a significant positive effect on the number of investments by the crowd and the investment amount collected by the start-up. The quality and length of the video, text without grammatical errors, and more words to explain the project are also associated with a higher probability of success (Mollick 2014).

The feedback of potential customers, which was considered a benefit for entrepreneurs, can also be a disadvantage if negative inputs affect the course of action of the strategy initially defined by the entrepreneur to the project (Hommerová 2020).

4. Methodology

CF is a very promising financial tool that can be used by entrepreneurs to launch new ventures. However, to increase its use among young potential entrepreneurs we must investigate the level of knowledge they have of CF’s main characteristics, as well as perceived motivations and risks. To explore this topic, we undertake an exploratory approach based on a quantitative study. Based on existing literature and the research aims, the authors have developed a questionnaire that was used to collect data through an online survey.

The questionnaire was composed of four groups. The first one intended to collect information about the respondents, such as gender, age, academic and professional profile. The second group was designed to assess the knowledge that students have about CF. A five-point Likert scale was used to measure the level of agreement/disagreement the students had with different definitions of CF. The same type of scale was used in the third group of questions, which included two questions to ascertain the main benefits and barriers that were perceived by respondents on the use of CF platforms.

The online survey was made available online between February and March of 2020 on a Lime Survey platform. An email with a link to the platform was sent to 4714 students of the Institute of Accounting and Administration of Porto (ISCAP), a higher education institution in Portugal, belonging to the Porto Polytechnic Institute. As students are from different business study cycles and the propensity to engage in future new ventures is high, we will consider them as young potential entrepreneurs.

A usable sample of 191 responses was analyzed through the statistical program SPSS, version 24. The characteristics of the sample are summarized in Table 1.

Table 1. Sample characteristics.

Variable	Categories	N	%
Gender	Female	111	58.4%
	Male	79	41.6%
Age	<25 year	129	67.9%
	Between 25 and 35 years	37	19.5%
	Between 36 and 45 years	19	10.0%
	Between 46 and 55 years	4	2.1%
	>55 years	1	0.5%
Course	Higher professional technical courses (CTeSP)	4	2.1%
	Bachelor	145	76.3%
	Master	38	20.0%
	Postgraduate course	3	1.6%
International Student	No	171	89.5%
	Yes	20	10.5%
Working Student	No	116	62.0%
	Yes	71	38.0%
Have launched a business	No	170	89.9%
	Yes	19	10.1%
Have previously used CF	No	179	95.7%
	Yes	8	4.3%

Source: Authors' elaboration.

The sample was composed of 58.4% female students and 41.6% male students. Most of the students were less than 25 years old (67.9%) or aged between 25 and 35 years old. Some of the students (38.0%) were working students. Most of the students were attending a bachelor's (76.3%) or a master's course (20.0%)

The answers were given mainly by Portuguese students (89.5%), although 20 international students also participated in the study (10.5%). The vast majority of the students had never launched an organization before (89.9%) or used CF (95.7%).

5. Results

5.1. Knowledge About CF

In order to assess students' knowledge about CF and its main characteristics, respondents were asked to indicate their level of agreement/disagreement with different definitions of CF. Some definitions were provided by the Portuguese Securities and Exchange Commission (CMVM) and others were based on the different modalities of CF that have been cited in the academic literature.

The analysis in Table 2 shows that the definition that attained greater acceptance by respondents was one that relates CF with an instrument to finance entities, activities or projects through the use of electronic platforms accessed on the web. Most of the students (69.1%) agreed or totally agreed with this statement, with an average value of 4 on a five-point Likert-Scale. Another definition that obtained a high level of agreement was "crowdfunding raises investment tranches from several individual investors", which accounts for an average value of 3.9 and a percentage of 63.9%.

Further, the results show that respondents understand CF as a financial tool primarily applicable to not-for-profit organizations (average of 3.5 by 51.8% of respondents) rather than to business ventures (average 3.2 by 42.4% of respondents).

Regarding the definitions related to different business models of CF, we observe that respondents are quite familiar with the donation-based model (average 3.4, and 43.5% of the answers in the positive pole of the scale). Additionally, respondents show some knowledge about reward-based CF, since 42.9% of the respondents agreed or totally agreed with the definition, for an average value of 3.4.

