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Corporate Social Responsibility and Crowdfunding: The Experience of the Colectual Platform in Empowering Economic and Sustainable Projects

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Abstract: In recent years, sustainable crowdfunding has been one of the key elements in the search for new sources of financing. This has involved eliminating financial barriers and intermediaries, bringing entrepreneurs' projects closer to fund providers, and thus instigating changes in traditional investment and profitability parameters. Among these indicators, the sustainable business return and its relationship with Corporate Social Responsibility (CSR) could be a relevant factor to improve the cost of funding, to explain the return on assets (ROA), and, consequently, impacting on the return on equity (ROE). In this context, this paper takes as a reference 101 projects that are part of Colectual's lending. We analyze factors such as sustainability—the application of CSR across a social responsibility index; the financial characteristics of the company—liquidity, leverage, and solvency; and the characteristics of the loans related to crowdfunding—amount, maturity, and charge rate of the loan. Our study provides empirical evidence that, besides financial characteristics, the commitment to CSR can improve collective lending and the management of resources, as well as enhance the capital wealth of companies, by improving shareholder profitability or ROE. Investors consider not only financial risk but also sustainability factors.

Keywords: Corporate Social Responsibility; crowdfunding; companies; ranking; Colectual platform

1. Introduction

Information and communication technologies—the Internet—are the object of multiple initiatives in which crowdfunding is found. The concept of crowdfunding comes from the broader definition of crowdsourcing, the latter defined as a new way of solving organizational problems by accessing global knowledge and experience through computer platforms that publicly invite a number of people to carry out a given task [1,2]. Therefore, crowdfunding consists of obtaining capital resources, generally in small amounts and through a group of investors [3,4]. It is characterized "by the successful interaction between a facilitating organization (or platform), a variety of business founders seeking financial support for their ideas and ventures, and a large dispersed "crowd" of individuals ("crowdfunders") who are invited to invest, pledge, lend or donate money for these ideas and ventures" [5].

Crowdfunding can raise money from three types of participants: the first is a person or organization (individuals, entrepreneurs, recipients, creators, and companies) requesting funds for a project. The second relates to a multitude of potential investor sponsors, donors, and funders who provide the funds and, finally, a crowdfunding platform [6]. In addition, crowdfunding can be classified into four main categories: equity-based, meaning that investors want to maximize their financial returns;

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loan-based, meaning that investors want to maximize their financial returns but also minimize the risk of default; reward-based, meaning that funders emphasize project implementation; and, finally, donor-based, meaning that donors want to feel good about themselves and support the cause [7].

In fact, most crowdfunding studies have focused on explaining economic and others qualitative incentives that influence investors' decisions, depending on the type of crowdfunding [4,8,9], while few of them have checked how sustainability has a positive influence in that decision and also in the success of project [10-13].

A new economic era toward a sustainable development is nowadays an important social goal [14]. Furthermore, sustainability developed by companies, named Corporate Social Responsibility (CSR), may have an influence on company profitability, i.e., return on assets (ROA) [15,16], but does not on financial profitability, i.e., return on equity (ROE) [17], given the failure to include sustainability in lending policies [18].

There is a gap in previous literature about the impact of sustainability crowdlending to improve the cost and financial structure of companies that practice active CSR, compared to other companies. The fact of carrying out sustainability practices implies the disclosure of additional information that may be valued by investors and could also be considered a signal of the ethical commitment of companies in relation to their personnel, environment and community.

CSR indicators provide information on various aspects that affect sustainable return or sustainability in the long term, enabling better management that will have an impact on activity indicators. It should lead to, along with a positive effect on ROA, a financial leverage effect in these companies, while also increasing ROE, which could be analyzed through various economic sectors in which crowdlending operates. This can increase investors' confidence about companies and invest higher volume of resources.

The objective of this work is therefore twofold. On the one hand, we focus on presenting the experience of the collective platforms of crowdfunding. On the other hand, we analyze the key elements for the configuration of loans to sustainable economic projects presented by companies and granted by a specific crowdfunding firm, Colectual, in relation to aspects such as sustainability (CSR Index), the financial characteristics of the company (liquidity, leverage, and solvency), and the characteristics of the loan (loan amount, maturity, and loan charge rate).

We analyze which aspects differ and which elements are decisive in the cost of loans, ROA and ROE, to investigate if sustainability crowdlending is empowering a virtuous circle between environmental or social businesses and profitability.

The work is structured as follows: Section 1 contains the introduction. In Section 2, we review the literature and propose the study hypotheses, to highlight the impact of CSR on ROA. Furthermore, what factors, if any, are decisive in the granting of loans to companies, as well as their impact on the loan charge rate and, finally, on ROE. In Section 3, we discuss the methodology used for the work. Subsequently, the following section analyses the results obtained and finally presents the main conclusions.

2. Literature Review and Hypotheses

2.1. Crowdfunding

Crowdfunding can be defined as an additive sum of wills, named "the wisdom of the crowd", which reaches an unusual decision that rivals traditional powers and lobbies, contributing a greater balance to the economy [19].

One of the characteristics of crowdfunding is the relevance of the small, as there are many people who can invest, rather than raising a large amount of money from a very small group of rich investors [4,9]. In the investment world, crowdfunding has emerged as a novel way for entrepreneurial projects to secure funds without having to seek out venture capital or other traditional sources [4,20].

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This is in line with Reference [21], which exposes that the way of financing innovation and entrepreneurial initiatives has been dramatically shaped by the emergence of crowdfunding platforms, namely online platforms through which individuals and companies aim to fund their projects by means of open calls between the platform's members, in exchange for rewards, equity, other monetary benefits, or simply an acknowledgement.

It is useful to distinguish between two broad classes of crowdfunding platforms: investment-based, which consists of stocks, royalties, and loans, where the funders are investors in a campaign and can obtain monetary benefits. The other is reward- and donation-based, where funders do not expect monetary compensation. They fund a campaign because they get a product or because they support its cause (or a combination of both) [22]. Therefore, crowdfunding tracks different objectives for entrepreneurships; nevertheless, there is a considerable volume of donations that use crowdfunding services (22%), and others use it for "raising money" (90%) or to "get public attention" (85%) and "obtain feedback for their product and services" (60%) [21].

