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Review

Sustainability-oriented crowdfunding: An integrative literature review

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ABSTRACT

Crowdfunding has emerged as an attractive financing option for sustainable entrepreneurship, where entrepreneurs must overcome considerable investor uncertainty in light of mixed social, ecological, and economic goals. The rapid emergence of studies on sustainability-oriented crowdfunding yielded a wide variety of theoretical perspectives and an abundance of empirical evidence due to a high dispersion across different research fields. Drawing on a systematic review and qualitative analysis of 157 articles, we map the existing research and develop a new and integrative framework to (1) organize key theoretical research levels (i.e., individual, transactional, and institutional), (2) identify multilevel antecedents, crowdfunding process dimensions, and short-vs. long-term outcomes, and (3) offer new and promising future research avenues. Our findings indicate a high degree of theoretical convergence at the individual and transactional level related to short-term crowdfunding outcomes, while research is limited concerning the institutional level, long-term outcomes, and the context of different crowdfunding forms. By highlighting the existing and missing linkages between the three levels related to sustainability-oriented crowdfunding processes, we contribute to the literature and guide future research to explore fruitful avenues in the field. Practical implications are gleaned from our findings for crowdfunding platforms, their supporting institutions, and the sustainability-oriented entrepreneurs seeking financing.

1. Introduction

Recent research has highlighted the potential of crowdfunding as a relevant alternative source of capital for sustainability-oriented ventures, which often face significant financial constraints and difficulties attracting classical venture capital (Calic and Mosakowski, 2016). Global crowdfunding market volume reached approximately USD 18 billion in 2022 and is expected to more than double by 2030,¹ demonstrating growing popularity. Crowdfunding involves efforts by entrepreneurs to finance ventures based on small contributions from many individuals over the internet (Mollick, 2014). As backer motivations in crowdfunding differ from those of traditional investors, it represents a fruitful alternative for financing sustainable ventures. Sustainable ventures pursue social and ecological goals through their entrepreneurial activities (York et al., 2016) and thereby actively support a paradigm shift that prioritizes both environmentally sustainable economic development and social change toward fairness and inclusion (Johnson and Schaltegger, 2020). Their simultaneous goal pursuit, however,

complicates the acquisition of capital from traditional investors, who typically focus primarily on economic returns and business plans (Lehner, 2013; Petruzzelli et al., 2019).

These particular hurdles of financing sustainable ventures have resulted in the development of a distinctive and rapidly growing research stream on sustainability-oriented crowdfunding (Testa et al., 2019). Considering the differences to commercial funding contexts (e.g., Parhankangas and Renko, 2017; Vismara, 2019), it would be a fallacy to simply transfer our understanding of the underlying mechanisms in the case of commercial crowdfunding to that of sustainability-oriented crowdfunding. For example, sustainability-oriented ventures attract more investors with a community orientation (Vismara, 2019) and benefit from different linguistic styles in their communication to the crowd (Parhankangas and Renko, 2017). Further, the interplay between extrinsic and intrinsic cues (e.g., Allison et al., 2015) and the relevant role of non-economic outcomes for sustainability-oriented ventures (e.g., Hörisch and Tenner, 2020) seem to significantly shape the study of sustainability-oriented crowdfunding.

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Despite these important empirical insights, several research gaps remain to fully understand and grasp the theoretical mechanisms within sustainability-oriented crowdfunding processes. There is an ongoing debate focusing on whether the underlying mechanisms explain the relationships between specific antecedents such as the social and/or ecological orientation of the venture or the different outcomes of the crowdfunding process (e.g., H \ddot{o} r \ddot{u} sch and Tenner, 2020; Lagazio and Querci, 2018). While existing literature reviews in this fast-growing field predominantly focus on quantitative analyses of published literature (e.g., B \ddot{o} ckel et al., 2020) or the context of single crowdfunding forms (e.g., Salido-Andres et al., 2021), our holistic understanding of the integration of theories in research on sustainability-oriented crowdfunding remains limited. Without theoretical integration across different crowdfunding forms and research disciplines, however, the sustainability-oriented crowdfunding field runs the risk of becoming highly fragmented, which threatens further theoretical advancements (e.g., B \ddot{o} ckel et al., 2020). As a counteractive measure, literature reviews from the field of traditional crowdfunding underline the importance of analyzing antecedents and outcomes in the context of different crowdfunding forms and research fields (e.g., Deng et al., 2022; He et al., 2024).