On the contrary, respondents show a poor knowledge of lending and equity business models of CF (averages of 2.8 and 2.4, respectively). The higher number of missing responses in the more specific CF definitions than in the general definitions reinforces the idea about the superficial knowledge that respondents possess about the peculiarities of CF.

The analysis of Table 3 shows that some variables have a low, but positive and significant association between each other. Specifically, we observe that the general definitions of CF have a moderate correlation ($r = 0.496$), as well as the concept that CF is often associated with the non-profit sector ($r = 0.346$) rather than the business sector of the economy ($r = 0.237$).

To get a more comprehensive insight into the results, we performed factor analysis using the varimax rotation. Since there were some missing cases, the listwise method was used, as it was the one that offered the best quality criteria.

The factor analysis carried out led to the extraction of three principal components, able to explain 64.7% of the total variance. The first component was related to the respondents' knowledge about the investment models of CF and included the variables related to lending and equity CF as a financial source for business entrepreneurs.

The second component was related to the respondents' knowledge about non-investment models of CF and comprised the donation and reward-based models associated with the funding of non-profit entities.

The third factor was related to the respondents' general knowledge about CF and included the definitions "Crowdfunding raises investment tranches from several individual investors" and "Crowdfunding consists of financing entities, or their activities and projects, through electronic platforms accessible through the internet". The results are summarized in Table 4.

The adequacy of the data for factor analysis was confirmed through Bartlett's sphericity test and the Kaiser–Meyer–Olkin measure. The ex-post internal reliability of the scale was assessed through Cronbach's alpha (Hair et al. 1998).

After that, we computed an index for each of the principal components gathered, based on the weighted sum scores method (Field 2005). By using this methodology, we ensured that "items with the highest loadings on the factor would have the largest effect on the factor score" and that the new index would have the same scale as the original data (1 = totally disagree, 5 = totally agree).

The analysis of the indexes constructed shows that the component that had the highest score was the third one, related to the respondents' general knowledge (average of 3.9). The next-highest-rated component was knowledge about non-investment CF models (average of 3.4), followed, finally, by knowledge about investment models (average of 2.8, located at the upper side of the negative pole of the five-point Likert scale). Thus, the results show that respondents know the main characteristics of CF, although they are not able to recognize all the potentialities, since their knowledge tends to be limited to the donation and reward-based models of CF. The results also reveal poor knowledge about the investment models of CF.

Table 2. Knowledge about CF.

Definition	(1) %	(2) %	(3) %	(4) %	(5) %	Not Answered %	Average	Standard Deviation
Crowdfunding consists of financing entities, or their activities and projects, through electronic platforms accessible through the internet	4.7	3.1	22.0	30.9	38.2	1.0	4	1.1
Crowdfunding raises investment tranches from several individual investors	4.7	8.4	20.4	25.1	38.7	2.6	3.9	1.2
Crowdfunding is a form of financing for for-profit entities	17.8	5.2	31.4	20.9	21.5	3.1	3.2	1.4
Crowdfunding is a form of financing for non-profit entities	15.2	4.7	25.7	21.5	30.4	2.6	3.5	1.4
In crowdfunding, the financed entity pays the financing through participation (share) in the capital, distribution of dividends or profit sharing	23.0	11.0	28.8	14.1	13.1	9.9	2.8	1.4
In crowdfunding, the financed entity pays the financing through the payment of the interest rate that is agreed at the time of fundraising	34.0	11.5	25.7	11.0	7.9	9.9	2.4	1.3
In crowdfunding, the financed entity does not remunerate the funds attained, since the financing is assigned as a donation	10.5	12.0	25.7	17.8	25.7	8.4	3.4	1.3
In crowdfunding the financed entity offers some products / services, discounts or other bonuses to investors or some of the investors that support the project	14.7	11.5	25.7	22.5	20.4	5.2	3.2	1.3

Note: (1) corresponds to totally disagree and (5) to totally agree; Source: Authors' elaboration.

Table 3. Correlation matrix for knowledge about CF.