These antecedents place loan-based crowdfunding in economic importance, in the first position, since in 2015, it managed to obtain a volume of funds corresponding to approximately \$25 billion. The other crowdfunding modalities—donations, reward, and equity—managed to capture a volume of funds of \$2.85 billion, \$2.68 billion, and \$2.56 billion, respectively. Finally, royalty-based crowdfunding raised around \$400 million in funds [23]. Therefore, crowdfunding gained strength and is an active mechanism for capital formation that supports entrepreneurship and the creation of companies according to the type of crowdfunding that is used.

In general, crowdfunding by reducing the financial costs and by passing the intermediaries of a traditional finance chain becomes a financial alternative. Moreover, the reputation of platforms increases the interest of entrepreneurs, investors, and donors in supporting crowdfunding projects [3].

Focusing on the special case of investment-based funding, crowdfunding reduces the risks of setting up a firm and of investments, because projects presented on platforms are low-budget and often financed by a large audience, where each individual provides a small amount of money [9]. This type of crowdfunding is also a way to reduce the funding gap in the early stages of new investment projects, when funding is typically provided by the founders, friends, and family. These funds are often insufficient [24,25]. The venture capital firms and banks usually only send financial funds in later development phases [26]. Thus, crowdfunding covers a gap in new investment projects [27].

The last financial crisis exacerbated the use of lending crowdfunding [28,29]. Furthermore, it has been shown that, during a financial crisis, enterprises suffering bank financing constraints are more likely to use alternative external financing instruments, such as trade credit, factoring, or leasing [30,31].

Furthermore, crowdfunders as a crowd would be more efficient than a few equity investors alone [32], pooling people's abilities to build a collective intelligence named "the wisdom of the crowd", which is also considered an added value in crowdfunding practices [19].

2.2. Sustainability and CSR in Crowdfunding Projects

One part of sustainability is caring for the environment that future generations will inherit [33–35], and the other involves ending extreme poverty, fighting inequality and injustice, and achieving a more equitable and fairer society [14]. Sustainability is a very broad term that involves all the actors in a society, such as companies, individuals, governments, NGOs, etc. Therefore, it also includes Corporate Social Responsibility (CSR), to the extent that companies are increasingly incorporating aspects such as quality management, environmental management, brand reputation, customer loyalty, corporate ethics, and talent retention [36], related to sustainable development. CSR is defined as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" [37–39]. The legal requirements about CSR indicators are growing and are mandatory for large companies, but they are benchmarks and create a climate that extends the concern for CSR issues to small businesses and society in general.

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CSR is multidimensional and addresses various theoretical frameworks, the most widely used of which are the theory of stakeholders, which consists of the links that the company has with the various interest groups [40]; the theory of legitimacy, as defined as a perception where a business operates in society through a social contract and its actions are desirable, appropriate within a socially constructed system of norms, values, beliefs, and definitions [41,42]; institutional theory examines organizational forms and explains the reasons for having homogeneous characteristics or forms in organizations that operate within a framework of appropriate norms, values, and/or economic behavior [43]. Theoretical frameworks have provided support for the study of CSR in the business sphere, so studies about philanthropy have been related to the use of CSR as a signal to create confidence to investors [44], and the reduction of conflicts between firms and stakeholders [45]. In this sense, signal theory is an adequate framework to study how and why investors value CSR policy.

Companies consider that disclosing information on CSR is a key and strategic aspect, indicating better corporate performance by organizations and projecting a greater image and confidence to investors. In turn, it leads to a reduction in the asymmetry of information between the company and its stakeholders [46,47]. In this way, the theory of signaling [48], which is the most appropriate for the analysis of this issue, explains that companies disseminating CSR information send positive signals and confidence to investors. Therefore, the disclosure of CSR information is considered a positive sign of quality that is related to the communication of signals of intent to indicate future actions and guarantee greater efficiency of companies [49]. It generates improvements in financial performance and ensures honest signals to different stakeholders [50], ensures greater confidence in decision making by investors [51], improves the company's impression, and positively accentuates its reputation and short- and long-term financial performance [52]. Consequently, it increases market value [53,54].

Studies on crowdfunding and sustainability indicate that the sustainability orientation of a company will improve its fundraising capacity. There are two key factors to achieve financial resources: (1) a sustainability orientation positively affects the funding success of crowdfunding projects, and (2) this relationship is partially mediated by project creativity and third-party endorsements [12].

Furthermore, only 35% of venture capital is agreed to obtain potentially lower economic returns in favor of social and environmental returns [55]. In contrast, based on micro-lending data from the Kiva platform, the authors of Reference [10] found evidence that funders find a project more attractive when it is described as a project to help others rather than as a business opportunity. For instance, Reference [11] analyzed the most popular crowdfunding sites and showed that sustainable innovation is a prevalent topic. A search with the keyword "sustainable" received 2407 results in GoFundMe (www.gofundme.com) and 1295 in Kickstarter (www.kickstarter.com). Thus, in line with Reference [56] crowdfunding is an interesting source of capital for environmental initiatives, as it combines the opportunity to generate a profit with the desire to contribute to sustainability initiatives.

For environmental purposes, Reference [13] improves the understanding on the post-campaign period. An average of 70% of the companies who use crowdfunding survive the first year of operation, revealing that crowdfunding can offer conditions for healthy sustainable ventures. The role of crowdfunding in green energies also seems essential. Reference [57] provides insights on crowdfunding of new alternative energy technologies and Genentech initiatives. In Europe, the authors of Reference [58] studied the success of 423 "green" projects published in 27 specialized European crowdfunding platforms. They found that, in line with the hypothesis that pledges are moved by both financial and intrinsic objectives, projects delivering some monetary or tangible benefit to the local community are more likely to reach the funding target.

