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Does Green Exclusivity Pay Off?

The Moderating Role of the Platform Choice in Reward-Based
Crowdfunding for Sustainability-Oriented Projects

-Master's Thesis-

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Abstract

Due to the breadth of different crowdfunding platforms, sustainable entrepreneurs need to weigh up several aspects before deciding where to launch their campaign. Among other things, they need to take into consideration whether a platform is thematically open or excludes conventional (i.e., non-sustainable) projects. But despite this relevance and while studies on crowdfunding success are not uncommon, to the best of our knowledge, academia has not yet explicitly answered the question if it is more promising for sustainable entrepreneurs to start their project on a sustainability-oriented instead of a conventional platform. We predicted that sustainability at the project level would both increase the number of funders and the average funding amount, but choosing a platform that does not allow conventional projects would negatively moderate the first association and strengthen the latter link. To test the hypotheses, we collected data on two reward-based crowdfunding platforms in Germany and ran logistic regression as well as conditional process analyses. Despite indications, our results do not support our hypotheses and show that -at least in our chosen context- a sustainability-orientation does not really matter. In addition, the platform did not significantly moderate any of the potential effects. We assume that these results might be due to the loose ideologies of the studied platforms and thus recommend entrepreneurs not to make decisions only based on formal differences but to carefully examine the other projects on the crowdfunding marketplaces they are interested in. Further, we encourage to conduct additional research with a more distinguishable sample and to investigate our research question in the context of investment-based crowdfunding.

Keywords: sustainability-oriented crowdfunding, crowdfunding platforms, sustainable entrepreneurship

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V. List of Abbreviations

Abbreviation	Explanation
AoN	All-or-Nothing
CI	Confidence Interval
CPA	Conditional Process Analysis
KiA	Keep-it-All
LRA	Logistic Regression Analysis

1. Introduction

Over the years, crowdfunding has evolved, leading to a myriad of crowdfunding platforms¹. Crowdfunding can be defined as “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). How entrepreneurs raise funds by tapping the “crowd”, can vary in several aspects. Among other things, there might be dissimilarities concerning the crowdfunding model (i.e., donation-, equity-, lending, and reward-based [Vulkan et al., 2016]) or the funding mechanism (All-or-Nothing [AoN] vs. Keep-it-All [KiA] [Bi et al., 2019]). In addition, the level of openness of the platform regarding campaigns can diverge.

As van Teunenbroek et al. (2023) state, crowdfunding encompasses four components: the project, the initiator, the donor, and the platform. The latter serves as the mediator between the project creator and funder (van Teunenbroek et al., 2023), and in this paper, we are especially interested in that component. Platforms communicate projects to prospective backers through personalised pages created by the fundraiser (van Teunenbroek et al., 2023), with significant dissimilarities between these internet-based matchmakers (Belleflamme et al., 2015). Whilst there are conventional platforms which offer a variety of different crowdfunding project categories (e.g., Kickstarter or Indiegogo), some marketplaces specialise in projects from specific industries/sectors like agriculture (e.g., Yes We Farm), art (e.g., Karolina Fund) or science (e.g., Experiment). Additionally, a handful crowdfunding platforms require campaigns to meet certain sustainability criteria, i.e. there is a focus exclusively on green and/or social projects (e.g., EcoCrowd², Bolsa Social³ or GreenFund Holland⁴).

This diversity of crowdfunding platforms requires entrepreneurs seeking funding via the crowd to consider multiple factors to choose the environment that best suits their plans. Thus, *sustainable* entrepreneurs eventually need to decide whether to start a campaign

¹ Crunchbase lists a total of 3,390 organisations related to crowdfunding. Although this number might also include companies which are not platforms, it still shows that crowdfunding is not a niche anymore.

Crunchbase (2024). *Crowdfunding Companies*. Retrieved on 16.03.2024 from <https://www.crunchbase.com/hub/crowdfunding-companies>

² EcoCrowd (n.d.). *Guidelines for project evaluation*. Retrieved on 13.04.2024 from <https://www.ecocrowd.de/guidelines-for-project-evaluation/>

³ Bolsa Social (n.d.). *Which criteria do you use to filter your projects?* Retrieved on 19.04.2024 from <http://beta.bolsasocial.com/faq/#>

⁴ GreenFund Holland (n.d.). *Wat maakt ons uniek?* Retrieved on 19.04.2024 from <https://greenfundholland.nl/over-ons-crowdfunding-website/#uniek>

on a conventional or sustainability-oriented platform. But albeit the platform choice seems to be an important step to be taken, and scholars have already suggested researching the success rate of sustainable crowdfunding projects on sustainability-oriented platforms, to the best of our knowledge, academia has not yet explicitly answered the question whether it is more promising for sustainable entrepreneurs to collect funds on green instead of conventional platforms. In fact, extant literature has often studied a single platform in an isolated manner (2023) and much of the sustainability-oriented crowdfunding literature analysed the campaign component (Böckel et al., 2021; Wehnert & Beckmann, 2023). Consequently, the research goal is to advance the understanding of the connection between platform choice regarding sustainability and the success rate of campaigns in reward-based crowdfunding. The research question can be formulated as follows:

'How is the probability of a sustainable crowdfunding project meeting its funding goal associated with being listed on a sustainability-oriented instead of a conventional platform?'

By answering this question, our research contributes to the literature in various ways. First, we study a vital element of the crowdfunding process, namely the platform, that previous studies have overlooked. Second, we connect crowdfunding studies with the literature on sustainable entrepreneurship and therefore, our paper further develops the sustainability-oriented crowdfunding domain, which is a relatively young research field (Wehnert & Beckmann, 2023).

First, several literature reviews show that despite its significance the platform component has not been the main focus of sustainability-oriented crowdfunding research (Böckel et al., 2021; Deng et al., 2022; Wehnert & Beckmann, 2023) and studies which analyse the effect of platforms on funding success seem to be limited⁵. Rey-Martí et al. (2019), for example, investigate how crowdfunding platforms build legitimacy and discuss success factors from a campaign perspective. However, in their qualitative study, the authors only include sustainability-oriented platforms. Similarly but more closely related to our research might be Hörisch's (2018) contribution, which

⁵ We used Wehnert & Beckmann's (2023) literature review to identify papers that analyse the platform component (n=20). Then, we searched for articles which study the effect of the platform on the funding success within this sample. Even though it might be argued that our paper is mainly looking at the campaign level and only combines this element with the platform component, Hörisch's (2019) study, which has a very similar focus, was found among the articles analysed by Wehnert & Beckmann (2023) in the context of platforms too. Additionally, only 10% of the literature reviewed by Böckel et al. (2021) looks at different research objects (e.g., campaign and platform) simultaneously.

uses data from two sustainability-oriented platforms to analyse success rates of campaigns listed on these marketplaces. However, even though the author compares the findings with earlier literature that studied the success rates on thematically-open platforms, Hörisch (2018) admits that it needs a comparison of success rates from specialised and generic platforms within one dataset, which is what our study aims at.

Second, we provide insights into the usability of specialised platforms, focusing on sustainability-oriented marketplaces. In addition to the study mentioned above, research on sustainability-oriented crowdfunding provides further indications to assume that it could be more fruitful for social and environmental entrepreneurs to start a campaign on marketplaces specifically set up for sustainable projects: a qualitative study showed that crowdfunding initiators pay attention to the sustainability orientation of platforms before starting a campaign since they believe that the potential backers visiting sustainability-oriented platforms will be more likely to share the initiators' values (Maehle, 2020). Additionally, an investigation of crowdfunding success on a conventional platform in combination with earlier literature suggests that marketplaces which focus on sustainability are more promising for green entrepreneurs as their projects will be easier to identify (Hörisch, 2015). From a theoretical perspective, our paper advances the sustainable entrepreneurship and crowdfunding research as the results challenge the above-mentioned assumptions by previous studies and therefore, this study makes an empirical contribution to primarily theoretically derived statements. In addition, we follow an already proposed research avenue and our study takes up the debate of crowdfunding success of sustainable projects and moves it away from the sole perspective of the campaigns' characteristics to a view which includes the respective platforms. Thus, it contributes to a more holistic view of crowdfunding.

However, answering the research question has practical implications as well. First, we aim to make recommendations to sustainable entrepreneurs considering collecting funds using reward-based crowdfunding whether it is advisable or not to start a campaign on a platform that specialises in sustainability. This seems relevant since crowdfunding can be an alternative way of accessing financial resources for a group of people who are usually less in the focus of traditional investors (Calic & Mosakowski, 2016; Cumming et al., 2024; Messeni Petruzzelli et al., 2019). Second, the results might be valuable for the platform operators, too, as it can be assumed that it is also interesting for them to understand if their efforts to set up an exclusive marketplace pay off for the target group.

To answer the research question, it seems necessary to understand which aspects can affect funding behaviour and to make assumptions on how they might change depending on the platform. To do so, we used a theoretical framework which suggests that giving behaviour is affected by at least seven different mechanisms (van Teunenbroek et al., 2023). We expanded the framework by adding the hypothetically influential crowdfunding feature of the platform and having collected data from two reward-based crowdfunding platforms operating in Germany, we compared the success rates of sustainable crowdfunding projects within one dataset. Our research model included the sustainability orientation of a project as the predictor and funding success as the outcome variable. In addition, we integrated two mediators in the form of the number of funders and the average funding amount respectively. Lastly, we added the platform component as a moderator. Our predictions were that a sustainability-orientation leads to both more funders and a higher average funding amount. We hypothesised that the first link is negatively moderated by choosing a platform specialised in sustainability while the latter is strengthened. However, a binary logistic regression analysis (LRA) revealed that in our dataset a sustainability-orientation is neither significantly advantageous nor disadvantageous. Further, conditional process analyses (CPA) did not find statistical evidence that the platform choice matters. We assume that this result might be due to the characteristics of the platforms we have chosen since backers selecting themselves to the marketplaces investigated in our study could take a sustainability-orientation for granted. Therefore, we encourage follow-up research which also takes into account the lack of generalisability of many crowdfunding studies (Dushnitsky & Fitza, 2018).

The remainder of this work is structured as follows: in Section 2, we outline the scope of our study by describing its key concepts. We then build our hypotheses (Section 3) and explain the methodology used (Section 4). Next, we present the results of the LRA and CPA in Section 5. Finally, we close the paper by providing theoretical and practical implications as well as addressing the limitations of our study and suggesting future research avenues in Section 6.

2. Context

In this section, we provide a theoretical background for both the concept of sustainable entrepreneurship (Section 2.1), the crowdfunding phenomenon with a focus on the reward-based model (Section 2.2) as well as the interplay of both research fields (Section 2.3).

2.1 Sustainable Entrepreneurship

In academia, sustainable development⁶ is frequently described as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”⁷. Although sustainability can be traced back to ecology (Soini & Birkeland, 2014) and some scholars challenge the view that the economy is part of the very foundations of sustainable development (Holden et al., 2014) while other authors integrate more than three dimensions (Seghezzeo, 2009; Spangenberg, 2004), it is common to understand sustainability as a triad encompassing environmental, social, and economic aspects (Purvis et al., 2019). According to Shepherd & Patzelt (2011), entrepreneurs who aim to reconcile these elements of sustainable development by leveraging business practices can be described as sustainable entrepreneurs. Drawing upon the definition of entrepreneurship which can be found in Venkatarman’s (1997) important contribution, Shepherd & Patzelt (2011) outline the sustainable counterpart of entrepreneurship as follows: “[s]ustainable entrepreneurship is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society” (p. 142). The authors elaborate that this definition is also linked to related concepts like ecopreneurship, social entrepreneurship, and Corporate Social Responsibility (CSR). However, sustainable entrepreneurship is not synonymous as each of these other three constructs lacks one aspect that constitutes sustainable entrepreneurship⁸, i.e. the social aspect concerning ecopreneurship, the environmental aspect regarding social entrepreneurship, or entrepreneurship in the case of CSR (Shepherd & Patzelt, 2011). Further, some authors define sustainable entrepreneurship by adding the feature of governance (e.g., Mansouri & Momtaz, 2022). However, we rely on the usual approach from the broader field of sustainability by focussing on environmental and social aspects.