Building on the extant literature, we seek to deepen our current understanding by providing an enhanced review of the theoretical mechanisms that have been studied across different crowdfunding forms in the rapidly growing research stream of sustainability-oriented crowdfunding. We specifically aim to (a) determine if and to what extent a degree of theoretical convergence exists in the field of sustainability-oriented crowdfunding and (b) uncover the research avenues presently available to guide the academic community in its investigation of current, urgent questions to propel this line of research. To address these questions, we conducted (1) a systematic article review (Tranfield et al., 2003) that applies recommendations from the Preferred Reporting Items for Systematic Reviews (PRISMA) (Page et al., 2021), followed by (2) a qualitative analysis characterized by an exploration of themes and perspectives of the systematically generated body of literature (Elsbach and van Knippenberg, 2020; Karhunen et al., 2018; Radu-Lefebvre et al., 2021). Thus, the aim of this integrative literature review is to uncover the interdisciplinary developments and theoretical themes within this emerging research stream to systematically highlight invaluable research avenues based on the conceptual linkages—missing to date—with regard to the sustainability-oriented crowdfunding process.

Drawing on 157 articles from 79 different journals across 16 research disciplines published between January 2010 and March 2023, we find that previous studies have largely focused on motivational and behavioral mechanisms at the individual level, alongside signaling and interaction mechanisms at the transactional level. In contrast, research exploring the interplay of institutional and cultural factors at the institutional level has remained comparatively underexplored to date. Particularly, research has scarcely analyzed contextual antecedents (such as the institutional environment, culture and market aspects), as well as long-term outcomes related to campaigns (such as project implementation and impact), or to the ecosystem (such as policy impact and sectoral collaboration). Although assessing the contribution of crowdfunding to sustainable development from a long-term meta-level perspective is considered important (B \ddot{o} ckel et al., 2020), the institutional level has so far been largely neglected in research on sustainability-oriented crowdfunding. Furthermore, our findings indicate that the understanding of the impact of crowdfunding forms in terms of theoretical mechanisms remains limited.

Based on our analysis, we develop a comprehensive framework that integrates the identified theoretical themes at the (1) individual, (2) transactional, and (3) institutional levels and helps reveal the conceptual linkages between these levels and the corresponding crowdfunding process dimensions. While most of the reviewed studies focus on one of these levels, insights on the interface between them are critical to advancing our knowledge of this burgeoning field and will allow

researchers to efficiently focus on promising target areas. By providing a multilevel perspective on the theoretical mechanisms through which crowdfunding addresses societal support for sustainable entrepreneurship, our integrative framework contributes to the academic discourse on theoretical perspectives in the emerging sustainability-oriented crowdfunding research stream as well as the broader research field of sustainable venture finance (e.g., Bocken, 2015; Dhayal et al., 2023). A holistic understanding of the theoretical mechanisms at the individual, transactional, and institutional levels and their interrelationship is key for future contributions across different academic disciplines. With reference to the multidisciplinary nature of the research field, spanning areas such as information management, entrepreneurship and small business management, sector studies, and innovation, we further suggest that cross-disciplinary research efforts may be crucial for advancing this field.