Nonetheless, other findings suggest that the differences between crowdfunding and conventional finance are potentially exaggerated [59]. An explanation can be found in Reference [60], using a sample of 345 initial equity offerings in United Kingdom platforms Crowdcube and Seedrs, in the period 2014–2015; the study showed how sustainability-oriented offerings perform in equity crowdfunding. The author's results showed, although sustainability does not increase the chances of success of equity offerings, it does attract more restricted investors.

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2.3. Traditional Risk Factors and Financial Cost

The key to successful financial businesses is the management of the relationship between risk and profitability [61]. Unlike a commercial bank, the platform does not take risks through its own contractual positions; in contrast, it decentralizes the risks by spreading them to their users [62]. However, the platform should conduct its own assessment of the credit risk and establish a logical price.

Traditionally, academics and practitioners have developed various models to measure the ability to meet repayment obligations derived from the granting of a loan. They predict firms' bankruptcy based on historical financial data [63–65]. In summary, these authors provide better measures about solvency and profitability that distances firms from bankruptcy and reduces risk and the cost of a loan, while higher debt financing increases the probability of bankruptcy, increasing risk, and thus, raising the price of the loan. Other firms and loan characteristics, such as, for example, size, the amount of the loan, or the devolution time, are other factors collected in contracts, to measure financial risk [66]. We hope that crowdfunding is efficient in assigning the cost of granting, so we present the following hypothesis:

Hypothesis 1 (H1). A positive significant relationship exists between risk measures and cost.

2.4. CSR New Decisive Factor of the Cost of Loan

Furthermore, in crowdfunding, in contrast to the passivity of the traditional sector, a sustainability orientation also affects entrepreneurs' ability to acquire financial resources [11,12,56,67], raising the probability of success, reducing financial costs, or attracting special investors for sustainability because it combines the opportunity to generate a profit with the desire to contribute to sustainability initiatives.

Some crowdfunding platforms have incorporated this important concept into an index which measures the enterprise's CSR. This assessment by companies guarantees greater dialogue with investors [68], creating an analytical hierarchy between companies [69], to achieve better loan conditions depending on it.

The fact that these companies integrate CSR commitments into their actions, and report on this to the financing entities, makes it possible to better measure the risk, which makes it possible to adjust the cost of financing and attract investors to specific projects. Thus, after control by traditional risk factors we offer the following hypothesis:

Hypothesis 2 (H2). A negative significant relationship exists between the cost of a loan and sustainability.

2.5. CSR and ROA

Despite the proliferation of studies, there seems to be no consensus on the relationship between CSR and a company's performance. We can find papers that conclude that the profitability of the company is favored by CSR policies [15,16], but this relationship is not clear. For example, Reference [70] reviewed 52 papers and found 33 studies that suggest a positive relationship between CSR and financial performance; 14 papers were inconclusive, and five papers indicate a negative correlation.

Other authors see a relationship between competitiveness and CSR, but not directly in the financial results of the company [71–73], or with competitiveness and benefit [74,75].

One key to resolve this dilemma is the definition of financial performance. The ROA (return on the assets that have supported the activity), Tobin's q ratio (the ratio between a physical asset's market value and its replacement value), and return on prices appear the most adequate measures to contrast this relationship, while ROE (net income divided by shareholders' equity) does not [17]. In this vein, the authors of Reference [76] suggest that positive stakeholder relationships can reduce the likelihood of difficulty when dealing with groups such as employees, customers, and the community. In addition, good social performance and good managerial practice may be related. They found a logical relationship with ROA but not with ROE. Reference [77] examined the causal relationship between Corporate Social Responsibility (CSR) and ROA, as well as with return on prices. They found that the two variables appear to be related. The authors of Reference [78] focused on the environmental

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aspect of CSR, and they investigated the impact on Tobin's q ratio and on a firm's return on assets (ROA) of what they term its "relative eco-efficiency". They found a positive but asymmetric relationship between eco-efficiency and financial performance.

Tobin's q ratio and return on prices can be calculated for public firms. Nevertheless, our data base has collected only private companies; therefore, ROA and ROE appear the most adequate variables. ROA determines whether the company is able to generate a profitability on investment, so it could be widely correlated with CSR indicators, while ROE also depends on other financial factors, such as the cost of liability and the proportion between equity and liability, which could disturb the relationship with CSR [17,76]. Thus, since ROA assesses the return of investments, independently, whether they are financed by credits or by own resources, the third hypothesis to contrast is as follows.

Hypothesis 3 (H3). A positive significant relationship exists between economic profitability and sustainability policies in firms, prior to the firms' having participated in crowd lending and after their participation.

2.6. CSR and ROE

Previous authors do not see a direct relationship between CSR and the financial results of a company [71,73] concretely with ROE [17,76], because it is not correlated with investment strategies [79] or with sustainability policies. ROE can be the result of artificial financial strategies not correlated with investment strategies [79], as well as with sustainability policies.

On the one hand, Reference [80] found that large firms benefit in the form of positive long-run stock performance following certification of quality management, while Reference [77] stressed a relationship not only between ROA and CSR, but also between CSR and annual return stocks. In fact, the authors of Reference [81] suggest, using UK and US data, respectively, that poor corporate social performance leads to a reduction in the number of long-term institutional investors holding the firm's stock. These findings suggest that, in the case of public companies, good managerial practice impacts in equity market value, an important component of the ROE ratio.

Despite the above paragraph, which shows an important relationship between shareholders and CSR, the theoretical framework does not find a final correlation between ROE and CSR. We suspect that this fact is because the traditional financial sector did not consider CSR as a decisive factor for investing and granting a loan [18], another important factor in ROE. Nevertheless, if a positive relationship exists between the cost of a loan and sustainability, as well as between ROA and sustainability, it could have a final repercussion on ROE, breaking the conclusions of previous studies. Thus, the fourth hypothesis is as follows:

Hypothesis 4 (H4). The cost of a loan has a positive impact on equity profitability, leading to the following.

H4a: A significant relationship did not exist between equity profitability and sustainability before the firm had participated in crowd lending.