⁶ “Sustainability” and “Sustainable Development” are frequently handled as synonyms (Maehle et al., 2020).

⁷ United Nations (1987). *Our Common Future*. Retrieved on 13.03.2024 from <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf> (Chapter 2, para. 1)

⁸ For a description of the differences between eco-, social and sustainable entrepreneurship we refer to Schaltegger & Wagner (2011), who “perhaps provided the clearest demarcation” (Muñoz & Cohen, 2018, p. 305).

2.2 Crowdfunding

Several descriptions of what crowdfunding encompasses can be found, however, there are scholars who argue that “no clear definition fully captures the dynamic of this phenomenon” (Hossain & Oparaocha, 2017, para. 7). This might be because, in practice, the differences are substantial, with it crossing countries, funding models and being applied in several sectors (e.g., health, art, start-ups). The result is an umbrella term that captures most, but not all, aspects. We understand crowdfunding in accordance with Mollick’s (2014) characterisation stated above as it is the most widespread (Böckel et al., 2021). Additionally, we follow the differentiation between four types, namely donation- or patronage- respectively, equity-, lending-, and reward-based crowdfunding (Hossain & Oparaocha, 2017; Mollick, 2014; Vulkan et al., 2016). The latter type is the subject of interest we are exploring in this work and broadly spoken means that funders receive a non-monetary good in the form of, for instance, a product (Ahlers et al., 2015; Mollick, 2014) or immaterial rewards like being mentioned as a contributor of a motion picture (Mollick, 2014).⁹ While equity- and lending-based crowdfunding are investment-based, donation- and reward-based crowdfunding are non-investment forms (Belleflamme et al., 2015; Hervé et al., 2019). Even though lending-based crowdfunding might have a more significant economic impact¹⁰, in this paper, we focus on reward-based crowdfunding since this model and the donation-based types are found to be among the more frequently studied ones (Böckel et al., 2021; Dinh et al., 2024), which should allow us to build on many insights from earlier literature.

2.3 Sustainability-Oriented Crowdfunding

“[R]esearch on crowdfunding and sustainability is still in its early phase” (Böckel et al., 2021, p. 450). Despite being increasingly studied (Böckel et al., 2021; Dinh et al., 2024), the domain lacks the development of specific theories and is not characterised by one overarching concept (Böckel et al., 2021). Further, Dinh et al. (2024) elaborate that the concepts of information asymmetry and signalling are most frequently applied in the

⁹ It may be important to highlight that there seem to be different understandings of whether crowdfunding which does not include “pre-selling” (Mollick, 2014, p. 3; Vulkan et al., 2016, p. 37) of products is reward-based crowdfunding or basically donation-/patronage-based. While e.g., Mollick (2014) identifies pre-selling as one form of reward-based crowdfunding, Tomczak & Brem (2013) cite Burkett (2011) when stating that rewards like signed t-shirts “are also sometimes referred to as patronage perks” (p. 351).

¹⁰ Debt-based i.e., lending-based crowdfunding was found to claim the largest market share. Polaris Market Research (2022). Crowdfunding Market Share, Size, Trends, Industry Analysis Report, By Type (Equity-based, Debt-based, and Others); By Application; By Region; Segment Forecast, 2022-2030 Retrieved on 05.05.2024 from <https://www.polarismarketresearch.com/industry-analysis/crowdfunding-market>

context of reward-based crowdfunding whereas self-determination theory is typically used in research on the donation-based type. This underscores the absence of tailor-made theoretical approaches.

Thematically, much research is concerned with the success factors of crowdfunding, and the majority of these studies measure crowdfunding success from a financial perspective (i.e., did the campaign reach the target amount) while less attention goes to alternative operationalisations of success, like the number of supporters (Böckel et al., 2021)¹¹. Furthermore, as already mentioned in Section 1, there seems to be a bias towards the campaign component.

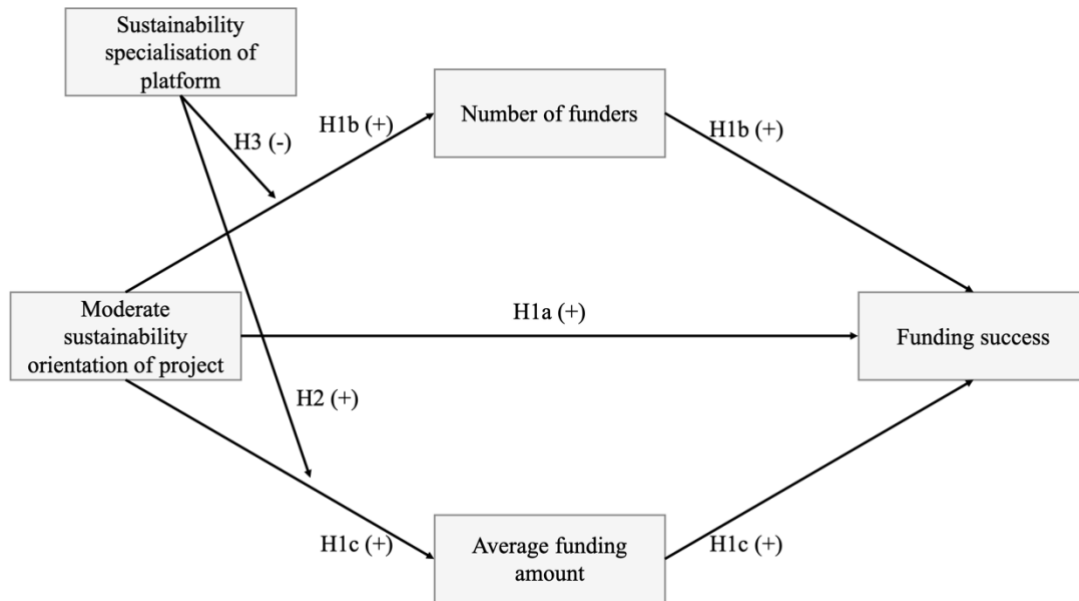
Regarding the dimension of sustainability analysed in studies on sustainability-oriented crowdfunding, Böckel et al. (2021) found that most papers focus on the social dimension of sustainability. Only 13% of the articles solely deal with ecological sustainability, and the same number simultaneously look at both social and environmental sustainability (Böckel et al., 2021). As we will describe in Section 3.1, this imbalance might lead to diverging results when studying crowdfunding success and therefore, it may not be surprising that there is no consensus on whether a sustainability orientation is beneficial or not (Roma et al., 2023).

3. Hypotheses

In Section 3.1 we discuss how a project's sustainability orientation could influence giving behaviour and funding success respectively. In addition, since we assume that choosing a sustainability-oriented instead of a conventional platform might impact giving behaviour too, we provide possible explanations for a positive relationship between a campaign being listed on a sustainability-oriented platform and funding success in Section 3.2. Lastly, we debate why there might be a negative relationship (Section 3.3). While the hypotheses advanced in Section 3.1 cannot be considered novel since very similar ones have already been answered, the hypotheses developed in Section 3.2 and 3.3. constitute the core of our paper.

¹¹ As Böckel et al. (2021) state, the number of supporters can be used to measure marketing success.

Figure 1: Hypotheses Summary



Note. This model is adapted from Hörisch & Tenner (2020). The moderating effect of the sustainability specialisation of the platform was added to the original model.

3.1 Sustainability Orientation and Funding Success

Scholars have frequently researched the link between a sustainability orientation and funding success (Böckel et al., 2021) but according to Roma et al. (2023), there are two opposing streams of literature: the first group of scholars believes that crowdfunding can serve as a viable alternative or supplement to traditional capital sources and as reported by Böckel et al. (2021) many authors found a positive association between a project's sustainability orientation and success. On the other hand, the second group of researchers argues that a sustainability orientation is not considerably beneficial for crowdfunding success, instead it might even be a hindrance (Roma et al., 2023). In addition, a study suggests that the effect crowdfunding success factors varies depending on the funding goal (Pinkow & Emmerich, 2021). As Pinkow & Emmerich (2021) show, projects with a sustainability-orientation¹² are more likely to be funded successfully only when the target is exceeding a certain threshold.

¹² The authors controlled for categories which are likely to be connected to socially or environmentally oriented projects. This approach is similar to Hörisch (2015) and has the downside that many sustainability-oriented projects might not be captured as they belong to another category. For instance, a green tech project might be assigned to the Technology instead of the Environment category or a fair fashion project to the Fashion instead of Social Business category. In our opinion, the usefulness of the proxy for a sustainability-orientation is limited and the results should be interpreted with caution. To be fair, however, Pinkow & Emmerich's (2021) article does not focus on sustainability-oriented crowdfunding and thus, for the paper itself, the operationalisation is not much of a problem.

Irrespective of the funding goal, we assume that the reason for the different results mentioned above could be twofold, and we discuss explanations for the opposing outcomes regarding the direction of the effect (positive versus negative) below.

First, the inconclusive findings might be due to the operationalisation of success (Deng et al., 2022). While it seems that many studies measure success at least as a binary variable, which indicates whether the funding goal was reached or missed, other authors include, for instance, the level by which the funding goal has been reached or missed (e.g., Hörisch, 2015). It looks like only a handful of scholars use a more fine-tuned approach by additionally measuring the average funding amount and the number of funders (e.g., Hörisch & Tenner, 2020; Pitschner & Pitschner-Finn, 2014; van Teunenbroek & Bekkers, 2020). Ignoring these additional operationalisations might lead to different results as previous studies have shown that, for example, social information might increase the average donation amount but is not associated with the number of funders (van Teunenbroek & Bekkers, 2020). Similarly, Pitscher & Pitscher-Finn (2014) report that non-profit campaigns receive higher average funding amounts but are backed by fewer funders. Moreover, in the context of investment-based crowdfunding, it was found that an environmental orientation is associated with an increased number of funders but does not correlate with the average funding amount (Hörisch & Tenner, 2020). We follow these approaches by making predictions regarding the average funding amount and the total number of funders. In this, we use a more nuanced approach to crowdfunding success.

Second, it could be due to the operationalisation of the sustainability orientation. In the context of measuring sustainability in equity-based crowdfunding, Mansouri & Momtaz (2022) criticise that “a unified framework is missing so far from the literature”¹³. Indeed, one paper follows the idea of making use of two academic sources and a glossary dealing with environmental terms in order to collect phrases which serve as sustainability indicators (Chan et al., 2021) while another study uses coding instructions built upon the work of other scholars (Calic & Mosakowski, 2016). Additionally, Hörisch (2015), for instance, supposes that projects which belong to the self-assigned category “environment” show an environmental orientation. Even though each of these approaches might have certain advantages, comparing those papers’ results is limited.

¹³ Even though Mansouri & Momtaz (2022) discuss “ESG properties” and equity-based crowdfunding they still refer to authors who measured the sustainability or environmental orientation respectively and one author who researched reward-based crowdfunding (p. 6).