Variable	A11	A12	A13	A14	A15	A16	A17	A18
A11 Crowdfunding consists of financing entities, or their activities and projects, through electronic platforms accessed through the internet	1							
A12 Crowdfunding raises investment tranches from several individual investors	0.496 **	1						
A13 Crowdfunding is a form of financing for for-profit entities	0.237 **	0.257 **	1					
A14 Crowdfunding is a form of financing for non-profit entities	0.346 **	0.229 **	0.324 **	1				
A15 In crowdfunding, the financed entity pays the financing through participation (share) in the capital, distribution of dividends or profit sharing	0.056	0.039	0.355 **	0.015	1			
A16 In crowdfunding, the financed entity pays the financing through the payment of the interest rate that is agreed at the time of fundraising	0.108	−0.038	0.215 **	0.085	0.537 **	1		
A17 In crowdfunding, the financed entity does not remunerate the funds attained, since the financing is assigned as a donation	0.244 **	0.323 **	0.144	0.396 **	0.048	0.109	1	
A18 In crowdfunding the financed entity offers some products/services, discounts or other bonuses to investors or some of the investors that support the project	0.283 **	0.238 **	0.195 *	0.391 **	0.166 *	0.271 **	0.361 **	1

Note: The correlations were computed based on the listwise method; N = 156. (**) The correlation is significant for $\alpha = 0.01$; (*) The correlation is significant for $\alpha = 0.05$. Source: Authors' elaboration.

Table 4. Factor analysis for knowledge about CF.

Components	Factor Loading	Average	Standard Deviation	Eigenvalue	% Var	% Accum Var	Cronbach Alpha
Component 1: Knowledge about non-investment models		3.4	1.02	2.6	33.1	33.1	0.64
A17 In crowdfunding, the financed entity does not remunerate the funds attained, since the financing is assigned as a donation	0.76	3.4	1.33				
A18 In crowdfunding the financed entity offers some products/services, discounts or other bonuses to investors or some of the investors that support the project	0.75	3.2	1.34				
A14 Crowdfunding is a form of financing for non-profit entities	0.7	3.5	1.38				
Component 2: Knowledge about investment models		2.8	1.04	1.6	19.5	52.6	0.63
A15 In crowdfunding, the financed entity pays the financing through participation (share) in the capital, distribution of dividends or profit sharing	0.87	2.8	1.36				
A16 In crowdfunding, the financed entity pays the financing through the payment of the interest rate that is agreed at the time of fundraising	0.81	2.4	1.33				
A13 Crowdfunding is a form of financing for for-profit entities	0.5	3.2	1.36				
Component 3: General knowledge about CF		3.9	0.98	1	12.1	64.7	0.68
A12 Crowdfunding raises investment tranches from several individual investors	0.82	3.9	1.17				
A11 Crowdfunding consists of financing entities, or their activities and projects, through electronic platforms accessible through the internet	0.74	4.0	1.08				

Note: Extraction method, principal component analysis; Rotation method, varimax, with Kaiser normalization; Kaiser–Meyer–Olkin (KMO) measure, 0.670; Bartlett’s sphericity test, $p < 0.000$. Source: Authors’ elaboration.

5.2. Perceived Benefits of Using CF

When asked about the perceived benefits of the use of CF (Table 5), we observed that the most valued advantage is the project visibility, derived from being displayed in an electronic platform. Indeed, 58.7% of the respondents agreed or totally agreed with this benefit (average value of 3.7). Additional feedback from potential customers or backers was also accepted as an important benefit for most of the respondents (average of 3.7).

CF was also beneficial for respondents as it offers the opportunity to lower the costs of financing (average of 3.6), access financial resources faster (average of 3.5) and bypass more easily the bureaucratic process of financing (average of 3.5).

The variable perceived as least important was the requirement for collateral during the administrative process of financing (average of 3.4), although this was positioned on the positive pole of the scale and perceived as a benefit by respondents.

Table 5. Perceived benefits of using CF.

Variable	(1) %	(2) %	(3) %	(4) %	(5) %	Not Answered %	Average	Standard Deviation
B11 Crowdfunding is important because it allows fast access to finance in a few days	5.8	8.9	34.6	33.0	16.8	1.0	3.5	1.1
B12 Crowdfunding is important because it allows easy access to finance without bureaucracy	5.2	9.9	36.1	24.1	22.0	2.6	3.5	1.1
B13 Crowdfunding is important because it allows access to low-cost financing	4.2	7.9	33.0	30.9	22.0	2.1	3.6	1.1
B14 Crowdfunding is important because it does not require the presentation of collateral in financing (such as, for example, guarantee or mortgage)	5.2	9.9	39.3	20.4	20.4	4.7	3.4	1.1
B15 Crowdfunding is important because it allows the entrepreneur to get feedback from potential customers	3.7	5.8	31.4	26.7	28.8	3.7	3.7	1.1
B16 Crowdfunding is important because it allows the project to increase its visibility through the crowdfunding platform	4.2	5.8	30.4	30.4	28.3	1.0	3.7	1.1

Note: (1) totally disagree and (5) totally agree. Source: Authors' elaboration.