H4b: A positive significant relationship exists between equity profitability and sustainability after the acquisition of crowd lending.

3. Methodology

Once the hypotheses are presented, we proceed to explain the sample under study and discuss both the variables and the methods used for the analysis of the regression models.

3.1. The Sample

In Spain, according to Reference [82], at the end of 2017, there was a total of 86 active Crowdfunding platforms, of which 17 were equity crowdfunding, 20 lending, 15 donation, and 34 reward.

To classify the different platforms as sustainable, according to the Crowdfunding Universe (https://www.universocrowdfunding.com/), their respective business models must consist of the search for social and/or environmental improvement. Thus, the number in investment category are 7: There

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are 4 platforms in the equity, comprising 23.5% of the total of investment platforms, and in the lending category, there are 3 platforms, which represents 15%. This overview of the ecosystem of crowdfunding in Spanish shows that about 19% of lucrative platforms could be classified as sustainable. In general, these platforms are more active in communicating and promoting funding of sustainability-oriented initiatives, recommending them repeatedly or even creating specific sections of their website for a subcategory of projects. Nevertheless, Colectual is the only one that reports a sustainability index to improve the credit conditions of projects.

Colectual is a small, young Spanish crowd-lending platform (https://colectual.com) that was founded in 2015, in Valencia; it connects SMEs (small companies) with financing needs to private and professional investors who want to obtain a better return on their savings. Their income comes from commissions on capital raised. They establish transparent and balanced relationships between them, and along with an exhaustive financial analysis, it incorporates a CSR ranking to measure the social responsibility performance of each enterprise, based on seven fields, to grant the loan. This allows us to measure the impact of sustainability on a company's performance, especially in its financial costs and financial profitability.

At the end of 2019, Colectual had raised more than 6 million $\[\in \]$ within 101 projects, its annual growth of loans was 180%, and it had achieved a network of more than 2000 users. The mean profitability for investors is 5.53%, the medium age of investors is 30 years, the success in raising funds per project is nearly 100%, and the medium insolvency percentage is at 1%. The medium amount of each credit is about 58,000 $\[\in \]$, and the mean ticker 1094 $\[\in \]$ by investor [83]. The platform has provided, in an anonymous form, all the data in this study, detailed in Epigraphs 4 and 5.

The collective financing modality is regulated in Spain by Law 5/2015 of April 27, where Crowdlending platforms are defined in its article 46 as: "authorized companies whose activity is to make contact, professionally and through web pages or other electronic means, to a plurality of natural or legal persons who offer financing in exchange for a monetary return, called investors, with natural or legal persons who request financing in their own name to allocate it to a participatory financing project, called promoters" [84]. On September 21 2016, Colectual obtained the legal registration granted by the National Securities Commission (CNMV) as a crowdfunding platform [85] (see Table 1).

Table 1. Spain's participatory financing platform.

Participatory Financing Platforms		
Social Denomination		Registration Date
ADVENTUREROS, PFP, S.L.	14	13/02/2017
BUSINESS DREAM FACTORY PFP, SOCIEDAD LIMITADA	28	24/05/2019
CITYPRIVE PFP, S.L.	30	22/11/2019
CIVISLEND PFP, S.A.	21	06/10/2017
COMPTES PERKS, PFP, S.A.	26	06/07/2018
CROWDCUBE SPAIN, PLATAFORMA DE FINANCIACION PARTICIPATIVA, S.L.	11	25/11/2016
CROWDFUNDING BIZKAIA, PFP, S.L.	25	21/05/2018
CROWDHOUSE WORLDWIDE PFP, S.L.	22	19/01/2018
EASY FINANCING CLUB, PFP, S.L.	6	21/09/2016
ECROWD INVEST PLATAFORMA DE FINANCIACION PARTICIPATIVA, S.L.	10	21/10/2016
EINICIA CROWDFUNDING PFP, S.L.	16	13/02/2017
FELLOW FUNDERS, PFP, S.A.	12	02/12/2016
FUNDEEN SPAIN, P.F.P., S.L.	27	18/02/2019
GROW.LY PLATAFORMA DE FINANCIACION PARTICIPATIVA, S.L.	7	14/10/2016
HOUSERS GLOBAL PROPERTIES, PFP, S.L.	20	02/06/2017
LA BOLSA SOCIAL, PFP, S. L	1	15/12/2015
MYTRIPLEA FINANCIACIÓN PFP, S.L.	3	27/07/2016
OCTOBER ESPAÑA PLATAFORMA DE FINANCIACION PARTICIPATIVA, S.L.	8	14/10/2016
PFP CAPITAL CELL, S.L.	17	17/03/2017
SOCIEDAD ECONOMICA PARA EL DESARROLLO DE LA FINANCIACION ALTERNATIVA COLECTUAL, S.L.	5	21/09/2016
SOCILEN, PFP, S.L.	9	21/10/2016
SOCIOSINVERSORES 2010 PFP, S.L.	2	15/07/2016
STARTUPXPLORE, PFP, S.L.	19	21/04/2017
STOCKCROWD PFP, S.L.	24	13/04/2018

Source: own elaboration, based on the National Securities Commission (CNMV).

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Colectual's financing projects belong to various economic sectors: energy, 19%; company services, 10%; food and beverage; building and education, 9% each, representing the most representative weights; while design, fashion, health, and wellness represent 7%; tourism, 6%; logistics and maintenance of buildings, 5%; technology, 4%; Internet, 3%; and, finally, machinery, transport, and retail, only 2% each.

To accomplish our task, Colectual provided, in an anonymous form, the data corresponding to the different characteristics of granted credits, the economic–financial data of companies, and the CSR questionnaire filled in by the firms and the resulting ranking in the years 2016 to 2019.