Further, as mentioned in Section 2.3, there is a bias towards the social dimension, and research looking at both environmental and social sustainability simultaneously is rare. This could influence results, as it is suggested that consumers notice differences between the two concepts (Catlin et al., 2017). Moreover, some crowdfunding studies report differences in the success of socially- compared to environmentally-oriented campaigns (e.g., Calic & Mosakowski, 2016; Hörisch & Tenner, 2020)¹⁴. In addition, many scholars measure the sustainability orientation as a binary construct. Thus, as with the operationalisation of crowdfunding success, it is too simple to capture the complexity of sustainability orientations. In two distinct studies which looked at different levels of a sustainability orientation, it was shown that a moderate level is positively associated with successful funding, but strongly emphasizing a sustainability orientation is linked to a lower probability of success (Defazio et al., 2021; von Selasinsky & Lutz, 2021). Consequently, measuring the sustainability orientation of projects as a binary variable could also lead to blurred results because it might include negative and positive effects.

To the best of our knowledge, only one study includes all the above-mentioned operationalisations. In addition to measuring the sustainability orientation of projects as a continuous variable, von Selasinsky & Lutz (2021) look at whether a project met its funding goal, the total amount of pledges, and the number of funders. A moderate social and environmental orientation increased the likelihood of meeting the funding goal, the amount raised, and the number of backers (von Selasinsky & Lutz, 2021).

Even though we argue that due to the many contributions and especially the two studies mentioned above, there is no need to test the association between a sustainability orientation and funding success over and over again, in our paper it seems a necessary step as the core hypotheses (H2 and H3) are built on this very link. Hence, to make predictions about whether a moderate sustainability orientation is positively associated with funding success, we follow Defazio et al.'s (2021) approach and used framing theory. Based on earlier literature, the authors define framing as “the selection, packaging and organization of information about an object (e.g., a product, a service, a problem, a cause, or a situation) that enables an audience to interpret and make sense of it” (Defazio et al., 2021, p. 359). In economics and management, green or social framing is frequently linked to positive results (Defazio et al., 2021) including, for example, improved brand attitude (Olsen et al., 2014). However, summarising existing

¹⁴ Hörisch & Tenner (2020) studied investment-based crowdfunding.

studies, Defazio et al. state that overemphasizing a certain frame can reduce its effect. Thus, with reference to Defazio et al. (2021) as well as von Selasinsky & Lutz (2021) we predict the following:

H1a: A moderate sustainability orientation of a project, in the form of green or social framing conveyed via the project description, is positively associated with an increased probability of funding success.

Informed by the hypotheses and also the supporting results of von Selasinsky & Lutz's (2021) study, we further specify our prediction as:

H1b: The association between a project's moderate sustainability orientation and the probability of funding success is positively mediated by the number of funders.

And:

H1c: The association between a project's moderate sustainability orientation and the probability of funding success is positively mediated by the average funding amount.

3.2 Positive Platform Effects

So far, most sustainability-oriented crowdfunding literature has researched one specific aspect of crowdfunding (e.g., funders or campaigns) separately and predominantly neglected the platform feature (Böckel et al., 2021). Therefore, it may not be surprising that even researchers who analysed almost 200 studies dealing with donation- and reward-based crowdfunding without limiting them to sustainability do not find the platform¹⁵ but the project creator, social information, project description, and rewards to be influential aspects concerning donation behaviour (van Teunenbroek et al., 2023).

This section is informed by the above-mentioned framework (van Teunenbroek et al., 2023).

Perceived Project Quality

Donors are often influenced by perceived quality signals, for instance, in the form of social information (van Teunenbroek et al., 2021). This applies to the crowdfunding context as well (Sasaki, 2019; van Teunenbroek & Bekkers, 2020). If donation amounts to projects are high, individuals perceive the project as higher quality (Smith et al.,

¹⁵ It seems noteworthy to highlight that even though papers focussing on platforms or initiators were excluded, the project creator still appeared as influential factor, showing that deselecting these specific articles is unlikely to be a reason for platforms not being discussed as feature.

2012). Further, Liu et al. (2018) found that the quality of a project's content is positively associated with the perceived credibility of that project and credibility is linked to the intention to donate. These studies show that project characteristics play an important role in influencing funding behaviour. Choosing a sustainability-oriented crowdfunding platform that pre-selects campaigns based on their project focus might increase giving behaviour via perceived project quality: it could signal that a project is of higher quality since it was accepted on a specialised platform. Perceiving the project of higher quality could be explained by the project making it through the selection process of a crowdfunding platform, which may indicate to potential donors that the project is meeting a certain standard. This argument is similar but not identical to so-called "staff picks" and endorsement in reward-based crowdfunding (Thies et al., 2019). It goes in the same direction as Hörisch (2015) who, concerning the fact that a non-profit status can be associated with higher success rates, states that "other signals or verifications [...] might embody similar effects" (p. 643). Because donors seek for utility-maximisation and low-quality projects can add less to maximising utility than ones of better quality, perceived project quality is expected to influence giving behaviour (van Teunenbroek et al., 2020, 2023). This was confirmed by studies which have shown that quality signals are associated with a higher probability of funding success (Huang et al., 2023; Yu & Xiao, 2023). Based on this, we predict that funders prefer a project listed on a platform with certain entry requirements over one that can be found on a platform without any perceived quality threshold.

Identify with Community

Picking a sustainability-oriented crowdfunding platform could increase giving behaviour via identification with a community. We expect this due to the assumption that "different crowdfunding platforms may have different loose ideologies, depending on the mission of the platform and the values and beliefs of the individuals frequenting the platform" (Testa et al., 2020, p. 532) and the fact that the composition of the community which a crowdfunding campaign taps can be central when it comes to crowdfunding success (Josefy et al., 2017). It was found that social aspects are linked to funding intention (Ahn, 2023) and "connectedness to other donors" was also identified as being associated with higher pledges (Ein-Gar, 2018). Therefore, it seems reasonable to assume that sustainability-oriented campaigns could be more successful on platforms characterised by a sustainability-oriented community. More concretely, we expect the average funding amount to be higher since a platform specialised in sustainability can

“foster the self-selection of specific backers” (Wehnert & Beckmann, 2023, p. 3108) which could increase the connectedness mentioned above.

Transaction and Search Costs

We expect that selecting a sustainability-oriented crowdfunding platform might influence giving behaviour via the reduction of transaction and search costs for prospective funders. This could be explained due to the donors’ ambition to maximise utility (see above). Because of this aspiration, it can be assumed that backers try to keep the costs associated with pledging in crowdfunding as low as possible. However, “uncertainty around offerings’ quality implies significant transaction costs”(Dushnitsky et al., 2022, p. 588) and indeed, crowdfunding is often characterised by information asymmetries (Agrawal et al., 2014; Thies et al., 2019). Nevertheless, a certain quality standard could reduce transaction costs (Dushnitsky et al., 2022) and this standard could be achieved by the platform pre-selecting crowdfunding campaigns (see above). At the same time and despite already being lower due to the internet (Agrawal et al., 2014), platforms which are more homogenous in terms of what is valued by the prospective backers can further decrease search costs for future funders (Dushnitsky et al., 2022). Consequently, we believe that crowdfunding platforms that are characterised by “green exclusivity”, i.e., only sustainability-oriented campaigns can be found there, should be more attractive for prospective donors, who want to give to social and green campaigns.

Accordingly, we predict the following:

H2: The sustainability specialisation of a platform moderates (strengthens) the positive association between the project’s sustainability orientation and the average funding amount.

3.3 Negative Platform Effects

Increased Competition

Conversely, choosing a sustainability-oriented crowdfunding platform could also be associated with a lower probability of funding success. For example, deciding for a platform which exclusively allows green and/or social campaigns, might be negatively correlated with funding success via increased competition. We base this assumption on the fact that crowdfunding marketplaces are competitive environments and it was found that the number of competitors correlates negatively with reaching the funding target (Chen, 2021). Even though it seems that conventional crowdfunding platforms usually

house more campaigns at the same time than their sustainability-oriented counterparts, we argue that the density of campaigns which address similar values (i.e. sustainability) could be higher on sustainability-oriented compared to conventional platforms. Therefore, green and social campaigns might have more direct competitors on the first platform type even though the total number of campaigns is higher on the latter. This is similar to Defazio et al.'s (2021) prediction that the number of projects on a platform positively moderates the positive link between a social orientation and funding success because socially-oriented projects positively stand out from the crowd. The authors found support for this proposed association.

Selective Donor Pool

In addition to the increased competition, we argue that picking a sustainability-oriented crowdfunding platform may be negatively connected with funding success via the reduction of the pool of potential donors initiators can tap. Based on Section 3.2, we predict that donors who value sustainability might prefer sustainability-oriented platforms which could result in a higher density of those people on these platforms. While such a selection might be beneficial, it could also limit the donor pool as more conventional givers may be crowded out. Those potential funders might only browse through campaigns listed on conventional crowdfunding platforms but would still give to sustainability-oriented campaigns. Therefore, green exclusivity could result in a selective donor pool which might be smaller than on thematically open platforms. This limitation might translate into a smaller number of actual funders and could result in an adverse effect for crowdfunding initiators. Additionally, Belleflamme et al. (2015) note that “funders tend to prefer platforms with a larger number of campaigns” (p. 15). Even though there might be reasons to assume that platforms with fewer fundraisers could be favoured by potential backers, the authors believe that when funders can fathom out the likeliness of success of projects, they choose marketplaces with a broader choice (Belleflamme et al., 2015). As it seems reasonable to assume that average generic crowdfunding platforms house more projects than specific ones, we believe with reference to Belleflamme et al. (2015) that thematically open marketplaces would be deemed a better choice from the perspective of prospective funders.

Hence, we propose the following hypothesis:

H3: The sustainability specialisation of a platform moderates (weakens) the positive association between the project's sustainability orientation and the number of funders.

4. Methodology

This section is organised as follows: First, we briefly describe the data sources, i.e. the two crowdfunding platforms analysed here (Section 4.1). Second, we operationalise the outcome, predictor and control variables (Section 4.2) and third, we explain how the data was collected (Section 4.3). Lastly, we elaborate on the statistical approaches used (Section 4.4).

4.1 Data Sources

We collected data from two reward-based crowdfunding platforms that differ regarding their sustainability orientation: Startnext and EcoCrowd. In our context, the key difference between EcoCrowd and Startnext is that EcoCrowd does not allow conventional campaigns, while Startnext does.