With additional research on the institutional level, long-term outcomes, and the context of different crowdfunding forms, especially policy-makers and crowdfunding platforms can better focus their practices to influence the development of a conducive ecosystem for sustainability-oriented crowdfunding. By activating broad societal participation in the crowdfunding process, these stakeholders may help unlock the substantial potential of sustainability-oriented crowdfunding to contribute to progress on global sustainability goals (e.g., Anglin et al., 2022).

2. Literature review context

Crowdfunding has evolved into different forms, each of which are characterized by complex interactions between stakeholders and the steps involved in the crowdfunding process (e.g., Lehner and Harrer, 2019). Existing literature differentiates between four main crowdfunding forms, namely reward-based, donation-based, lending-based, and equity-based (Mollick, 2014). Reward-based crowdfunding typically involves the pre-sale of a future product along with non-financial rewards (Dai and Zhang, 2019). Donation-based crowdfunding collects financial contributions based on philanthropy, whereby backers do not receive a product or financial return in exchange for their financial contribution (Li et al., 2020). Lending-based crowdfunding offers small loans to individual backers, who, depending on the platform type, either expect only the repayment of their initially invested capital or an additional financial gain in the form of interest payments (Allison et al., 2013; Short et al., 2017). In equity-based crowdfunding, backers obtain small equity stakes in the venture and become fractional shareholders (Vismara, 2019).

Research on sustainability-oriented crowdfunding centers around crowdfunding practices that aim to provide capital for sustainable ventures, and thus refers to the intersection between crowdfunding and sustainable entrepreneurship (e.g., B \ddot{o} ckel et al., 2020; Calic and Mosakowski, 2016). Given its specific focus, sustainability-oriented crowdfunding is related to the concept of the *triple bottom line* from sustainable entrepreneurship (e.g., Vedula et al., 2022), which describes the simultaneous pursuit of social, ecological, and economic goals when following entrepreneurial opportunities (Belz and Binder, 2017). In this study, sustainable entrepreneurship is defined as the exploitation of entrepreneurial opportunities that focus on social and ecological aspects and result in both economic and non-economic gains for individuals, the society, and the economy (Shepherd and Patzelt, 2011). Research suggests that mechanisms in the crowdfunding of sustainable ventures are different from those in that of purely commercial ventures, leading to different success criteria in investor communication (e.g., Parhankangas and Renko, 2017). While commercial and sustainable ventures are present on reward-based crowdfunding platforms (e.g., Kickstarter, Indiegogo), specialized forms of crowdfunding (e.g., donation-based, prosocial lending-based) and platforms (e.g., Betterplace, Kiva) have emerged that tailor to a sustainability-oriented audience. As crowdfunding backers display more diverse funding motivations than

traditional investors, sustainable entrepreneurs are assumed to particularly benefit from crowdfunding due to potential goal alignment (Petruzzelli et al., 2019).

3. Methodology

To ensure an extensive literature examination, we followed a two-fold literature review approach by first generating a broad base of literature and then descriptively and qualitatively analyzing the articles in a second step, while aiming at advancing our conceptual and theoretical knowledge (e.g., Radu-Lefebvre et al., 2021). As recommended by the literature, we applied a systematic article search and selection process (Tranfield et al., 2003) consisting of identifying potential articles, selecting relevant publications, and assessing the studies meeting our criteria.

3.1. Article search and selection

To uncover and capture relevant articles for the review, we first developed a broad search string encompassing a combination of relevant keywords related to crowdfunding and sustainability that were linked by suitable search operators (see Table 1). In selecting our search terms, the first half of the search string is directly composed of the terms for the types of crowdfunding (e.g., crowdlending) and their synonyms (e.g., peer-to-peer lending). The second half of the string is composed of terms that mirror the development of specialized crowdfunding markets in the environmental sector, such as the renewable energy market (e.g., Bourcet and Bovari, 2020; Cumming et al., 2017), and synonyms for ecological entrepreneurship based on the literature (see Gast et al., 2017). Our search was conducted utilizing the databases *Web of Science/SSCI* and *EBSCO/Business Source Premier*, which are among the most frequently used and widely accepted literature databases in entrepreneurship (see Kraus et al., 2020). We limited our search scope to peer-reviewed journal articles written in English that were published between January 1, 2010 and March 15, 2023. The starting year of 2010

Table 1
Search string, databases, and inclusion and exclusion criteria.