Table 6 shows the correlation matrix for all the variables related to the perceived benefits. The correlation matrix suggests that a moderate level of interdependence exists among the different types of benefits perceived by the respondents, since a significant correlation is found for all the variables. However, such moderate levels of correlation should not be damaging to the assumptions of the factor analysis.

Table 6. Correlation matrix for perceived benefits of using CF.

Variables	B11	B12	B13	B14	B15	B16
B11 Crowdfunding is important because it allows fast access to finance in a few days	1					
B12 Crowdfunding is important because it allows easy access to finance without bureaucracy	0.588 **	1				
B13 Crowdfunding is important because it allows access to low-cost financing	0.482 **	0.640 **	1			
B14 Crowdfunding is important because it does not require the presence of collateral in financing (such as, for example, guarantee or mortgage)	0.410 **	0.622 **	0.583 **	1		
B15 Crowdfunding is important because it allows the entrepreneur to get feedback from potential customers	0.475 **	0.485 **	0.685 **	0.459 **	1	
B16 Crowdfunding is important because it allows the project to increase its visibility through the crowdfunding platform	0.445 **	0.467 **	0.620 **	0.445 **	0.791 **	1

Note: Correlations calculated based on the listwise method; N = 171. (**) The correlation is significant for $\alpha = 0.01$. Source: Authors' elaboration.

Table 7 reports the results of the factor analysis that follow from an orthogonal varimax rotation. Based on the scree test criterion (Hair et al. 1998, p. 104), we extracted two principal components (Table 7).

Component 1 is related to the secondary benefits of using CF and comprises issues such as low bureaucracy, no need for collateral and rapidity in financing. Component 2, in turn, is related to the main benefits perceived and includes advantages derived from more visibility of the project, feedback provided by the customers and low financing costs. The index for each of the principal components attained was also calculated according to the weighted sum scores method (Field 2005). This index shows that the most valued benefits perceived by the respondents are related to costs of financing, marketing and communication (average of 3.7) while easy and fast access to funds or collaterals are less valued (average of 3.5).

Table 7. Factor analysis for perceived benefits of using CF.

Components	Factor Loading	Average	Standard Deviation	Eigenvalue	% Var	% Accum Var	Cronbach Alpha
Component 1: Secondary benefits		3.5	0.92	3.7	62.4	62.4	0.779
B12 Crowdfunding is important because it allows easy access to finance without bureaucracy	0.87	3.5	1.10				
B14 Crowdfunding is important because it does not require the presence of collateral in financing (such as, for example, guarantee or mortgage)	0.78	3.4	1.10				
B11 Crowdfunding is important because it allows fast access to finance in a few days	0.7	3.5	1.10				
Component 2: Main benefits		3.7	0.96	0.8	13.3	75.8	0.887
B16 Crowdfunding is important because it allows the project to increase its visibility through the crowdfunding platform	0.9	3.7	1.10				
B15 Crowdfunding is important because it allows the entrepreneur to get feedback from potential customers	0.89	3.7	1.10				
B13 Crowdfunding is important because it allows access to low-cost financing	0.63	3.6	1.10				

Note: Extraction method, principal component analysis; Rotation method, varimax, with Kaiser normalization; Kaiser–Meyer–Olkin (KMO) measure, 0.831; Bartlett’s sphericity test, $p < 0.000$. Source: Authors’ elaboration.

5.3. Barriers to the Use of CF

When asked about the factors that can deter the respondents from using CF as a financial source of funding (Table 8), most of the respondents showed concerns about the possibility of not being able to attain the pledging goal previously fixed to the CF campaign (average of 3.7 and referred by 53.4% of respondents). The next-most-mentioned barrier was the need to provide information about the business (reported by 54% of the respondents and having an average of 3.6); additionally, difficulties related to the preparation and implementation of the crowdfunding campaign (average of 3.4), as well as the regulatory environment (average of 3.3) and the administrative procedures (average of 3.2) were noted as important by the respondents.

Finally, the financial costs supported (average of 3.0), uncertainty related to the ability to repay the capital (average of 3.1), and the personal information that has to be provided during the CF campaign (average of 3.0) are also barriers that deserve to be mentioned.