3.2. Variables and Measures

3.2.1. Dependent Variable

To check the impact of sustainability on enterprises' financial costs, the annual percentage rate of charge (APR) is defined as follows:

$$APR = \frac{Financial\ expenditures}{Loan's\ amount} \tag{1}$$

In line with References [17,76], we propose to analyze the effect of sustainability on profitability variables: (1) ROA, the return of the company's assets, which is the ratio of the EBIT (earnings before interest and taxes) between net assets, measured at book value and (2) ROE, the return on equity or the ratio of the Net Profit (earnings after interest and taxes) between equity.

$$ROA = \frac{EBIT}{Net \ Assets} \tag{2}$$

$$ROE = \frac{Net\ Profit}{Equity} \tag{3}$$

3.2.2. Independent Variables

To calculate the CSR rating, Colectual proposes indicators in seven fields of action (see Table 2).

Scope Concept Rating Develop a policy or document. 3 Existence of strategic planning and management plans on economic, social, 3 and environmental issues. Existence of sustainability plans for the company. 3 Adaptation of commitments, principles, or other external initiatives of an ethical, **CSR Strategy** 18 1 economic, environmental, or social nature. Certifications. 2 Stakeholders' opinions. 2 DOFA analysis. 3 Sanctions last 3 years. 1 Good governance and transparency. 3 2 Governing bodies. Legality in the fulfillment of its legal responsibilities in economic, social, 3 Transparency and and environmental matters and guarantees its compliance. 14 Good Governance Legality of specific voluntary employment records. 1 2 Disseminate Public Information. 3 Implementing anti-corruption measures.

Table 2. Corporate Social Responsibility (CSR) Index.

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Table 2. Cont.

Scope	Concept	Rating		
	Job creation in the last 12 months.	2		
	Competitive economic remuneration, with salaries higher than the minimum stipulated in the reference convention.			
	Financial remuneration for the best paid.	2	-	
	Economic incentives.			
	Social benefits.	2	-	
	Conciliation of personal and work life to its workers.		-	
	Extends its occupational risk prevention activities.	1	-	
	Recorded accidents at work in the last twelve months.	1	-	
Employment	The company has a policy of promotion and selection of personnel.	2	2	
	Regular assessments are made of the competence and performance of workers.	1	_	
	The company has an employee training program.	3	-	
	In the company, there is a system known by all the staff to regulate the behavior of the employees. Is there a system in the company to evaluate the work climate or worker satisfaction.		-	
			-	
	Equality policies.	2	-	
	The company promotes volunteer practices among its employees.	1	_	
	The company has a legal obligation to hire people with disabilities.	1	-	
	The company develops an activity with environmental risk.	3		
	The company produces emissions of air pollutants, greenhouse gases, or other ozone-depleting substances.	2	-	
Environment and	The company discharges wastewater into watercourses or collectors.		-	
Climate Change	The company has implemented measures to preserve the environment.	2	- 1	
	The environmental aspect is important for the company.	2	-	
	The company complies with all applicable legislation regarding the packaging it uses in the marketing of its products.			
	The products and services it generates have an environmental impact.	2	_	
	Customer Service	2		
	Does the company have a policy on advertising, a code, or has adhered to one.	2	-	
	Products and services.	2	-	
Clients	The company has tools to preserve customer privacy, protection, and treatment of personal data and confidential information. You have introduced some procedure in the life cycle of the product/service to improve its impact on the health and safety of customers. The company has mechanisms for disclosure and communication to stakeholders and takes preventive and corrective measures with agility.			
			_	
			_	
	The company has a customer service.	1		
Suppliers	Has your company implemented mechanisms to evaluate and select suppliers and subcontractors, such as a purchasing policy or a code of ethics?		_	
cappiners	Conducts some control or periodic audit on their suppliers.	3		
Community (social action and	In the last twelve months, the company has cooperated with social (cultural, sports, educational, etc.) or environmental activities with the local community.	2	_	
social impacts)	The company is concerned about the negative impacts that its activity may cause	3		

Source: Colectual (https://colectual.com/).

The creation and origin of the classifications comes from the world of sports, which has been successfully replicated in other fields of knowledge, such as universities and other organizations where companies are located [86–88]. Indexes or rankings build reputation and trust [89]. They consolidate legitimacy in organizations [90,91]. They serve to establish mechanisms where at least 2% of their net profits is dedicated to enhancing the image both internally and externally [92]. Social responsibility indices or classifications are diverse [69]. Therefore, the index constructed by Colectual employs a series of items based on the literature and previous works [93,94]. The index is the sum of the 7 sections (CSR Strategy; Transparency and Good Governance; Employment; Environment and Climate Change; Clients; Suppliers; and Community (social action and social impacts)), the sections with the greatest weights are related to Employment (29 points), followed by CSR Strategy (18 points) and aspects related to Environment and Climate Change (15 points).

The inexistence of an active market for private firms makes it impossible to use other enterprises' performance indicators, such as Tobin's q or return on prices [78]. To complete the economic characterization of firms, the balance sheets and income statements of firms have been extracted from the ORBIS data base.

Table 3 shows the definition of the independent variables, based on the framework and data provided by Colectual: (1) sustainability—the firms' score obtained; (2) enterprises' financial characteristics—liquidity, leverage, K_I , and solvency [63,64]; (3) loan characteristics—amount lent, term of maturity, and the loan's rate of charge [66]; and (4) control variables—size, which is the number of employees [95,96], and year, to capture the impact of the economic cycle.

Definition Value Variable Name **Variables** 1. Sustainability 1. SCORE. The score obtained across the application. Continuous 2. LIQUID. Current assets between Total assets. 3. LEVER. Total liability between Total equity. 2. Financial Continuous 4. SOLV. Total assets between Total liabilities. 5. K_I. Total financial expenditures between remunerated liabilities. 6. AMOUNT. The amount borrowed by the crowd. 3. Loan 7. TERM. Loan maturity. Continuous Characteristics 8. N.INVEST. Number of investors in each loan. 9. APR. The annual percentage rate of charge. 10. N.EMPLOY. the number of employees Continuous 4. Size and Year 11. YEAR. Year of the loan operation of the 2016 to 2019 period Variables Variable dummy (a dummy variable for each year).

Table 3. Model dimensions.

Source: author-compiled data.