Search string	
crowdfund* OR "crowd fund*" OR crowd-fund* OR crowdlend* OR "crowd lend*" OR crowd-lend* OR crowdinvest* OR "crowd invest*" OR "peer-to-peer lend*" OR "peer to peer lend*" OR "peer-to-peer-lend*" OR "p2p lend*" OR "p2p-lend*" OR "p-2-p lend*" OR "p-2-p-lend*" OR microlend* OR "micro lend*" OR micro-lend*	
AND	
social* OR prosocial* OR eco* OR environment* OR green* OR carbon* OR emission* OR cleantech* OR "clean tech*" OR clean-tech* OR "clean energy" OR energy OR sustain* OR "triple bottom*" OR triple-bottom* OR hybrid*	
Database	Number of articles (cumulated) ^a
Web of Science/SSCI	1000
EBSCO/Business Source Premier	853
Inclusion criteria	
<ul style="list-style-type: none"> • Available articles in English language from 2010 to 2023 (until March 15, 2023) • Peer-reviewed, academic journal articles • Articles examining sustainability-oriented crowdfunding 	
Exclusion criteria	
<ul style="list-style-type: none"> • Articles lacking focus on crowdfunding or sustainability; purely conceptual articles • Duplicates within or between databases, or between the two search periods (due to early access to papers) • Articles below the defined quality threshold (based on the Academic Journal Guide/ABS¹) 	

Note: In the search string, the asterisk (*) is used as a wildcard for any group of characters at the end of words, while the quotation marks ("") are used as parentheses for an exact match of the expression.

^a <https://chartereddabs.org/academic-journal-guide-2021>.

¹ <https://www.polarismarketresearch.com/industry-analysis/crowdfundng-market>, accessed: June 6, 2023.

was chosen because the widely popular U.S.-based platform Kickstarter was founded in late 2009, along with Indiegogo in 2010, after which crowdfunding research and practice escalated (Böckel et al., 2020). Table 1 provides an overview of the search string, the databases, as well as the inclusion and exclusion criteria. These defined search strings resulted in 1853 hits from the two databases.²

Next, after removing all duplicates, two of the authors systematically screened 1466 articles by scanning the titles and abstracts and excluded articles that either lacked a focus on crowdfunding platforms (e.g., those that focused on other forms of financing, such as traditional venture capital, bank lending, or microcredits in general) or on the topic of sustainable ventures (e.g., articles that focused on purely commercial ventures or on artistic and cultural ventures without a clear reference to social or ecological aims). This process resulted in a high degree of agreement between the authors (approximately 90%). With unclear cases, the full author team engaged in discussions to reach consensus on whether to include these articles. The flow diagram in Fig. 1 summarizes our screening process following the PRISMA recommendations (Page et al., 2021) that resulted in the final list of publication for this literature review.