Startnext, recognised as the leading crowdfunding platform in Germany measured by funding volume¹⁶, was launched in 2010 and served several scholars as a platform to study (e.g. Crosetto & Regner, 2018; Pinkow & Emmerich, 2021). The platform's guiding principle is called "The courageous shape the future" which might indicate an entrepreneurial spirit, and several values are mentioned: responsibility, diversity, creativity, transparency, and fun.¹⁷ Interestingly, even though Startnext does not exclude conventional projects, along with creativity and courage, it highlights sustainable business ethics in its manifesto¹⁸ and some project categories are dedicated to sustainable projects (e.g., Social Business). In the same vein, a search option allows filtering sustainability-oriented campaigns from conventional ones based on the United Nation's Sustainable Development Goals.¹⁹

EcoCrowd was founded in 2014²⁰ and since then has sometimes been subject of academic research or was at least mentioned (e.g., Bento et al., 2019; Corsini et al., 2024; Hörisch, 2018). The name might suggest that the platform is geared towards ecopreneurship but the guidelines are quite broad. It is distinguished between "added value for the environment" and which is referred to as "output" and the "resources

¹⁶ Fuer-Gruender.de (2017). Crowdfinanzierung in Deutschland. Retrieved on 13.04.2024 from https://www.fuer-gruender.de/fileadmin/mediapool/Publikation/Crowdfinanzierung_2016-Fuer-Gruender.de-Dentons.pdf

¹⁷ Startnext (n.d.). *About Startnext*. Retrieved on 20.06.2024 from <https://www.startnext.com/about/startnext.html?newLanguage=en>

¹⁸ Startnext (n.d.). *Manifest*. Retrieved on 20.06.2024 from <https://www.startnext.com/about/manifest.html>

¹⁹ Startnext (n.d.). *Nachhaltigkeitsziele*. Retrieved on 20.06.2024 from <https://www.startnext.com/hilfe/handbuch/17-ziele.html>

²⁰ EcoCrowd (n.d.). *The platform*. Retrieved on 13.04.2024 from <https://www.ecocrowd.de/the-platform/>

used” called “input”. While many areas/fields which are to be protected or improved as the project’s output are primarily part of the idea of the environmental dimension of sustainability (e.g., climate, animals and plants or soil, water, air), there are also aspects which refer more to the social pillar (e.g., human or real assets and cultural assets). The same applies to the resources or input respectively.²¹

The selected data sources seem appropriate for various reasons. First, both platforms exist for a relatively long time; therefore, a sufficient number of projects has been funded, allowing statistical tests. Second, EcoCrowd and Startnext both operate in Germany, which further improves comparability, because it has been shown, for example, that the effect of a sustainability orientation varies across different countries (Hörisch & Tenner, 2020).

4.2 Measures

This section illuminates the outcome variable *Success* and the mediators, the predictor variables including the moderator, and the control variables.

4.2.1 Outcome Variable and Mediators

As already mentioned, our outcome variable is *Success*. Concerning the operationalisation, it must be noted that EcoCrowd, allows the project creators to keep all the money received regardless of the total amount collected, i.e., it follows a flexible funding approach²² also called “keep-it-all” principle (Bi et al., 2019). In addition to that model, Startnext allows campaign initiators to choose the “all-or-nothing” principle (Pinkow & Emmerich, 2021) which means that the money pledged can only be received by the project creators if the funding goal is reached (Bi et al., 2019). Even though it is argued that “the logic behind both mechanisms (i.e. fixed and flexible funding) differs substantially” (Hörisch, 2015, p. 641), project creators still state a funding goal, which can be used as a proxy for when to judge funding as successful. Further, in accordance to Hörisch (2015) it is controlled for the funding principle (see Section 4.2.3).

Building on earlier research by Pitschner & Pitschner-Finn (2014), the outcome variable, i.e., *Success*, is therefore, a dummy variable which takes the value 0 if the funding goal is missed or 1 if it is reached. It is important to highlight, however, that projects on EcoCrowd list several goals, so-called stage goals. When the first stage goal

²¹ EcoCrowd (n.d.). *Guidelines for project evaluation*. Retrieved on 13.04.2024 from <https://www.ecocrowd.de/guidelines-for-project-evaluation/>

²² EcoCrowd (n.d.). *How does EcoCrowd work?* Retrieved on 14.04.2024 from <https://www.ecocrowd.de/how-does-ecocrowd-work/>

is reached, the next one will be stated as the funding goal. The project overview page, which lists campaigns in a grid view, only shows the next stage goal but the overall goal can be calculated by adding up the different stage goals. Depending on whether success is measured as reaching the first stage or the overall goal, the success rates vary substantially. We argue that the first stage goal is not a sufficient representation of success as we assume that only a fraction of projects could be realised with the financial means attached to the first goal. Nevertheless, we measured success alternatively as reaching the first stage goal (*Success2*). The results can be found in Appendix D.

Additionally, we follow Hörisch & Tenner's (2020) approach by adding two mediators in the form of the number of funders of a project (*Funders*) and the average funding amount (*AvAmount*). By applying these additional quantifications, we also react to the deficiencies of the dominant approach to measure success (see Section 2.3).

4.2.2 Predictor Variables and Moderator

Sustainability Orientation of Projects

As shown in Section 3.1, scholars researching crowdfunding employ different approaches to operationalise the sustainability orientation of campaigns. Due to the fact that authors found differences in the association between funding success and a sustainability-orientation depending on the level of the latter (Defazio et al., 2021; von Selasinsky & Lutz, 2021), we decided to quantify the sustainability orientation too and followed the proposal of Mansouri & Momtaz (2022) who developed a machine learning tool and made it available to the general public.²³ The application generates Environmental, Social, Governance (ESG) ratings based on text data, which can be pasted into the tool's input box. At a first glance, the tool does not look suitable for the context of reward-based crowdfunding because compared to equity-based crowdfunding, the reward-based model seems to be characterised by less information provided from the funder's side.²⁴ However, it can still tell whether a project description contains comparably many sustainability-related terms or not. We therefore decided to use the tool to determine the environmental and social score for the different crowdfunding projects. The dictionaries were set up by Mansouri & Momtaz (2022) based on seed words retrieved from Financial Times articles and a subsequent machine-learning approach to collect related terms.

²³ <https://www.sustainableentrepreneurship.org>

²⁴ While start-ups may provide pitch decks or white papers on equity-based crowdfunding platforms, reward-based crowdfunding campaigns seem to offer significantly shorter descriptions.

Using this tool allows us to capture if a project shows a social and environmental orientation at the same time. Additionally, both orientations can be weaker or stronger, i.e. they can take several values. Thus, we operationalise sustainability similar to Defazio et al. (2021) as the frequency of social and/or environmental clues in the project description.²⁵ To do so, we collected the heading and the full project description. Then, we removed captions or other elements referring to pictures to avoid elaborations on pictures influencing the results. As a next step, the project descriptions were translated from German into English using the Microsoft Translator service²⁶. Finally, the text was pasted to the application mentioned above and the scores were obtained.

Because Defazio et al. (2021) hypothesised that a “limited (but positive)” sustainability orientation²⁷ as measured by a small number of sustainability signals is positively associated with funding success (p. 361), we followed their approach of organising the variables measuring social and environmental orientation as a set of dummies. These dummies represent one quartile of the respective scores each and are called *S_SO*, *M_SO*, *L_SO*, and *XL_SO* if the social score is assigned to the first, second, third or fourth quartile respectively. The same applies to the variables measuring the environmental score.²⁸

By incorporating the environmental and the social dimension within one study, we respond to the fact that research often included only one (see Section 2.3). While scholars have found differences between the two dimensions in investment-based crowdfunding (Hörisch & Tenner, 2020) and also concerning specific categories (Calic & Mosakowski, 2016), we do not make predictions based on differences the social and environmental orientation and only explore possible dissimilarities.

Sustainability Orientation of the Platform

²⁵ The scores calculated by Mansouri & Momtaz’s (2022) tool are normalised according to the lengths of the respective word list. Hence, we believe that this approach is not exactly the same like Defazio et al.’s (2021) but might even be more accurate.

²⁶ Please note that due to the number of projects, it was not possible to check each description for an accurate translation. However, as the algorithm used to determine the scores searches for keywords, we do not consider it problematic when the meaning of a sentence is not properly caught as long as most words were translated correctly.

²⁷ Even though Defazio et al. (2021) call it “pro-social framing” they still include concepts which are related to our understanding of environmental sustainability.

²⁸ Please note, that we are mainly interested in the variables representing a low frequency of social or environmental cues, as these were found to be positively related to success (Defazio et al., 2021), hence *M_*, *L_*, *XL_SO/EO* are technically control variables.

The moderator in our analysis is called *Platform*. It is a binary variable taking a 1 for campaigns launched on a platform which exclusively lists sustainability-oriented campaigns (i.e., EcoCrowd) and a 0 for projects proposed on thematically open platforms (i.e., Startnext).

4.2.3 Control Variables

Informed by earlier literature, Bono & McNamara (2011) put forward criteria for adding control variables. Based on these principles, we set up the following 7 controls.

First, Pinkow & Emmerich (2021) summarise existing studies when stating that “[d]espite the often identified negative impact [...], the funding goal [...] may also have a positive impact on project success” (p. 95). We are not interested in the direction of this effect but integrate the funding goal as a control variable. As already mentioned, EcoCrowd projects feature several targets. The overall target, i.e., the stage goals added up, is measured by the variable *Target*. In analogy to the *Success* variable, the first stage goal is expressed as *Target2*.

Second, updates were found to be significantly associated with crowdfunding success (Hörisch, 2018; Mollick, 2014). Mollick (2014) measured this variable somewhat differently than Hörisch (2018) as the former includes a time-frame of three days while the latter only looked whether updates were provided or not. We adjusted this measure slightly by operationalising *Updates* as a continuous variable instead of a dichotomous one.

Third, comments were found to be associated with funding success too (Mollick, 2014). We therefore control for the number of comments (variable: *Comments*) but due to the data collection procedure do not include the timing of comments.

Fourth, Hörisch (2015) argues that the duration of projects may influence the likeliness of successful funding. To be more specific, he assumes and finds a positive relationship between funding duration and likeliness of success. This contradicts Mollick’s (2014) findings whose regression shows a significant and negative relationship. As a possible reason the author states that backers might assume that project creators who run projects with a high duration are not very confident. Therefore, we control for *Duration* as well.

Fifth, Mollick (2014) found that the inclusion of videos can influence the project success as videos can be understood as a quality signal. This is supported by Hörisch’s (2015) work. Conversely, Hörisch (2018) found a negative effect but only at a p-value <

0.1. We therefore control for this possible effect, considering if the project campaign features a video or not in the form of the variable *Video*.

Sixth, as stated above, Startnext allows to choose from two funding principles (KiA or AoN) while projects on EcoCrowd are restricted to the KiA model. It was demonstrated empirically, that it can make a difference concerning the probability of success whether a platform follows the one or the other mechanism (Cumming et al., 2020). Therefore, with reference to Hörisch (2015) we controlled for the funding principle (variable: *Princ*).

Seventh and last, existing literature suggests that despite the internet-based nature of crowdfunding geography still matters (Gallemore et al., 2019; Giudici et al., 2018). Thus, we added the variable *Location* to our controls.

A table displaying an overview of all variables including their operationalisation can be found in Appendix A.

4.3 Data Collection

The data were extracted in April and May 2024 by combining a web crawling browser extension called *Instant Data Scraper*²⁹ and a subsequent manual collection of the information the algorithm did not gather.³⁰

More specifically, we first used the data scraper to collect all projects listed on the EcoCrowd website. The scraper was especially useful because it collected the names and URLs of projects even when the EcoCrowd website did not display them correctly.³¹ Second, we inspected the dataset, removed campaigns that were still running and manually gathered the missing information for the first 100 projects from the modified dataset. On EcoCrowd it is not possible to determine the duration of a campaign once it has finished. We therefore needed to gather these data utilising an alternative approach which is based on estimations and used the *Wayback Machine*³² to find an archived version of the EcoCrowd project overview page³³. From there we went “back in time” until the oldest project from the sample appeared for the first time on a snapshot. From that point we moved snapshot-by-snapshot further in the direction of the

²⁹ <https://webrobots.io/instantdata/>

³⁰ Appendix B provides a tabulated overview of how we collected which information.

³¹ For some reasons, most of the projects were “hidden”, i.e. the boxes containing the title and a photo were missing but the hyperlinks turned out to be still clickable and could be retrieved by the crawler despite not being visible.