The correlation matrix is presented in Table 9. We observed that some pairs of variables were significantly related. For example, we identified that the respondents that are more apprehensive about the costs required to prepare a campaign are also those who are more concerned with the costs related to raising capital ($r = 0.635$). Additionally, the individuals that could not use CF due to the difficulties related to the preparation of the CF campaign are those who are more concerned about the information they have to display about the project ($r = 0.575$) and the possibility of not completing the funding goal ($r = 0.558$). Finally, we observe that individuals who are more concerned about administrative issues are more prone to be apprehensive with the regulatory environment ($r = 0.781$).

Table 10 reports the results of the performed factor analysis, which accounts for two principal components. The first one is related to contextual concerns about the use of CF, such as financial, administrative and regulatory issues. The second factor refers to the barriers related to campaign implementation, such as difficulties related to the preparation of the campaign, the need to display information about the business, the fear of failure in the CF campaign and the lack of knowledge about people who will finance the campaign.

The variable “need to provide personal information” was excluded from the analysis, since the loading factor was not considered statistically significant (Hair et al. 1998). The analysis of the indexes calculated according the weighted sum scores method (Field 2005) shows that the most valued barrier is related to the campaign implementation, which had an average value higher than the contextual factors barriers (average of 3.5 and 3.1, respectively).

Table 8. Perceived barriers of using CF.

	(1) %	(2) %	(3) %	(4) %	(5) %	Not Answered %	Average	Standard Deviation
C201 There are difficulties related with the preparation of the crowdfunding campaign	4.2	9.4	40.8	27.7	14.7	3.1	3.4	1
C202 Crowdfunding has costs related with preparing the campaign	6.3	19.4	39.8	19.9	11.0	3.7	3.1	1.1
C203 Crowdfunding has costs associated with raising capital (financing)	5.2	22.0	44.5	15.7	6.8	5.8	3	1
C204 Crowdfunding creates uncertainty about the ability to pay financing costs and repay capital	8.4	14.7	43.5	19.4	9.9	4.2	3.1	1.1
C205 In crowdfunding there is a need to provide personal information	12.6	12.6	38.2	23.0	8.4	5.2	3	1.1
C206 In crowdfunding there is a need to provide information about the business	6.8	6.8	31.9	24.6	28.8	1.0	3.6	1.2
C207 In crowdfunding there is a fear of not being able to obtain the necessary funding	3.1	8.9	31.4	26.2	27.2	3.1	3.7	1.1
C208 In crowdfunding there are fears related to administrative issues	6.3	13.1	40.3	23.6	12.6	4.2	3.2	1.1
C209 In crowdfunding there are fears related to regulatory issues	5.8	11.0	41.4	26.2	12.6	3.1	3.3	1
C210 In crowdfunding it is unknown who will be the campaign's financiers	9.9	13.6	36.1	22.5	12.6	5.2	3.1	1.1

Note: (1) corresponds to totally disagree and (5) to totally agree; Source: Authors' elaboration.

Table 9. Correlations matrix for perceived barriers of using CF.

Variables	C201	C202	C203	C204	C205	C206	C207	C208	C209	C210
C201 There are difficulties related to the preparation of the crowdfunding campaign	1									
C202 Crowdfunding has costs related to preparing the campaign	0.431 **	1								
C203 Crowdfunding has costs associated with raising capital (financing)	0.320 **	0.635 **	1							
C204 Crowdfunding creates uncertainty about the ability to pay financing costs and repay capital	0.261 **	0.359 **	0.540 **	1						
C205 In crowdfunding there is a need to provide personal information	0.216 **	0.334 **	0.297 **	0.232 **	1					
C206 In crowdfunding there is a need to provide information about the business	0.575 **	0.364 **	0.244 **	0.199 *	0.341 **	1				
C207 In crowdfunding there is a fear of not being able to obtain the necessary funding	0.558 **	0.267 **	0.246 **	0.408 **	0.247 **	0.491 **	1			
C208 In crowdfunding there are fears related to administrative issues	0.339 **	0.376 **	0.497 **	0.397 **	0.380 **	0.358 **	0.454 **	1		
C209 In crowdfunding there are fears related to regulatory issues	0.419 **	0.413 **	0.545 **	0.498 **	0.355 **	0.384 **	0.509 **	0.781 **	1	
C210 In crowdfunding it is unknown who will be the campaign's financiers	0.259 **	0.268 **	0.130	0.237 **	0.242 **	0.323 **	0.377 **	0.228 **	0.269 **	1

Note: Correlations calculated based on the listwise method; N = 159. (**) The correlation is significant for $\alpha = 0.01$; (*) The correlation is significant for $\alpha = 0.05$. Source: Authors' elaboration.