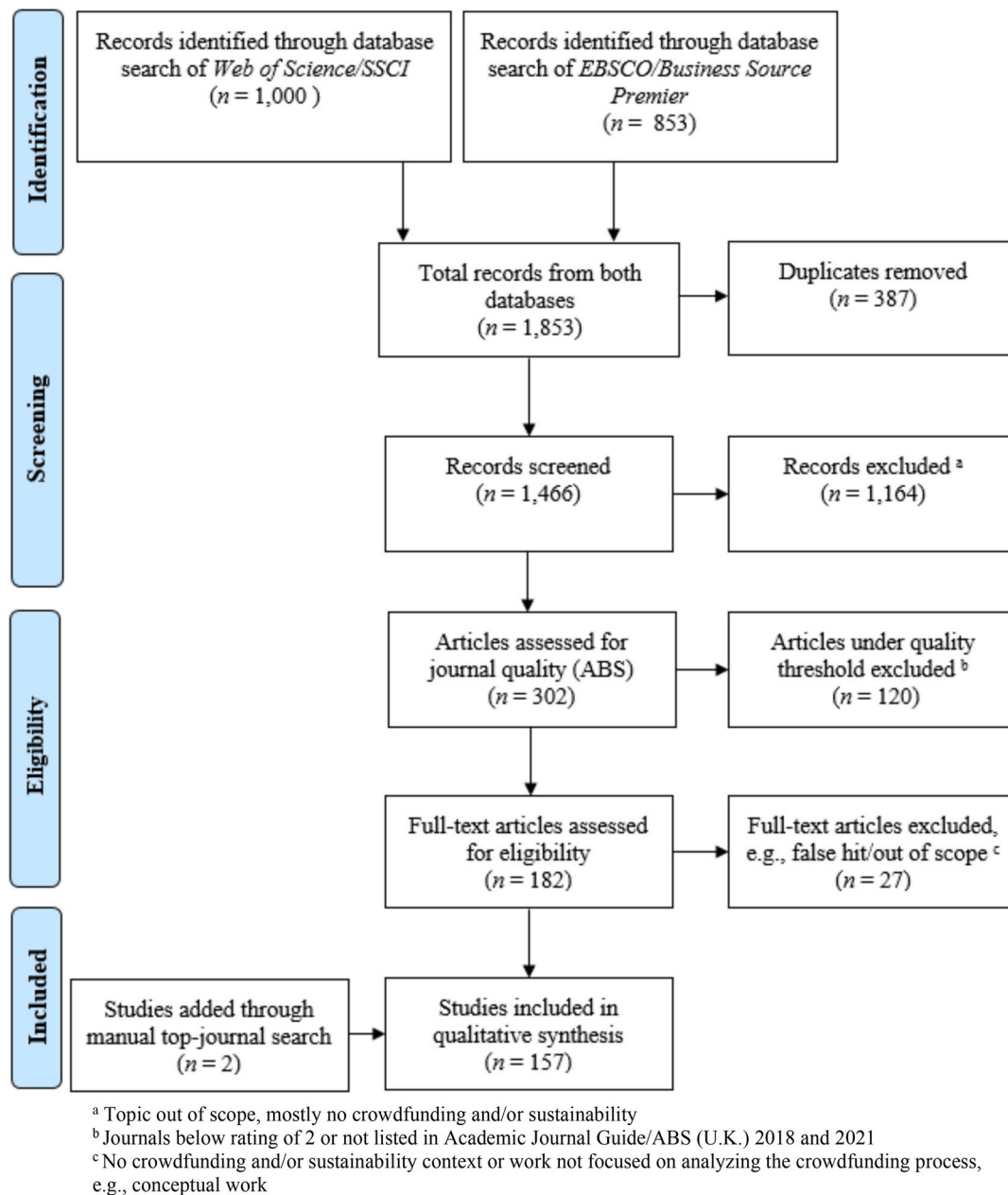
In line with our theoretical focus, a quality threshold based on journal rankings was introduced to improve comparability and set a common standard (Kraus et al., 2020). Following the Academic Journal Guide/ABS (U.K.), we included only those articles from journals that reached a rating of 2 or higher (on a scale ranging from 1 to 4*). After reading the full-text articles, we excluded articles that were not specifically focused on our research context. As a robustness check of our search string, we additionally conducted an issue-by-issue search of the three highest ranked entrepreneurship journals from the ABS list, namely *Entrepreneurship Theory and Practice*, *Journal of Business Venturing*, and *Strategic Entrepreneurship Journal*. By applying our pre-defined criteria (published 2010–2023, focus on sustainability-oriented crowdfunding) to titles and abstracts, we found two additional articles, which we added to our results, yielding our final dataset of 157 articles. This small number of uncovered additional studies implies that our comprehensive search string was indeed representative for our search target. The Appendix reports the full set of 157 articles included in this literature review.