³² <http://web.archive.org>

³³ The Wayback Machine does not include captures of the project-specific pages.

present and noted down the days left indicated for a project from the sample once it showed up on a capture. Because the Wayback Machine captured the EcoCrowd project overview quite frequently, we consider this approach as good enough to retrieve an approximate value for the duration.

The data from Startnext were gathered in a very similar way but we did not need to utilise the Wayback Machine. Before using the data scraper, we disabled all filter options and set the order of the projects to ‘newest’, which should result in a chronological listing. Then, we deleted campaigns from the dataset that were still running. Additionally, some campaigns did not state a funding goal and we removed them as well. One campaign was deleted from Startnext before all relevant information could be collected and therefore, needed to be removed too. We stopped the data collection after the same number of projects like on EcoCrowd were gathered ($n = 100$).

The final dataset comprises a total of 200 projects, 50% being from EcoCrowd and the other 50% from Startnext.³⁴

4.4 Binary Logistic Regression and Conditional Process Analyses

We used the dataset to run several binary LRA and CPA in IBM SPSS Statistics Version 29.0.2.0. This section presents the steps taken for only one of those but an overview containing alternative analyses can be found in Appendix D. Prior to the analysis we took the following steps as described by Field (2018):

First, we tested for linearity. We transformed all variables using the natural logarithm and created interaction terms with the original and the logged version of the respective variable. Then we added both to the same block and ran a binary LRA. We assessed linearity based on whether the interaction terms were significant or not. The interaction between the funding goal and its logged form as well as between number of comments and the respective log turned out to be significant and therefore, we used the square root transformation for both variables. Since interaction term of the square root of the number of comments and its logged form was still significant, we transformed this variable again, using the logarithm to the base of 10.³⁵

³⁴ Please note that the number of cases for the analysis which uses the alternative operationalisation of success (*Success2*), comprises of 100 Startnext but only 99 EcoCrowd projects because one case needed to be deleted from the dataset due to missing data concerning the first stage goal.

³⁵ A detailed overview and the syntax are provided in Appendix E.

Second, we built the model and chose the best fit. To do so, the predictor variables and the control variables identified in Section 4.2.3 were added in sperate blocks, which generated various models. We assessed these models based on the omnibus test of model coefficients and chose the model with the best fit.³⁶

Finally, we ran the analysis using the percentile bootstrap option in SPSS. The bootstrap samples were set to the default of 1,000, “which is a reasonable number” (Field, 2018, p. 266).

After the results were obtained, we assessed the residuals. Quite many cases exceeded several thresholds, indicating, among other things, that our dataset might include influential cases. We inspected the respective cases but did not find no valid reason to exclude cases from the analysis.³⁷ Nevertheless, we ran three other analyses with a modified dataset that does not include outliers³⁸, which produced comparable results (see Appendix D).

Lastly, we tested for collinearity. Neither the tolerance values nor the VIF values indicated problems.³⁹

To test H1b-c and H2-3, we ran analyses using the version 4.2 of the PROCESS macro for SPSS (Hayes, 2013). We used the PROCESS Model 4 for a simple and parallel mediation and the Model 7 for the CPA, i.e. the complete model (see Figure 1). We further used a heteroscedasticity-consistent inference (Cribari-Neto) and percentile bootstrapping with 10,000⁴⁰ samples to account for potential non-normal distributions. We did not use mean-centring since a meaningful interpretation is possible without it because values of zero are realistic for both the predictor and the moderator variable.

5. Results

Comparing the platforms, we can observe that on Startnext, more projects reached the predetermined funding goal (48% vs 9% or 43.4%⁴¹). They also raised more money (*Mdn* = €1606.50 vs 1212.50) and attracted more funders (*Mdn* = 29.50 vs 17.00).

Interestingly, the funders donated slightly more on EcoCrowd (*Mdn* = €58.59 vs

³⁶ An overview of the different steps taken and the excluded variables can be found in Appendix F.

³⁷ More detail on the residuals is provided in Appendix G.

³⁸ Outliers were defined 1) in accordance with Kulich et al. (2011), 2) based on the obtained residuals, and 3) -since we acknowledge the criticism by Aguinis et al. (2013)- both.

³⁹ The respective numbers are listed in Appendix I.

⁴⁰ Hayes (2013) writes that “[g]enerally speaking, 5,000 to 10,000 bootstrap samples is sufficient in most applications” (p. 111).

⁴¹ 9% refer to *Success* and 43.4% to *Success2*. *N* for *Success2* equals 99.

€52.27). Concerning the sustainability scores, the median social score is over 1.6 times higher for projects on EcoCrowd ($Mdn = 15.00$ vs 9.00) but the difference between the median environmental scores is even more striking ($Mdn = 16.00$ vs $.00$).⁴²

Table 1 shows the descriptives for the dataset we used in this study.⁴³

Table 1: Data Description by Platform

	Startnext	EcoCrowd
Successful projects (in percent)	48	9
		43 ^a
<i>M</i> amount raised (in euro)	3757.4 (5493.32)	3125.18 (5072.23)
<i>M</i> number of funders	50.52 (69.29)	35.63 (54.72)
<i>M</i> amount raised / funders (in euro)	64.80 (57.57)	74.13 (76.9)
<i>M</i> funding goal (in euro)	11073.26 (26987.86)	18062.19 (20256.00)
		3904.74 (5084.40) ^a
<i>Mdn</i> social score	9.00	15.00
<i>Mdn</i> environmental score	.00	16.00

^a Funding goal = first stage goal

To test H1, which predicted that a moderate social or environmental sustainability orientation is positively associated with funding success, we built three several models. Table 2 shows a summary of the different models including the respective variables' coefficients and several measures for the model fit.

As hypothesised, a moderate social orientation, i.e. the score belongs to the first quartile, turned out to be a significant predictor (2.45) in Model 3, but since the CI includes zero, we cannot be sure that there is a real positive relationship. Remarkably, a very high social orientation (4th quartile) was found to be positively associated with the probability of funding success too. Still, the CI includes zero as well.

In Model 3 an environmental orientation was not found to be a significant predictor, regardless of the score. Model 2, however, shows a negative and significant association for all environmental scores with a very high environmental association being the

⁴² A more detailed summary of the sustainability scores can be found in Appendix H.

⁴³ Table 1 provides a summary. More descriptives can be found in Appendix C.

strongest predictor (-2.11). While the CI for the moderate environmental orientation contains zero, the other three CIs do not include zero. Nevertheless, Model 2 lacks important controls and thus, is likely to be subject to omitted variable bias (see Wilms et al., 2021 for a discussion on this topic).

Concerning the control variables in Model 3, we omitted the duration of a campaign, the variable assessing whether a campaign features a video or not, and the location because these were not found to significantly improve the model.⁴⁴ The remaining covariates were all found to be significant and none of the CIs includes zero. The funding goal is negatively associated with funding success, while all the other controls show positive associations.

⁴⁴ A more detailed description why these variables were excluded can be found in Appendix F.

Table 2: Coefficients and Fit of Model 1-3 (Success; $n=200$)

	Model 1			Model 2			Model 3		
	b	se	CI	b	se	CI	b	se	CI
Soc. Orient. (1 st Q.)	.94	4.73	LL -0.67 UL 21.49	.83	4.89	LL -0.96 UL 21.24	2.45*	4.81	LL -0.33 UL 22.17
Soc. Orient. (2 nd Q.)	-.21	4.72	LL -1.85 UL 20.35	-.01	4.89	LL -1.77 UL 20.42	1.26	4.8	LL -2.03 UL 20.85
Soc. Orient. (3 rd Q.)	-.53	4.72	LL -2.2 UL 20.04	-.02	4.88	LL -1.83 UL 20.28	1.56	4.83	LL -1.14 UL 21.53
Soc. Orient. (4 th Q.)	-.92	4.75	LL -2.72 UL 19.6	.03	4.93	LL -2.17 UL 20.40	2.65*	4.89	LL -0.61 UL 22.63
Env. Orient. (1 st Q.)				-.13**	.47	LL -1.12 UL .76	-.52	1.01	LL -3.00 UL 1.02
Env. Orient. (2 nd Q.)				-1.88**	3.19	LL -19.80 UL -0.90	-.31	3.28	LL -16.80 UL 2.28
Env. Orient. (3 rd Q.)				-1.85**	2.42	LL -3.73 UL -0.73	1.26	3.43	LL -7.69 UL 5.59
Env. Orient. (4 th Q.)				-2.11***	2.28	LL -4.00 UL -1.1	.05	3.84	LL -9.74 UL 5.30
Funding goal							-.04***	.02	LL -1.0 UL -0.3
Updates							.4**	.31	LL .12 UL 1.22
Comments							7.72***	4.46	LL 5.58 UL 20.23
Funding principle							2.54***	1.91	LL 1.59 UL 5.92
Constant	-.69	4.71	LL -21.20 UL .69	-.20	4.88	LL -20.67 UL 1.47	-3.01	4.84	LL -22.65 UL .09
Model χ^2 (df)	15.62(4)**			41.37(8)***			136.57(12)***		
R ² _L	.07			.17			.57		
R ² _{CS}	.08			.19			.50		
R ² _N	.11			.27			.71		

Note. Bootstrap results are based on 1,000 bootstrap samples. *** $p < .001$; ** $p < .01$; * $p < .05$.

Hypothesis 1b predicted a significant and negative association between a sustainability-orientation and the number of funders. However, even though the mediation analysis showed that the b-path was found to be significant at $p < .001$, the a-path, i.e. the relationship between the moderate social or environmental orientation respectively and the number of funders, turned out to be non-significant. Thus, *H1b* is not supported.

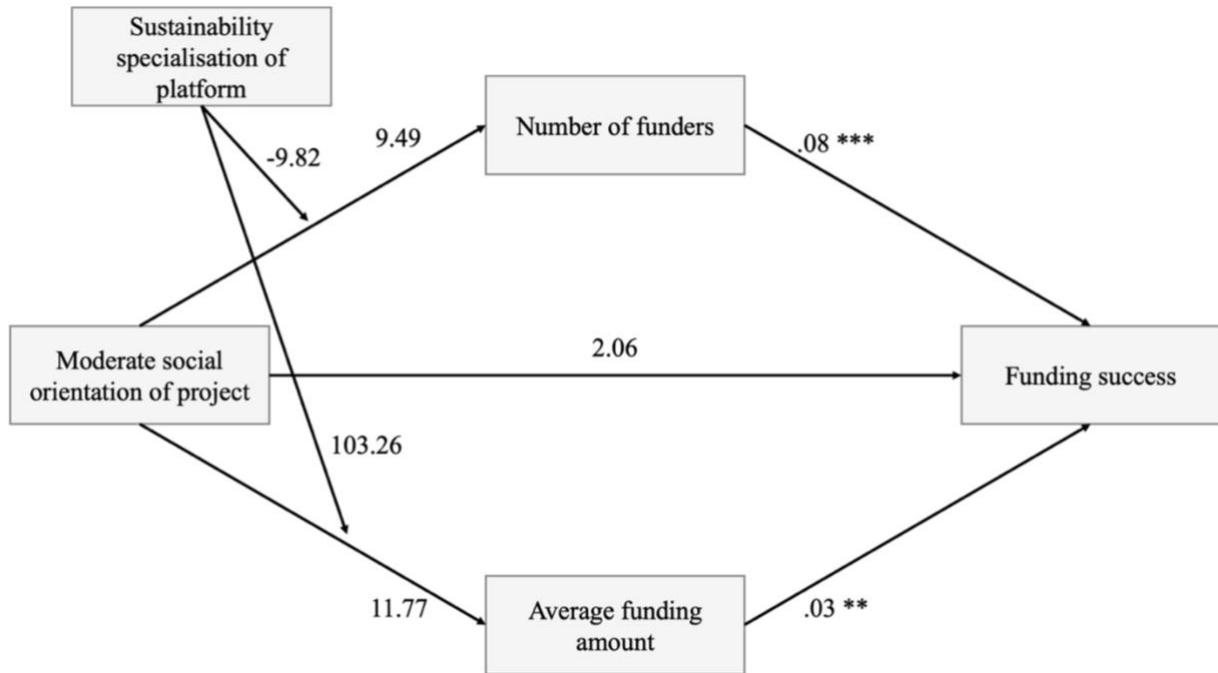
H1c anticipated that the average funding amount moderates the relationship between a sustainability-orientation and funding success. The a-path was expected to show a significant positive effect. However, the findings are similar to what is described above since the average amount of funds collected is significantly associated with success but only at a level of $p < 0.01$. On the a-path, no significance was found as neither a moderate social nor a moderate environmental orientation turned out to be significant predictors. Consequently, *H1c* is not supported.