After obtaining the sample data, the following regression model was applied to test the hypotheses, using Stata statistical software. In this form, to contrast Hypotheses 1 and 2, Equation (4) collects as a dependent variable APR, and as an independent variable sustainability, financial, and loan characteristics, as well as size and year variables.

$$APR = \alpha + \beta_1 SCORE + \beta_2 LIQUID + \beta_3 LEVER + \beta_4 SOLV + \beta_5 ROA + \beta_6 INVEST + \beta_7 AMOUNT + \beta_8 TERM + \beta_9 MEMPLOY + \beta_{10} Yeart + \varepsilon i$$

$$(4)$$

Equations (5) and (6) incorporate ROA and ROE as independent variables to contrast Hypotheses 3 and 4, and, unlike the previous equation, the financial and loan characteristics play the role of control variables:

$$ROA = \alpha + \beta_1 SCORE + \beta_2 LIQUID + \beta_3 LEVER + \beta_4 INVEST + \beta_5 AMOUNT + \beta_6 MEMPLOY + \beta_7 Yeart + \varepsilon i$$
 (5)

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Finally, to check Hypothesis 4 and have a better understanding of the effect of liabilities on ROE, the financial cost of debts and its interaction with SCORE have also been added in Equation (6).

$$ROE = \alpha + \beta_1 SCORE + \beta_2 LIQUID + \beta_3 LEVER + \beta_4 SOLV + \beta_5 INVEST + \beta_6 AMOUNT + \beta_7 MEMPLOY + \beta_8 KI + \beta_7 KI SCORE + \beta_{10} Yeart + \varepsilon i$$
(6)

The last two equations have been calculated before (n-1), and after the firms enter the platform and obtain a loan, (n), to have a dynamic vision about the impact of sustainability on ROA and ROE.

4. Analysis and Discussion of the Results

4.1. Descriptive Analysis

Table 4 presents summary statistics for our measures of CSR, financial performance, and control variables from the 101 projects reported by Colectual. ROA is less than 9% and ranges from 3% to 28%, while ROE is bigger, at 19%, ranging from -0.4% to 88.48%. The medium value of APR is 12.83%, tracking from 2.92% to 32.77%. These results imply a leverage effect of ROE over ROA in an important part of the example.

Variable	Obs.	Mean	SD	Min	Max
APR (%)	101	-12.83	5.31	-2.92	-32.77
ROA (%)	101	8.36	5.68	0.03	27.78
ROE (%)	101	19.27	18.92	-0.40	88.48
SCORE	101	45.87	20.38	21.00	65.00
LIQUID	101	1.50	2.05	0.00	14.04
LEV (%)	101	4.02	7.56	-5.15	59.09
SOLV	101	1.84	2.20	0.92	16.28
K _I (%)	101	-6.70	12.80	0.00	-126.84
TERM	101	14.50	13.27	1.00	48.00
N.INVEST	101	52.58	26.60	5.00	133.00
AMOUNT	101	58,916.51	52,206.80	4101.00	300,000.00
N.EMPLOY	101	35.50	42.71	0.00	200.00
Year	101	2018.05	0.83	2016.00	2019.00

Table 4. Dependent, independent, and control variables.

Source: own elaboration.

Analyzing the financial firms' ratios, LIQUID and SOLV presents normal values of 1.5 and 1.8, respectively, while we also highlight a mean big ratio of 4 for LEVER, albeit, as in previous parameters, with a high standard deviation.

CSR collects firms which base their differentiation by assuming greater awareness of CSR. The measures adopted in Spain and Europe on aspects and regulations related to CSR and adopted by Colectual are a key element to evaluate the loans. The medium firms' score (SCORE) from the CSR index is 45.87 points, albeit its range tracks from 21 to 65 points (of 100 points). Seventy-seven firms completed the questionnaire of 101 granted loans, and for enterprises that did not fill the index, around 23%, the SCORE is 0. Depending on the SCORE, these enterprises obtain greater advantages and economic discounts on the loans requested.

The loans granted by Colectual to enterprises' projects range from a minimum of 4,000 EUR to a maximum of 300,000 EUR. Therefore, as shown in Table 3, the average of the projects is less than 60,000 EUR. If we analyze the number of investors in each loan, the average composition is around 53 investors; nevertheless, there are projects with more than double this (maximum 133 members). The average loan term (TERM) is on average 14.5 months and ranges from 1 to 48 months.

Finally, the companies that apply for the loans do not have a very high number of employees (average of around 35 employees); albeit, since the standard deviation is very high (42.71), the number

of employees in some companies is larger, 200 employees (see Table 4). Therefore, for this sample, there are firms with different sizes, as well as economic and financial characteristics.

Table 5, below, highlights a positive and logical relationship between ROA and ROE; between LEV with APR and ROE; SCORE with TERM and INVEST; between SOLV and LIQUID; INVEST and APR; and, finally, AMOUNT and EMPLOY. In contrast, the table shows a negative relationship of APR, the cost of a loan, with SCORE and TERM, as well as between LEV with SOLV and ROA, and, finally, K_I with ROE. Nevertheless, in the different models proposed, Equations (4), (5), and (6), we have observed in them a level of variance inflation factor: VIF (the index that measures how much the variance of an estimated regression coefficient is increased because of collinearity) of equal or less than 5, ensuring an acceptable level of it to avoid multicollinearity in each combination of these variables.

1 2 3 5 8 10 11 12 13 1. APR 1.00 2. ROA 1.00 -0.093. ROE 0.04 0.28 *** 1.00 0.25 *** 4. SCORE -0.18 *** -0.011.00 5. LIQUID 0.01 0.12 -0.02-0.071.00 6. LEV 0.27 *** -0.24 *** 0.21 ** -0.14-0.171.00 0.74 *** -0.177. SOLV -0.08-0.151.00 0.13 -0.090.03 -0.2 ** 0.03 0.05 1.00 -0.04-0.09 0.11 8. K_I 9. TERM -0.59 *** -0.17 * 0.36 *** -0.03-0.17 * 0.00 0.03 1.00 10. N.INVEST 0.26 *** 0.09 -0.10-0.120.17 * -0.24 *** -0.13-0.24 *** 0.16 0.52 *** -0.17 * 0.02 0.05 11. AMOUNT -0.070.08 -0.14-0.13-0.030.12 1.00 0.38 *** 0.38 *** 0.19 ** 12. N.EMPLOY -0.12-0.14-0.12-0.16-0.15-0.14-0.160.11 1.00 0.34 *** 0.28 *** 0.14 -0.12-0.22 -0.150.05 0.04 -0.16 1.00 13. Year

Table 5. Correlation matrix.