3.2. Analysis

The subsequent analysis process entailed three main steps: (1) the descriptive analysis of the articles based on initial categories and citation mapping using the AI-based software tool *Litmaps*,³ (2) the iterative identification of theoretical themes based on common patterns and discrepancies in the reviewed articles, and (3) the expansion and revision of themes for aggregation. To obtain an overview of the selected articles from our dataset and to determine their positioning within the literature, we conducted an initial descriptive categorization including common categories (see Table 1 in the Appendix), such as the research field, the type of research conducted (empirical-quantitative, empirical-qualitative, or mixed), the chosen methods (secondary data analysis,

² We conducted an initial search on February 17, 2021, and March 17, 2021, to obtain an initial overview of the field for the qualitative analysis. This was updated in a second search two years later, on March 15, 2023, to reflect the current state of research in the dynamically developing field of sustainability-oriented crowdfunding. At the time of each search, our search string resulted in 595 and 405 hits using *Web of Science/SSCI*, and 535 and 318 hits using *EBSCO/Business Source Premier* in the initial and the follow-up search, respectively. The second set of articles includes those published after our initial search, thus spanning a time frame of approximately two years and the first quarter of 2023 up to March 15. Thus, our literature review is based on the total number of (included and excluded) articles resulting from the two separate search periods (in 2021 and 2023).

³ <https://www.litmaps.com>, accessed: Oct. 13, 2023.



Note: The records reported here are cumulated from both search periods (in 2021 and 2023) to provide a complete overview of the total numbers of included and excluded articles in this literature review.

Fig. 1. Flow chart illustrating the screening process.

Note: The records reported here are cumulated from both search periods (in 2021 and 2023) to provide a complete overview of the total numbers of included and excluded articles in this literature review.

survey, experiments, interviews, case studies), the main topic focus, and the key findings. In addition, we identified the authors' choice of theoretical lens wherever possible. Lastly, we categorized the geographical location of the examined crowdfunding platform or sample, as well as the underlying platform type. Thereby, we chose to further refine the conventional categorization of crowdfunding forms (Mollick, 2014) and additionally differentiated between two sub-categories of lending-based crowdfunding: *prosocial lending* without financial returns and *return-oriented lending* with financial returns. These two subtypes require differentiation due to different underlying funding mechanisms that may be related to different dominant motivations of actors (i.e., altruistic giving vs. profit maximization). To understand the

relationship between the articles and to visualize their influence on each other over time, we additionally mapped our articles by applying the algorithm-based literature-mapping software *Litmaps*. This software visualizes the (forward and backward) citation patterns across a given pool of articles, which results in an insightful depiction of published and cited articles over time.

As a next step, we delved deeper into each reviewed article and qualitatively analyzed the theoretical themes that are associated with the examined mechanisms in the sustainability-oriented crowdfunding process. This process entailed the author team's ongoing discussion of the evolving categorization, iteratively referring back to the selected articles and previously identified categories (Gioia et al., 2013). We then

critically assessed the literature with the aim of revealing systematic patterns among the articles with regard to the theoretical themes until a holistic picture and structure emerged (see Radu-Lefebvre et al., 2021).

4. Results

4.1. Mapping a fragmented research field

Our initial descriptive analysis disclosed the following trends in sustainability-oriented crowdfunding: (1) an increasing research interest, (2) an imbalanced research focus with regard to quantitative, qualitative, and mixed methods, crowdfunding forms, and geographical regions, and (3) high fragmentation of research fields and journals, as well as the applied theories. Furthermore, the literature map reveals a small number of highly influential articles over time that are cited by the majority of the reviewed articles on sustainability-oriented crowdfunding.