H2 hypothesised a positive moderation of the effect between a sustainability-orientation and the average funding amount. The analysis revealed that the *Platform* variable does not significantly moderate the link between a limited sustainability orientation and the average funding amount. Hence, *H2* is not supported.

Hypothesis 3 forecasted a positive moderation of the effect between a sustainability-orientation and the number of funders. However, the platform was not found to significantly moderate the association between a limited social or environmental sustainability orientation respectively and the number of funders. Thus, *H3* is not supported.

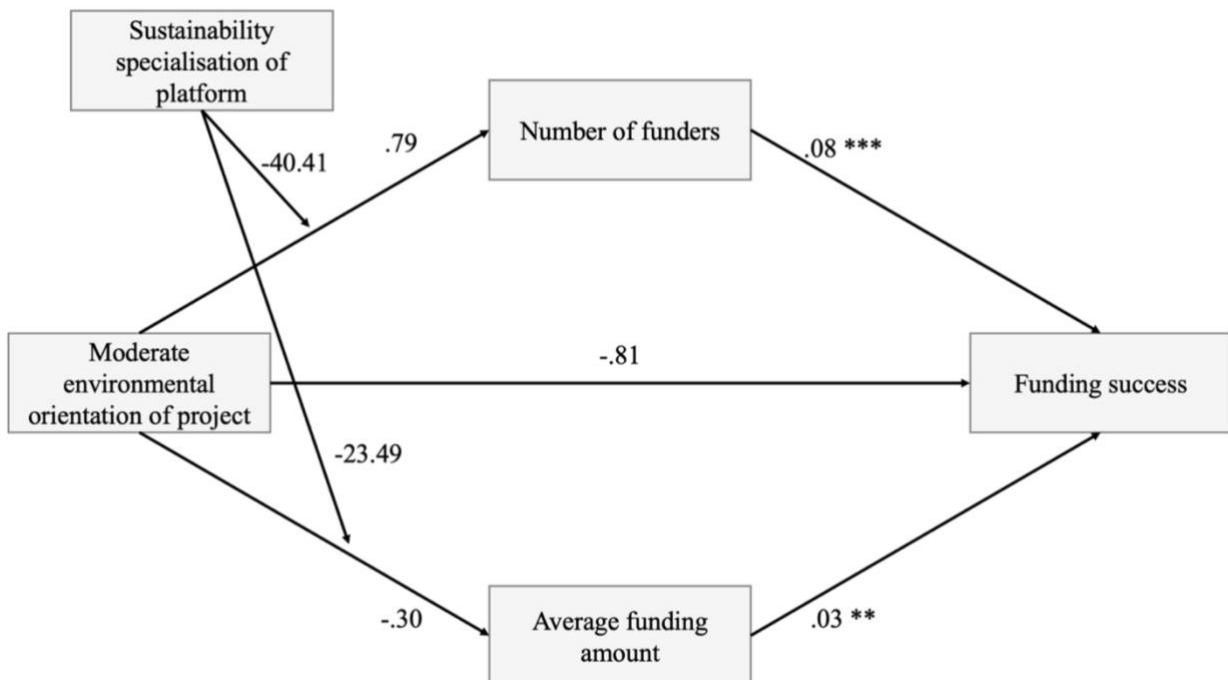
The CPA are summarised in Figure 2 and 3 respectively.

Figure 2: Bootstrap Results of CPA with Soc. Orient. as Predictor (*Success; n=200*)



Note. Bootstrap results are based on 10,000 bootstrap samples; nonconvergence during bootstrapping; *** $p < .001$; ** $p < .01$; * $p < .05$.

Figure 3: Bootstrap Results of CPA with Env. Orient. as Predictor (*Success; n=200*)



Note. Bootstrap results are based on 10,000 bootstrap samples; nonconvergence during bootstrapping; *** $p < .001$; ** $p < .01$; * $p < .05$.

6. Discussion and Conclusion

As stated in the introduction, the research goal of this paper is to advance the understanding of the connection between the sustainability orientation of platforms and the success rate of campaigns in reward-based crowdfunding. More concretely, we asked how the probability of a sustainability-oriented crowdfunding project meeting its funding goal is associated with being listed on a sustainability-oriented instead of a conventional platform. We assumed that it is beneficial for sustainability-oriented campaigns to be listed on specific instead of thematically open marketplaces. This was tested by collecting data from two reward-based crowdfunding platforms and running an LRA as well as several CPA. However, our study found no clear association.

As described above, we first tested whether a sustainability orientation is associated with funding success irrespective of the platform. Even though there are indications that a moderate social orientation is positively linked to funding success, the results of our paper are inconclusive. Likewise, no significant results were found concerning an environmental orientation. This opposes most of the extant literature as the review by Böckel et al. (2021) shows: only a handful scholars found no influence. Among others, Hörisch (2015) reports a non-significant association between an environmental orientation and funding success. In addition, Calic & Mosakowski (2016) only partially support their hypothesis, which predicted that an environmental orientation is positively associated with funding success, because the authors did not find a significant link for the film and video category. When comparing our results with Pinkow & Emmerich's (2021) paper, which has a different focus but drew on a sample from Startnext as well, we find support for the non-significance of a sustainability-orientation but also a contradiction. The authors controlled for categories which are likely to be connected to socially- or environmentally-oriented projects and found that those projects are significantly associated with funding success only when the funding goal exceeds a certain threshold. Thus, when not splitting the data based on the funding goal they did not find a significant effect too (Pinkow & Emmerich, 2021).

Second, we predicted a positive association between the sustainability orientation of a project and the average funding amount or the number of funders respectively. Even though the latter variables were unsurprisingly significantly correlated with funding success, we did not find any statistically significant links between a sustainability-orientation and the average funding amount or number of funders respectively. These results are partially supported by Hörisch & Tenner (2020) who studied investment-

based crowdfunding. Pinkow & Emmerich's (2021) paper, however, reports a significant link between social projects and the number of funders. Nevertheless, when distinguishing between different levels of funding success, the association is only significant for higher funding goals (Pinkow & Emmerich, 2021).

Concerning the non-significance of both the direct and mediated effect, we can suppose that this might be due to the platforms we chose for our study. EcoCrowd and Startnext appear to be characterised by a relatively high density of at least somewhat sustainability-oriented projects. In fact, only 5 out of the 200 projects in our sample showed neither a social nor an environmental orientation.⁴⁵ Therefore, we believe that being sustainability-oriented might be taken for granted by potential backers and hence, standing out positively only by being social and/or green is more difficult than on platforms which house mainly conventional campaigns. Based on Pinkow & Emmerich's (2021) findings, we could imagine that prospective funders might care more about a sustainability orientation, when a project exhibits a relatively high funding goal. For projects, which do not require a lot of funding, a sustainability-orientation may be deemed secondary and other project characteristics more important. This seems to challenge Defazio et al.'s (2021) deduction who write that their results, which are based on data from Kickstarter, "indicate that pro-social framing does matter in reward-based crowdfunding" (p. 372). Against the backdrop of the diversity of reward-based crowdfunding platforms, we believe that this statement is over-simplified. While it might be true for platforms like Kickstarter, which can be considered rather conventional, we believe based on our results and the extant literature mentioned above that it cannot be generalised to the full breadth of reward-based marketplaces and the projects listed there.

Finally, we tested whether there is a moderating effect in the form of the crowdfunding marketplace. But despite the descriptive results show that the average funding amount is higher on the specific platform (EcoCrowd), while projects listed on the more conventional one (Startnext) are on average supported by more funders, no significant moderation was found. Because our study is, to the best of our knowledge, the first that investigated this effect, we cannot directly compare our findings. However, we assume that the reason for the non-significant result could be the small number of cases or that Startnext appears to be not as conventional as, for instance, Kickstarter. As explained in

⁴⁵ 57 projects were not found to be environmentally orientated (notably, all of them, except for one, were listed on Startnext) and only 9 projects did not show a social orientation.

Section 3.2, we predicted a positive moderation of the association between a sustainability orientation and the average funding amount, among other things, via the identification with the community and argued that sustainability-oriented campaigns might be more successful on platforms which are characterised by a sustainability-oriented community. Thus, we argued for higher average funding amounts on EcoCrowd, but when looking at Startnext, we can observe that it is also a marketplace which is emphasizing sustainability (see Section 4.1). This could have fostered the formation of a loose ideology which is in favour of sustainability-oriented projects. Because of this potentially similar ideology, EcoCrowd and Startnext might not be significantly different concerning the average funding amount, despite the first being specific while the latter officially being thematically open. The non-significant difference in the number of funders might be explained by Startnext's emphasise on sustainability too. We predicted that a project on Startnext will be supported by on average more funders than a campaign on EcoCrowd because a platform specialised in sustainability may crowd out more conventional funders. But against the background provided above, it is thinkable that this crowding out effect might also happen, maybe in a less strong form, on Startnext. This could explain why the platform variable did not significantly moderate the potential link between a project's sustainability orientation and the number of funders. An additional reason could be that EcoCrowd appears to list considerably fewer campaigns simultaneously than Startnext. Assuming that the traffic, i.e., the number of prospective backers visiting the website, on EcoCrowd is lower (but not substantially), it would make sense that even though in total more funders are browsing through Startnext, the average project is not funded by significantly less backers on EcoCrowd because the number of campaigns that compete for donations is considerably smaller on EcoCrowd. In the aggregate, it seems that Startnext and EcoCrowd share more differences and at the same time similarities than one might think at a first glance.

From a practical perspective, our results do not allow to tell whether sustainable entrepreneurs should start their projects on a specialised or thematically open platform. However, based on the theoretical implications put forward above, we assume that green exclusivity might render a sustainability orientation subordinate and thus, it would not be a competitive edge anymore, if at all. In the light of the dissimilar results of studies examining the link between a sustainability orientation and funding success, we recommend sustainable entrepreneurs to differentiate via other characteristics than

solely relying on sustainability as a unique selling proposition, when planning to launch a campaign on a green crowdfunding platform. We further advise entrepreneurs not to look only at formal differences between crowdfunding platforms but to carefully examine the projects listed on the marketplaces as green exclusivity does not necessarily mean that sustainability-oriented projects are better off.