Source: own elaboration. * Significant at 0.1; ** Significant at 0.05; *** Significant at 0.01.

4.2. Analysis and Discussion of Regression Models

The data in Table 6 show the results of the multiple linear regression model. The model was estimated by applying OLS regression, to avoid the autocorrelation among repeated observations over years for every individual, and for the heteroscedasticity problem, the asymptotic variance of errors was estimated by using robust standard errors (VCE) clustered by each observation, ID, through the following command: VCE clustering (ID). The *p*-values, based on heteroscedasticity-adjusted standard errors, are in brackets.

Table 6 shows the results obtained from regressions. Regarding Equation (4), model APR, checking the efficiency of the platform in assigning the cost of granting, LEV has a positive and significant relationship with APR; while ROA has a negative and significant coefficient, EMPLOY is another control factor that strongly improves APR; thus, both factors reduce risk and make more attractive entities for investors, while LEV increases the insolvency risk, making the loan's cost more expensive.

The amount of the loan, AMOUNT, is another factor which increases a loan's cost. Regarding the variable maturity term (TERM), the results show a significant and inverse relationship. When the term increases, the cost decreases because Colectual always charges a fixed commission, regardless of the term, so when the term increases, the commission is diluted in the cost calculation (APR). Thus, and according to the results obtained, Hypothesis 1 is accepted.

Nonetheless, at the same time, Colectual policies focus on sustainability as a mechanism to establish significant discounts on the commission, and therefore, in the cost of the loan. Regarding sustainability, the SCORE variable is significant and inverse with the loan's annual percentage rate, which indicates a discount in the financial cost established by the crowdfunding platform. For example, if a firm has filled the Colectual's index, obtaining a score of 65 points, it implied 4.48% (65×0.069) less in the borrowing' cost (APR) (Table 6), confirming Hypothesis 2.

In relation to Equation (5), ROA_{n-1} and ROA, they are positively and significantly related with SCORE, indicating that active sustainability policies result in important value drivers in order to increase economic profitability before and after the inclusion in the collective loan platform. For each

point in SCORE, ROA increases 0.17%, so a company which has obtained 50 points in the CSR index will have a positive impact on ROA of 8.5%. Therefore, Hypothesis 3 can be accepted.

Table 6. Regression model results.

Variable	APR	ROA _{n-1}	ROA	ROE _{n-1}	ROE
CCORE	-0.069 ***	0.115 ***	0.168 ***	-0.052	3.127 **
SCORE	(0.029)	(0.033)	(0.057)	(0.135)	(1.693)
LIQU _{n-1} /LIQU	0.338	0.441 ***	1.069 ***	1.106	4.099
$\text{LiQO}_{n-1}/\text{LiQO}$	(0.232)	(0.161)	(0.422)	(0.860)	(10.661)
$\mathrm{LEV}_{\mathrm{n-1}}/\mathrm{LEV}$	0.084 *	-0.212 ***	-0.337 *	1.278 ***	-1.546
EEV _{n-1} /EEV	(0.048)	(0.058)	(0.205)	(0.213)	(3.062)
ROA	-0.114 ***			1.481 ***	17.118 ***
KOA	(0.042)			(0.293)	(5.430)
N. INVEST	0.007	0.052 ***	0.118 ***	0.062	-0.038
IN. IIN VEST	(0.019)	(0.020)	(0.052)	(0.094)	(0.571)
AMOUNT	0.000 ***	0.000	0.000 ***	0.000 **	0.000
AMOUNI	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N.EMPLOY	-0.023 ***	-0.044 ***	-0.087 **	-0.0411	1.229 *
N.EWH LOT	(0.010)	(0.013)	(0.027)	(0.045)	(0.597)
TERM	-0.286 ***				
I EIWI	(0.047)				
SOLV _{n-1} /SOLV	-0.304			-1.451 ***	-8.302
SOLV N=1/SOLV	(0.217)			(0.591)	(9.877)
K_{I}				-0.233 ***	0.684
11				(0.044)	(0.54)
K_{I} ·SCORE				0.000	0.480 ***
•				(0.000)	(0.179)
Year	Yes	Yes	Yes	Yes	Yes
Intercept	8.617 ***	7.627 ***	27.553 ***	3.417	-413.906 ***
ī	(1.176)	(2.881)	(7.306)	(7.751)	(173.180)
R-squared:	0.55	0.33	0.33	0.44	0.63
SE adjusted for number of observations	101	101	101	101	101

Source: own elaboration. Significant at 0.1; ** significant at 0.05; ***significant at 0.01.

On the other hand, the ROA_{n-1} and ROA equations also show that, in both models, there is a significant and positive relationship with the liquidity factor (LIQU). The companies that have greater capacity to generate cash—that is the way to convert their liquid assets in the short term—guarantee the profitability of companies and projects. Likewise, the variable number of investors in each project (N.INVEST) is significant on ROA, indicating that a greater number of investors in a given project generates more confidence in it, providing financial resources, and therefore, ensuring the firms' profitability. In contrast, an excess of leverage (LEV) has the opposite effect on ROA. Finally, size, represented by N.EMPLOY, results in an important control factor, which explains historical and current ROA.

Finally, Table 6 also shows the repercussion of crowd lending on ROE, Equation (6). Before the acquisition of the loan, in ROE_{n-1} model, SCORE was not significant, in line with Hypothesis 4_a , and K_I had a negative impact, so when the financial cost increases ROE decreases, while financial conditions $LIQU_{n-1}$, LEV_{n-1} , $SOLV_{n-1}$, and ROA_{n-1} were also important control factors.