Fig. 2 depicts the increasing number of articles on sustainability-oriented crowdfunding, showing steep growth in the years 2019 ($n = 25$), 2021 ($n = 28$), and 2022 ($n = 38$). The upward growth trend found in 2021 and 2022 appears to continue in 2023, indicated by the 11 articles included in our literature review as of March 15. Quantitative methods were used in 123 articles, qualitative methods in 23 articles, and a mixed method approach (utilizing both quantitative and qualitative methods) in 11 articles. Further, research on sustainability-oriented crowdfunding explored predominantly reward-based (28%), donation-based (24%), and prosocial lending-based crowdfunding (21%). In the context of sustainability, fewer articles have dealt with return-oriented lending-based (13%) and equity-based crowdfunding (11%),⁴ the two crowdfunding forms that offer potential financial gains to backers. The geographical regions represented in this sample include the United States with 78 publications examining a crowdfunding platform or a respective sample of backers, the European Union with 35 articles, the People's Republic of China (hereafter the P.R.C.)⁵ with 15 articles, and the United Kingdom with 13 articles. The early launch of crowdfunding platforms in the U.S. (e.g., Kickstarter in 2009) is one reason for the disproportionate number of studies deriving from this region compared to the other geographical regions.

In addition, we observed a high fragmentation in terms of the research fields and journals as well as the applied theories. Our findings show that researchers published their articles in 79 different journals from 16 research disciplines. Fig. 3 illustrates the growth (in terms of numbers) of articles on sustainability-oriented crowdfunding according to the dominant research fields.

The majority of the reviewed articles derive from the field of information management (27 articles) with *Management Information Systems Quarterly* as the leading journal with 4 publications, which implies a high dispersion across different journals in this field. The information management discipline is closely followed by research from the field of entrepreneurship and small business management (26 articles) with the highest article count (6 articles each) found in *Entrepreneurship Theory and Practice* and *International Journal of Entrepreneurial Behavior & Research*. The research discipline sector studies (19 articles) focuses on sectors such as energy or nonprofits, and the highest number of publications is found for the *Journal of Cleaner Production* (14 articles). This is

⁴ Given that some articles consider multiple crowdfunding forms, the percentages indicated refer to a total number of 193 individual crowdfunding forms examined within the 157 reviewed articles. Three percent of the articles did not specify the considered crowdfunding form, e.g., reported focusing on “crowdfunding” in general.

⁵ Note that lending-based crowdfunding activities have been essentially banned in China as of 2020 due to fraud cases. Consequently, research on this type of crowdfunding in China has declined and researchers are now forced to use older data in their analyses.

followed by publications of research covering the area of innovation (16 articles), with all but two appearing in *Technological Forecasting and Social Change* (14 articles). The distinct spike observed in the number of published articles in 2019 may be attributed to the publication of a special issue focusing on “the role of crowdfunding in moving towards a sustainable society” of *Technological Forecasting and Social Change* in the field of innovation. Other fields contributing research on this topic include ethics, corporate social responsibility, and management (13 articles), economics (12 articles), marketing (11 articles), and the social sciences (9 articles).