Our study has several limitations that need to be addressed. First, the comparability of the platforms we investigated might be limited. Some of the reasons have already been discussed above, but close scrutiny reveals that there could be other differences which are more than subtle. For instance, it seems that EcoCrowd houses a higher share of projects by entrepreneurs, which can be described as “alternative actors” (Schaltegger, 2002), while Startnext appears to be more commercial. Thus, the average project could not only differ concerning sustainability, but also with regard to the target market etc. However, we were not able to control for project categories since all the projects on EcoCrowd were assigned to all of the possible categories.⁴⁶ But as previous studies have shown that there can be differences among the categories (e.g., Calic & Mosakowski, 2016), the results might have been different when we selected, for example, only categories which are likely to encompass product-based campaigns. In addition, EcoCrowd highlighted some projects and listed them at the top of the campaign overview page. Similar to the campaign duration, it is not possible on hindsight to know whether a campaign has been endorsed or not just by looking at the website⁴⁷, which made controlling for those staff picks impossible. We further did not control for third-party endorsement on Startnext. It is possible that this variable has a similar or even stronger influence on success than a sustainability orientation.

Second, the generalisability of our paper is limited as we only studied two reward-based platforms in Germany. Dushnitsky & Fitza (2018) criticise that “crowdfunding platforms are so different that scholars should not generalize from one platform to another” (p. 3). The authors show that there are substantial difference even between platforms of the same crowdfunding type (Dushnitsky & Fitza, 2018), hence, we can only generalise our results to platforms with similar characteristics like EcoCrowd and Startnext.

⁴⁶ We assume that this was due to a technical issue.

⁴⁷ We realised that EcoCrowd selects certain campaigns only when we tried to lookup the missing data on the project duration (Section 4.3). So, theoretically it could be possible to remedy this limitation by using the Wayback Machine.

Future research could replicate this study with more comparable and at the same time distinguishable platforms. A larger sample might help to isolate the moderating effect of a marketplace's sustainability specialisation. In addition and motivated by Dushnitsky & Fitza (2018), a variance decomposition analysis that aims at finding out how much a sustainability orientation matters among different platforms might allow a more generalisable result than our study. Furthermore, it could be interesting to investigate the moderating effect of the platform component in the context of equity-based crowdfunding, which is a growing field of research (Mochkabadi & Volkmann, 2020).

VII. Appendices

Appendix A: Overview of Variables

Table A1: Overview of Variables and Their Operationalisation

	Variable	Operationalisation	Type	Code
Outcome	<i>Success</i>	Project collected 100% or more of target amount	Categorical (binary)	0 = no 1 = yes
	<i>Success2*</i>	Project collected 100% or more of target amount (stage goal)	Categorical (binary)	0 = no 1 = yes
Predictor	<i>S_SO</i>	“Limited (but positive)” (Defazio et al., 2021, p. 361) environmental orientation of a project as measured by the frequency of keywords	Categorical (binary)	0 = no 1 = yes
	<i>S_EO</i>	“Limited (but positive)” (Defazio et al., 2021, p. 361) social orientation of a project as measured by the frequency of keywords	Categorical (binary)	0 = no 1 = yes
Mediator	<i>Funders</i>	Number of funders backing the project	Continuous	
	<i>AvAmount</i>	Total amount collected by a project divided by number of funders measured in euro	Continuous	

Moderator	<i>Platform</i>	Platform is specialised in sustainability	Categorical (binary)	0 = no 1 = yes
Control	<i>M_, L_, and XL_SO</i>	Set of dummy variables measuring whether a project's social sustainability score is assigned to 2 nd , 3 rd , or 4 th quartile respectively (Defazio et al., 2021)	Categorical (binary)	0 = no 1 = yes
	<i>M_, L_, and XL_EO</i>	Set of dummy variables measuring whether a project's environmental sustainability score is assigned to 2 nd , 3 rd , or 4 th quartile respectively (Defazio et al., 2021)	Categorical (binary)	0 = no 1 = yes
	<i>Target *</i>	Funding target of a project measured in euro	Continuous	
	<i>Target2*</i>	Stage goal of a project measured in euro	Continuous	
	<i>SrTa</i>	Square root of <i>Target</i>	Continuous	
	<i>Updates</i>	Number of updates provided by	Continuous	

		initiator		
	<i>Comments</i> *	Number of comments by crowdfunding site visitors	Continuous	
	<i>LogCo</i>	Logarithm (base 10) of square root of <i>Comments</i> ⁴⁸	Continuous	
	<i>Duration</i> *	Duration of a campaign measured in days	Continuous	
	<i>Video</i> *	Project features at least one video	Categorical (binary)	0 = no 1 = yes
	<i>Princ</i>	Funding principle	Categorical (binary)	0 = Keep-it-All 1 = All-or-Nothing
	<i>Location</i> *	Country stated in project description	Categorical (binary)	1 = Germany 0 = Other ⁴⁹

* omitted in the final model

⁴⁸ For the sake of brevity, the transformation of *Comments* to *LogCo* is described in detail in Appendix E.

⁴⁹ Other account for a total of 12.5%. These 12.5% include 19 projects from Austria, 2 from Switzerland, and one each from France, Italy Portugal, or Ukraine, respectively.

Appendix B: Data Collection

Table B1: Variables Sorted by Data Collection Approach

	EcoCrowd	Startnext
Web Crawler	Amount ⁵⁰	Amount
	Location	-
Manual Collection	Funders	Funders
	Target ⁵¹	Target
	Video	Video
	Updates	Updates
	Comments	Comments
	Duration ⁵²	Duration
	n.a. ⁵³	Princ
	_54	Location

⁵⁰ The total amount of funds collected (*Amount*) was used to calculate the *AvAmount* variable only and does not explicitly appear in the analysis.

⁵¹ The web crawler only gathered the next stage goal which is not necessarily the final funding target.

⁵² The data on duration were obtained using estimated values (see Section 4.3).

⁵³ EcoCrowd does not follow the AoN principle.

⁵⁴ The web crawler retrieved the location data.

Appendix C: Descriptive Statistics

Table C1: Descriptive Statistics

	Startnext	EcoCrowd
Mean		
Amount raised (in euro)	3757.4 (5493.32)	3125.18 (5072.23)
Number of funders	50.52 (69.29)	35.63 (54.72)
Amount raised / funders (in euro)	64.80 (57.57)	74.13 (76,.9)
Funding goal (in euro)	11073.26 (26987.86)	18062.19 (20256.00)
		3904.74 (5084.40) ^a
Duration (in days)	37.99 (13.26)	46.99 (27.94)
Number of updates	0.56 (1.44)	1.32 (3.61)
Number of comments	8.52 (11.42)	0.32 (2.41)
Social score	9.01 (7.15)	15.43 (8.21)
Environmental score	2.16 (3.77)	16.72 (8.88)
Median		
Amount raised (in euro)	1606.50	1212.50
Number of funders	29.50	17.00
Amount raised / funders (in euro)	52.27	58.59
Funding goal (in euro)	3850.00	9950.00
		2000.00 ^a
Duration (in days)	36.00	46.00
Number of updates	0.00	0.00
Number of comments	4.00	0.00
Social score	9.00	15.00
Environmental score	.00	16.00
Percentage		
Funding goal reached	48.00%	9.00%
		43.40% ^a
Campaign features video	64.00%	75.00%
Funding principle is AoN	38.00%	.00% ^b

Valid N	100	100
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^a Funding goal = first stage goal, $n_{\text{EcoCrowd}}=99$; ^b EcoCrowd does not follow the AoN principle

Appendix D: Additional Analyses

1. Alternative Measure of Success

Table D1: Coefficients and Fit of Model 1-3 (Success2; $n=199$)

	Model 1			Model 2			Model 3		
	b	se	CI	b	se	CI	b	se	CI
Soc. Orient. (1 st Q.)	.94	4.67	LL -0.68 UL 21.58	.79	5.10	LL -0.92 UL 21.44	2.48*	4.72	LL .21 UL 22.38
Soc. Orient. (2 nd Q.)	.42	4.64	LL -1.08 UL 20.96	.32	5.09	LL -1.42 UL 20.92	1.69	4.68	LL -0.70 UL 21.51
Soc. Orient. (3 rd Q.)	.39	4.63	LL -1.17 UL 20.89	.38	5.07	LL -1.31 UL 20.91	2.20*	4.68	LL .05 UL 22.01
Soc. Orient. (4 th Q.)	.61	4.65	LL -0.98 UL 21.07	.68	5.08	LL -0.95 UL 21.30	3.00**	4.72	LL .86 UL 22.99
Env. Orient. (1 st Q.)				-.16	.47	LL -1.06 UL .84	-.76	1.25	LL -2.74 UL .67
Env. Orient. (2 nd Q.)				-1.10*	.52	LL -2.18 UL -.14	-.12	.87	LL -1.55 UL 1.94
Env. Orient. (3 rd Q.)				-.39	.50	LL -1.37 UL .65	1.03	.94	LL -.68 UL 3.08
Env. Orient. (4 th Q.)				-.19	.47	LL -1.10 UL .71	1.63*	.97	LL .25 UL 4.21
Funding goal							-.05***	.01	LL -.09 UL -0.4
Updates							.63**	.31	LL .35 UL 1.52
Comments							3.1***	1.24	LL 1.50 UL 6.12
Video							1.08*	.60	LL .20 UL 2.62
Funding principle							2.49***	1.70	LL 1.44 UL 5.29
Constant	-.69	4.63	LL -21.20 UL .69	-.36	5.07	LL -21.01 UL 1.17	-2.70	4.66	LL -22.44 UL -2.25
Model χ^2 (df)	2.49(4)			8.34(8)			113.81(13)***		
R ² _L	.01			.03			.41		
R ² _{CS}	.01			.04			.44		
R ² _N	.02			.06			.58		

Note. Bootstrap results are based on 1,000 bootstrap samples. *** $p < .001$; ** $p < .01$; * $p < .05$.

2. Removing Outliers ($n = 179$, cases with values over three standard deviations from mean have been deleted [Kulich et al. 2011])

Table D2: Coefficients and Fit of Model 1a (*Success; n=179*)

	b	se	CI	
			LL	UL
Soc. Orient. (1 st Q.)	3.18**	5.42	-1.46	23.42
Soc. Orient. (2 nd Q.)	1.83	5.43	-3.40	21.99
Soc. Orient. (3 rd Q.)	2.17	5.33	-2.82	22.25
Soc. Orient. (4 th Q.)	2.59	5.97	-12.43	22.55
Env. Orient. (1 st Q.)	-1.00	1.72	-4.56	.74
Env. Orient. (2 nd Q.)	-0.24	6.36	-19.16	2.91
Env. Orient. (3 rd Q.)	1.63	4.69	-16.53	6.99
Env. Orient. (4 th Q.)	1.71	8.33	-17.12	5.36
Funding goal	-.00***	.00	-.002	.00
Updates	.68*	.61	-.16	2.27
Comments	.55***	.34	0.37	1.52
Funding principle	2.79***	2.39	1.56	8.23
Constant	-3.77	5.51	-24.53	.58
Model χ^2 (df)	124.02(12)***			
R ² _L	.60			
R ² _{CS}	.50			
R ² _N	.73			

Note. Bootstrap results are based on 1000 bootstrap samples. *** $p < .001$; ** $p < .01$; * $p < .05$.