Table 10. Factor analysis for perceived barriers of using CF.

Components	Factor Loading	Average	Standard Deviation	Eigenvalue	% Var	% Accum Var	Cronbach Alpha
Component 1: Contextual berries		3.1	0.79	4.4	43.9	43.9	0.822
C203 Crowdfunding has costs associated with raising capital (financing)	0.87	3.0	0.96				
C209 In crowdfunding there are fears related to regulatory issues	0.75	3.3	1.03				
C208 In crowdfunding there are fears related to administrative issues	0.71	3.2	1.06				
C204 Crowdfunding creates uncertainty about the ability to pay financing costs and repay the capital	0.7	3.1	1.06				
C202 Crowdfunding has costs related to preparing the campaign	0.66	3.1	1.06				
Component 2: Campaign implementation barriers		3.5	0.86	1.3	12.5	56.5	0.765
C206 In crowdfunding there is a need to provide information about the business	0.79	3.6	1.17				
C207 In crowdfunding there is a fear of not being able to obtain the necessary funding	0.74	3.7	1.08				
C201 There are difficulties related to the preparation of the crowdfunding campaign	0.74	3.4	1.00				
C210 In crowdfunding it is unknown who will be the campaign’s financiers	0.61	3.1	1.15				

Note: Extraction method, principal component analysis; Rotation method, varimax, with Kaiser normalization; Kaiser–Meyer–Olkin (KMO) measure, 0.821; Bartlett’s sphericity test, $p < 0.000$. Source: Authors’ elaboration.

6. Discussion

The results show that respondents have a general knowledge about the concept of CF, since they know the basic principles of CF that were presented in the first two statements of the survey. As pointed out by most of the definitions of CF (e.g., [Agrawal et al. 2015](#); [Gajda and Mason 2013](#); [Baumgardner et al. 2017](#)), respondents agree that CF consists in a financing process that uses an electronic platform that was made available through the internet.

Although CF has been recognized by the literature as useful for different venture stages, and either social or business entrepreneurship ([Paschen 2017](#)), we observed that respondents tend to have slightly higher knowledge about the use of CF for non-profit entities than for for-profit ventures.

Although the literature review on the topic is very comprehensive on the explanation of the different business models that CF encompasses ([Belleflamme et al. 2014](#); [Hommerová 2020](#), among others), the investigation reveals that young potential entrepreneurs have significant knowledge about the donation and reward-based models, but are not able to recognize the lending and equity models of CF. It is also interesting to note that respondents that can identify the equity model of CF usually also know the lending model.

This suggests that different students exhibit different knowledge levels about the topic: (i) some of them just have a reduced understanding about the topic, which is restricted to non-investment models; (ii) others, are able to realize the wide spectrum of modalities that CF involves and identify those more suitable for different ventures' needs.

The investigation reveals that respondents perceive several benefits of the use of CF.

It is interesting to note that the most valued benefits are the expanded visibility of the project to potential investors, the feedback provided by future customers and backers and the lower costs of funding.

Thus, our findings are consistent with the position held by some researchers who claim the relevance of CF for leveraging the marketing and communication of the project and enhancing the credibility of the entrepreneur ([Cruz 2017](#); [Baumgardner et al. 2017](#); [Joshi 2018](#); [De Buysere et al. 2012](#); [Hommerová 2020](#)). This suggest that CF allows not only the collection of money, but also another kind of assets that could be very helpful for young potential entrepreneurs. The reduced cost of the fundraising operation is also included within the main benefits that are perceived by respondents. These benefits must be underlined, since the perception respondents have about CF is mainly focused on donation or reward-based CF, where typically there is no physical or symbolic reward for the support given. Still, if we were in the presence of lending or equity CF, the financial costs would be higher, even though they usually are lower than the cost charged by traditional funders.

As suggested by the reviews of literature made by [André et al. \(2017\)](#) and [Mollick \(2014\)](#), the results show that respondents recognize other procedural benefits of the use of CF, such as rapidity, less bureaucracy, or no involvement of collateral, but they are not considered the main advantages provided by CF.