However, after the granting of the loan, in regard to ROA, the positive impact on ROE continues, while the interaction of the $K_{\rm I}$ and SCORE (the enterprise's financial cost when the SCR score increases) also has a positive effect on ROE. Finally, the average impact of SCORE also stays positive on ROE when, previously, this was not in ${\rm ROE}_{n-1}$, affirming and explaining Hypothesis 4_b . Thus, crowd lending is empowering enterprises' equity wealth, ROE, breaking the borders of ROA and, therefore, improving shareholders' profitability.

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4.3. Discussion of Results

In spite of the rapid accumulation of research contributions on the crowdfunding phenomenon [97], as well as the increasing relevance of this for sustainability-oriented projects, the number of studies finding a positive relationship between crowdfunding and sustainability is still scarce, e.g., References [10,12,13,56].

The existing literature provides ambiguous theories between the sustainability orientation of the ventures and their ability to deliver successful crowdfunding campaigns [98]. Sustainability in equity crowdfunding highlighted higher sensitivity from small investors, relative to professional investors [99], while other authors have indicated that social relations magnify the effect of a local altruism concept [100], and sustainability components are also exaggerated by the entrepreneurs' social capital [20,100,101].

However, the empirical evidence of a big number of sustainability projects, in social and environmental situations [11,58,102], shed light on the adequacy of crowdfunding and the unavailability of other financing channels.

Previous works have concluded the profitability of the company is favored by CSR policies [15,16], while other authors see a relationship between competitiveness and CSR, but none directly with the financial results of the company, ROE [71-73].

This is one of the first papers to investigate the impact of CSR in investment based on crowdfunding lending. The results of this paper, in line with References [15,16], found a positive relationship between the CSR index and a company's performance, ROA, but also with a firm's financial cost, APR, and, finally, with ROE.

Nevertheless, the relationship between ROA and CSR existed before the acquisition of Colectual's loan, so an active CSR policy related to an improved relationship with the stakeholder, society or environmental, impact positively on the investment's profitability regardless if the financial cost has been calculated from a sustainability index or not, although there is no doubt that some aspects of the company's financial structure, such as the company's liquidity or leverage, may affect ROA.

Furthermore, Colectual's credit-granting policy considers the score obtained by each enterprise in the CSR index to reduce its financial cost, removing the obstacles of the traditional financial sector in regard to sustainability projects [18], by control of the rest of the enterprise risk characteristics, such as LIQU, LEV, ROA, EMPLOY, SOLV, and other loan characteristics such as AMOUNT and TERM.

In this vein, the positive relationship between risk variables and APR confirms an efficient performance in assigning the price of loans [63,65], and thus the rentability to crowdfunders [62].

Finally, analyzing the consequences of Colectual's policy on financial profitability, the ROE model shows that it is positively related with the score obtained in the CSR index. It can be explained because we can observe in Table 6 that a previous improvement in APR is transferred to the full cost of financial debts, K_I , which, depending on the SCORE obtained, has a strong and positive influence on ROE, in respect to the rest of the enterprises that did not fill the CSR index. ROA also has a positive effect, which is positively influenced by CSR. Both factors trigger a final leverage effect on ROE.

Nevertheless, the analysis confirms that this fact did not exist in ROE_{n-1} , before the granting of Colectual's loan, due to the non-consideration of the CSR index as a decisive factor for granting the loans and their cost (APR) [18]. Therefore, small investors across platforms such as Colectual are becoming important drivers of sustainable finances. These platforms are an adequate vehicle to transmit the value of enterprises' sustainability in a rational and effective way.

5. Conclusions

There is a clear social awareness of sustainability promoted by public powers through innumerable agreements and declarations of intentions [14,33–35], supported by the media in an incremental way. However, in line with References [18,55], the rapid growth of sustainable crowdfunding is filling the gap of an archaic and conservative financing system, reluctant to support economic projects with financial resources that allow the transition toward a new economic model based on sustainability.

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In this way, the Internet is driving a new economic crowd revolution in financial business. Previously those who were highly skilled and possessed large amounts of cultural and economic capital were more likely to be in control. However, in crowdfunding, the original final customers of the traditional financial system grew to occupy the role of funders, incorporating social and environmental values across a new power that is emerging as a consequence of a community logic: the wisdom of the crowd [19], guided by crowdfunding platforms.

The progress of these results has made it possible to demonstrate how CSR is a key and a strategic aspect that allows improvements in ROA, but also in the financial structure of companies, thus, finally, in ROE. These results break the borders of the Colectual platform, leading us to argue that CSR is not only an element that generates confidence among investors or reduces the asymmetry of information to various stakeholders, but also generates a risk assessment, and is positioned as an aspect that can be decisive when it comes to ensure sustainable finances.

The present study could have important implications not only in the literature but also from the point of view of crowdfunding platforms and traditional financial systems in terms of the construction and incorporation of new variables across CSR rankings that serve as elements for measure, based on signal theory [44,45], enterprises' sustainability performance, risk, and, therefore, the evaluation of granting loans.

Furthermore, sustainability crowdfunding is changing the old paradigm from an unscrupulous investor to one that is socially responsible, capable of creating a virtuous circle, in which, economic profitability and improvements in the environment feed back into each other, to increase financial profitability, transforming, in a macroeconomic context, economic growth toward sustainability development.

Nevertheless, small investors have been found to have different investment preferences compared to institutional investors [103], and their attitude toward sustainability is likely to be different. While professional investors might follow a market logic, this paper has demonstrated that small investors also consider a community logic [60], a gradual increase in the concept of sustainability in institutional investments is expected, so future research might dig deeper in this direction, leveraging the insights from institutional market logic toward sustainability and its implications in enterprise profitability. On the other hand, the proposed models could be used in other geographical areas, analyzing the differences or possible similarities in the incorporation of sustainability information to crowdfunding. Therefore, comparisons could be made between countries or continents and even characterized according to their administrative culture.

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