3. Removing Outliers ($n = 164$, cases which were identified using the residuals were removed)

Table D3: Coefficients and Fit of Model 1b (*Success; n=164*)

	b	se	CI	
			LL	UL
Soc. Orient. (1 st Q.)	8.90*	113.53	-224.73	110.19
Soc. Orient. (2 nd Q.)	6.63*	117.47	-288.98	92.04
Soc. Orient. (3 rd Q.)	6.17	122.42	-298.70	72.64
Soc. Orient. (4 th Q.)	4.93*	106.15	-194.44	95.05
Env. Orient. (1 st Q.)	-1.06	49.57	-72.98	92.03
Env. Orient. (2 nd Q.)	-2.15*	88.38	-27.84	251.83
Env. Orient. (3 rd Q.)	2.70	116.28	-52.01	319.35
Env. Orient. (4 th Q.)	-17.60	134.68	-151.30	280.58
Funding goal	-.11**	1.96	-5.21	-.06
Updates	2.04	42.14	-.24	84.78
Comments	14.93**	332.77	7.88	890.34
Funding principle	8.26**	101.76	6.92	317.14
Constant	-7.97*	108.32	-123.92	231.91
Model χ^2 (df)	159.54(12)***			
R ² _L	.88			
R ² _{CS}	.62			
R ² _N	.93			

Note. Bootstrap results are based on 1000 bootstrap samples except values for se, significance, LL and UL which are based on 947 samples. *** $p < .001$; ** $p < .01$; * $p < .05$.

Please also note, that due to redundancies the degrees of freedom for one or more variables in several split files have been reduced. Further, for several split files the estimation failed due to a numerical problem.

4. Removing Outliers ($n = 151$, cases with values over three standard deviations from mean [Kulich et al. 2011] and cases which were identified using the residuals were removed)

Table D4: Coefficients and Fit of Model 1c (*Success*; $n=151$)

	b	se	CI	
			LL	UL
Soc. Orient. (1 st Q.)	9.19*	124.78	-298.67	88.91
Soc. Orient. (2 nd Q.)	6.97	134.54	-330.87	78.54
Soc. Orient. (3 rd Q.)	6.33	139.28	-419.38	75.69
Soc. Orient. (4 th Q.)	5.08*	110.85	-251.90	92.28
Env. Orient. (1 st Q.)	-.37	56.31	-78.86	95.38
Env. Orient. (2 nd Q.)	-13.02	105.19	-32.59	367.17
Env. Orient. (3 rd Q.)	3.13	139.83	-44.92	489.85
Env. Orient. (4 th Q.)	-17.13	150.54	-141.14	486.84
Funding goal	-.12**	2.50	-7.29	-.06
Updates	2.07	40.10	-10.09	97.43
Comments	15.76**	381.22	8.26	1434.28
Funding principle	8.86**	110.82	6.75	357.09
Constant	-8.17*	131.75	-144.03	296.87
Model χ^2 (df)	140.53(12)***			
R ² _L	.86			
R ² _{cs}	.61			
R ² _N	.92			

Note. Bootstrap results are based on 1000 bootstrap samples except values for se, significance, LL and UL which are based on 962 samples. *** $p < .001$; ** $p < .01$; * $p < .05$.

Please also note, that due to redundancies the degrees of freedom for one or more variables in several split files have been reduced. Further, for several split files the estimation failed due to a numerical problem.

Appendix E: Testing for Linearity of the Logit

1. Transform scale variables using the natural logarithm.

*adding +1 to updates and comments because value can be zero

COMPUTE TrUp=Updates+1.

COMPUTE TrCo=Comments+1.

*log of variables

COMPUTE LnTa=LN(Target).

COMPUTE LnDu=LN(Duration).

COMPUTE LnUp=LN(TrUp).

COMPUTE LnCo=LN(TrCo).

2. Running LRA.

LOGISTIC REGRESSION VARIABLES Success

/METHOD=ENTER Target Duration TrUp TrCo LnTa*Target
Duration*LnDu LnUp*TrUp LnCo*TrCo

/CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Target	-.001	.000	15.054	1	<.001	.999
	Duration	.564	.451	1.567	1	.211	1.758
	TrUp	.471	.635	.550	1	.458	1.602
	TrCo	.850	.182	21.880	1	<.001	2.339
	LnTa by Target	.000	.000	13.420	1	<.001	1.000
	Duration by LnDu	-.120	.096	1.557	1	.212	.887
	LnUp by TrUp	-.048	.232	.042	1	.838	.954
	LnCo by TrCo	-.188	.046	16.612	1	<.001	.828
	Constant	-6.595	3.786	3.034	1	.082	.001

a. Variable(s) entered on step 1: Target, Duration, TrUp, TrCo, LnTa * Target, Duration * LnDu, LnUp * TrUp, LnCo * TrCo.

3. Transforming Target and Comments using the square root.

COMPUTE SrTa=SQRT(Target).

COMPUTE SrCo=SQRT(TrCo).

4. Transform new variables using the natural logarithm.

COMPUTE LnTa2=LN(SrTa).

COMPUTE LnCo2=LN(SrCo).

5. Running LRA.

LOGISTIC REGRESSION VARIABLES Success

```
/METHOD=ENTER  SrTa  Duration  Updates  SrCo  LnTa2*SrTa
Duration*LnDu LnUp*Updates LnCo2*SrCo
```

```
/CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).
```

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	SrTa	-.117	.104	1.282	1	.258	.889
	Duration	.576	.476	1.469	1	.225	1.780
	TrUp	.369	.630	.342	1	.559	1.446
	SrCo	3.869	1.200	10.398	1	.001	47.893
	LnTa2 by SrTa	.015	.019	.616	1	.433	1.015
	Duration by LnDu	-.121	.101	1.427	1	.232	.886
	LnUp by TrUp	-.012	.231	.003	1	.959	.988
	LnCo2 by SrCo	-1.316	.558	5.558	1	.018	.268
	Constant	-8.514	4.409	3.728	1	.054	.000

a. Variable(s) entered on step 1: SrTa, Duration, TrUp, SrCo, LnTa2 * SrTa , Duration * LnDu , LnUp * TrUp , LnCo2 * SrCo .

6. Transforming Comments using the logarithm to base 10.

```
COMPUTE LogCo=LG10 (SRCo) .
```

*adding +1 to LogCo because value can be zero

```
COMPUTE TrCo2=LogCo+1.
```

7. Transform new variable using the natural logarithm.

```
COMPUTE LnCo3=LN(TrCo2) .
```

8. Running LRA.

LOGISTIC REGRESSION VARIABLES Success

```
/METHOD=ENTER  SrTa  Duration  TrUp  TrCo2  LnTa2*SrTa
Duration*LnDu LnUp*TrUp LnCo3*TrCo2
```

```
/CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).
```

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	SrTa	-.113	.104	1.166	1	.280	.893
	Duration	.538	.468	1.322	1	.250	1.713
	TrUp	.342	.635	.291	1	.590	1.408
	TrCo2	8.167	14.579	.314	1	.575	3523.603
	LnTa2 by SrTa	.014	.019	.544	1	.461	1.014
	Duration by LnDu	-.113	.100	1.275	1	.259	.893
	LnUp by TrUp	-.003	.232	.000	1	.989	.997
	LnCo3 by TrCo2	-.999	11.413	.008	1	.930	.368
	Constant	-12.597	15.463	.664	1	.415	.000

a. Variable(s) entered on step 1: SrTa, Duration, TrUp, TrCo2, LnTa2 * SrTa , Duration * LnDu , LnUp * TrUp , LnCo3 * TrCo2 .

Result: No linearity issues anymore. SrTa and LogCo will be used in the further analyses.

Appendix F: Assessing the Model Fit

1. Integration of all variables in separate blocks.

LOGISTIC REGRESSION VARIABLES Success

/METHOD=ENTER S_SO M_SO L_SO XL_SO

/METHOD=ENTER S_EO M_EO L_EO XL_EO

/METHOD=ENTER SrTa

/METHOD=ENTER Updates

/METHOD=ENTER LogCo

/METHOD=ENTER Duration

/METHOD=ENTER Video

/METHOD=ENTER Princ

/METHOD=ENTER Location

/CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

2. Identifying variables that do not significantly improve model fit.

Duration:

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	.000	1	.984
	Block	.000	1	.984
	Model	118.302	12	<.001

Video:

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1.194	1	.275
	Block	1.194	1	.275
	Model	119.496	13	<.001

Location:

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	2.647	1	.104
	Block	2.647	1	.104
	Model	141.350	15	<.001

Appendix G: Diagnostics

Table G1: Diagnostics Based on Residuals (Field, 2018)

Residual	Threshold	Case numbers
COO_1 (Cook's distance)	>1	18, 165, 127, 130
LEV_1 (leverage)	> 0.13	56, 78, 66, 162, 52, 90, 61, 84, 5, 85, 178, 35, 10, 96, 65
	> 0.195	59, 71, 80, 30, 99, 186, 1, 88, 105, 92, 127, 191, 45, 18, 130
ZRE_1 (standardised residual)	outside 1.96	54, 44
	outside 2.58	166
	> 3	165, 68, 69
DFB8_1 (DFBeta for XL_EO)	> 1	165, 18
DFB11_1 (DFBeta for LogCo)	> 1	18, 68

Note. All thresholds (except COO_1 and LEV_1) refer to absolute values.

Cases appearing several times: 18 (4x), 68 (2x), 127 (2x), 130 (2x), 165 (3x).

Appendix H: Sustainability Scores

The following table shows the quartiles for projects which showed a sustainability orientation, i.e. SO or EO \neq 0. When the two dimensions (SO/EO) were handled separately, it can be observed that 57 projects scored 0 for the EO and only 9 for the SO.

Table H1: Quartiles of Sustainability Scores

SO	
1 st Quartile	2-5
2 nd Quartile	6-11
3 rd Quartile	12-40
4 th Quartile	18-41
EO	
1 st Quartile	2-5
2 nd Quartile	6-10
3 rd Quartile	11-18
4 th Quartile	19-54

Table H2: Frequencies of Sustainability Scores

Variable	n
SO	
None	9
1 st Quartile	32
2 nd Quartile	45
3 rd Quartile	66
4 th Quartile	48
Total	200
EO	
None	57
1 st Quartile	34
2 nd Quartile	33
3 rd Quartile	33
4 th Quartile	43
Total	200

Table H3: Frequencies of Sustainability Scores Organised by Platform

Variable (Platform)	n
SO (Startnext)	
None	7
1 st Quartile	28
2 nd Quartile	26
3 rd Quartile	29
4 th Quartile	10
Total	100
SO (EcoCrowd)	
None	2
1 st Quartile	4
2 nd Quartile	19
3 rd Quartile	37
4 th Quartile	38
Total	100
Variable	n
EO (Startnext)	
None	56
1 st Quartile	30
2 nd Quartile	10
3 rd Quartile	2
4 th Quartile	2
Total	100
EO (EcoCrowd)	
None	1
1 st Quartile	4
2 nd Quartile	23
3 rd Quartile	31
4 th Quartile	41
Total	100

Appendix I: Controlling for Collinearity

Table I1: Collinearity Diagnostics

Model		Coefficients ^a	
		Collinearity Statistics	
		Tolerance	VIF
1	SO = 1st quartile	.254	3.939
	SO = 2nd quartile	.206	4.845
	SO = 3rd quartile	.166	6.010
	SO = 4th quartile	.184	5.422
	EO = 1st quartile	.711	1.406
	EO = 2nd quartile	.601	1.663
	EO = 3rd quartile	.483	2.068
	EO = 4th quartile	.419	2.384
	Target (square root)	.783	1.277
	Updates	.883	1.133
	Comments (log10)	.573	1.747
	Funding principle	.706	1.417

a. Dependent Variable: Success

VIII. References

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