Finally, when we analyze the barriers to the use of CF, we observe that contextual issues, such as regulation, are not the main concern of potential crowdfunders. Conversely, in their opinion, the issues that could deter them from using CF as a financial alternative strategy are mainly the difficulties in preparing the campaign, which could be a very complex and demanding activity ([Cho and Kim 2017](#); [Mollick 2014](#); [Koch and Siering 2015, 2019](#); [Hobbs et al. 2016](#); [Kaartemo 2017](#)).

The study suggests some obstacles that could prevent young potential entrepreneurs from using this new financial mechanism. In particular, they are worried about the lack of information regarding the people who visit the platform and the business secrets that could be disclosed about the project ([Hommerová 2020](#)).

7. Conclusions

This investigation aimed to assess the knowledge that young potential entrepreneurs have about CF and to study the main benefits and barriers they perceive in the use of this new financial instrument.

The results of our study are intended to shed some light on CF as an alternative mechanism (beyond family and friends) to help attract funds for financing new ventures.

The results reveal that young potential entrepreneurs have moderate knowledge about CF, although they demonstrate general knowledge about the characteristics of CF, such as the use of online platforms to attract funds for a project and the high number of supporters that contribute with small amounts of funds. Young entrepreneurs show some problems in recognizing all the different business models that CF includes, especially those related to investment models (lending and equity CF). Potential entrepreneurs perceive the concept of CF as applying to both for-profit and non-profit organizations, although with greater relevance to the latter one.

The investigation also indicates that young potential entrepreneurs recognize several benefits of using CF as a financial strategy. Among the perceived benefits, the research carried out highlighted the improvement in the visibility of the project/entrepreneur, the feedback from future customers and the lower financial costs. Other benefits are also recognized, although not as relevant, such as the easy and fast access to capital and the unrequired collateral during the financing process.

Regarding the main barriers to the use of CF, the investigation reveals that instead of being too much concerned with regulatory and contextual issues, potential entrepreneurs have fears about the difficulties of preparing and implementing the CF campaign, and the public information they have to display about the project.

Some practical implications could be derived from the present study. Firstly, all the potentialities that CF can offer as a fundraising tool could not be fully exploited by potential entrepreneurs without more complete knowledge of the business models of CF. Thus, the study carried out highlights the relevance of more education on CF in higher education institutions, through the design of a syllabus that explores the different business models of CF as an alternative source of funding. The syllabus should also include information about non-investment models, since these modalities are especially unknown to students and could be very useful for future entrepreneurs. It is also important to raise awareness that CF could be a very pertinent tool either to social or business entrepreneurship.

Further, the findings suggest some directions to increase the use of CF among young entrepreneurs. The reduction of the barriers related to difficulties in implementing a CF campaign should be attenuated by the design of specific courses of entrepreneurship for different study cycles in higher education institutions' curricula. Ad-hoc courses, oriented to specific competencies needed for less qualified potential entrepreneurs, should also be designed, in order to expand knowledge about management, digital marketing or finances.

Other practical implications could be derived for CF platforms' administrators, which could align their business models in accordance with the real needs of their potential customers (young entrepreneurs), specifically giving technical and management support for the preparation of the campaign. Additionally, CF platform managers should enhance their ability to promote the public visibility of the project via social media. The digital technologies of collecting feedback from backers and potential customers must be diversified and incorporated into the platforms as a mechanism to increase the adaptation of the project to the market and to motivate the potential entrepreneurs.

The main limitation of this research relates to the sampling frame and size of the sample, since the data used came from an online survey sent to higher education students of a management school. Thus, as the study has an exploratory nature, the results attained should be analyzed taking into account the specific context in which the empirical study was developed, which limits the ability to generalize the conclusions achieved to other countries or areas of study, where new investigations are also required. Nevertheless, the findings reinforce the knowledge base of CF, and it is hoped that this exploratory study will provide a foundation and a stimulus for follow-on efforts for future researchers.

In the future, it would be interesting to enlarge the investigation to students of other countries and areas of study, such as engineering, health, arts or design. It would also be worthwhile to extend the investigation from potential to current entrepreneurs, either in the business and social sector.

Future research can also assess the extent to which social and economic entrepreneurs have the same knowledge and perceive in the same way the benefits and barriers of CF.

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