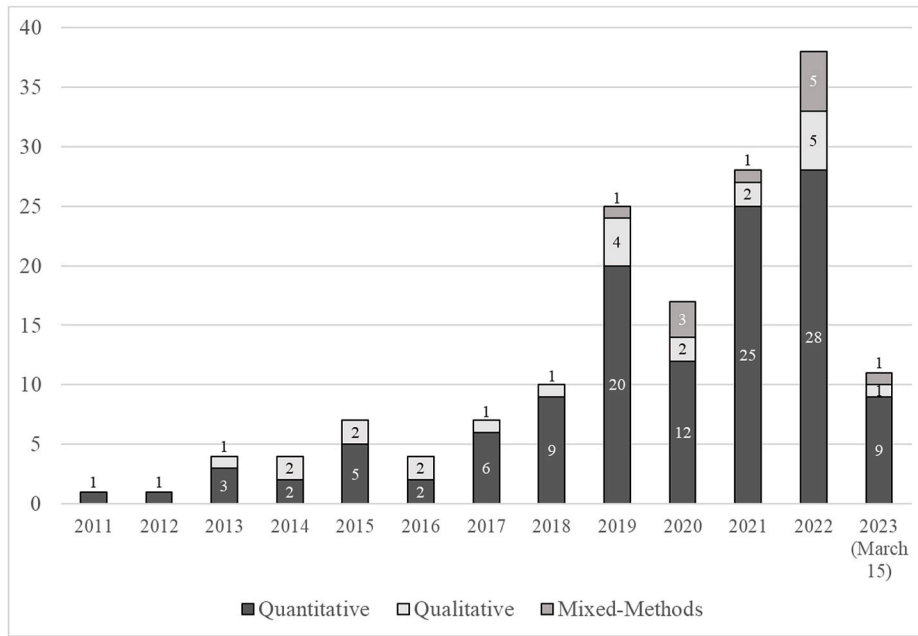
Fig. 4 provides a visual citation map of the 157 papers on sustainability-oriented crowdfunding in our review and shows how the field has evolved over time. The number of citations for each study is depicted on the y-axis, while the year of publication is depicted on the x-axis. The studies located above an imaginary diagonal line from the top left to bottom right corner of Fig. 4 are particularly influential. Exerting their influence even today, our systematic review uncovered only one article each for the years 2011 and 2012 (on prosocial lending-based crowdfunding), and both were published in the *Journal of Marketing Research* (Galak et al., 2011; Stephen and Galak, 2012). The platform focus of these earliest articles is not surprising, because prosocial lending-based crowdfunding was historically one of the first crowdfunding forms on the internet. The most influential work was published by Allison et al. (2015) in *Entrepreneurship Theory and Practice*. Similarly, the work of Calic and Mosakowski (2016) on sustainability orientation and crowdfunding success in the *Journal of Management Studies* and the contribution of Parhankangas and Renko (2017) on linguistic styles in crowdfunding pitches of sustainable versus commercial ventures in the *Journal of Business Venturing*—both based on reward-based crowdfunding—have been cited more than 380 times within a few short years. Focusing on the recent 2019–2023 period, the field increasingly evolved to include different disciplines and journals, providing additional, recent outstanding studies by Vismara (2019), Bagheri et al. (2019), Behl and Dutta (2020), and Chan et al. (2021) to name a few. Especially, Vismara's (2019) recent work on equity-based crowdfunding (the newest form of this phenomenon so far) has attracted the attention of scholars in the field. In summary, the visual citation map provides confirmatory evidence for an increasingly evolving multidisciplinary research field.

Although most articles provide theoretical backgrounds for their research and even mention several theories in this context, only a few explicitly build their research around one or more core theories. The applied theories span multiple perspectives with a predominant focus on information asymmetry and/or signaling theory: 28 articles build on or refer to these theories. Further frequently mentioned theories included self-determination theory and/or cognitive evaluation theory (13 articles), as well as social capital and/or social network theory (10 articles). Additional articles referred to warm-glow theory (8 articles), altruism (7 articles), or framing theory (7 articles). Fig. 5 illustrates the most frequently applied theoretical lenses across the different crowdfunding forms, revealing that information asymmetry and signaling was mostly utilized in prosocial lending-based and reward-based crowdfunding, whereas self-determination theory was predominantly applied in donation-based crowdfunding.

4.2. A framework for organizing research on sustainability-oriented crowdfunding

Derived from our qualitative analysis, we identified major theoretical themes in sustainability-oriented crowdfunding. Table 2 offers an overview of the clustering of the identified descriptive theoretical themes into higher-order and aggregate themes with corresponding examples, which provides the basis for our framework in Fig. 6.

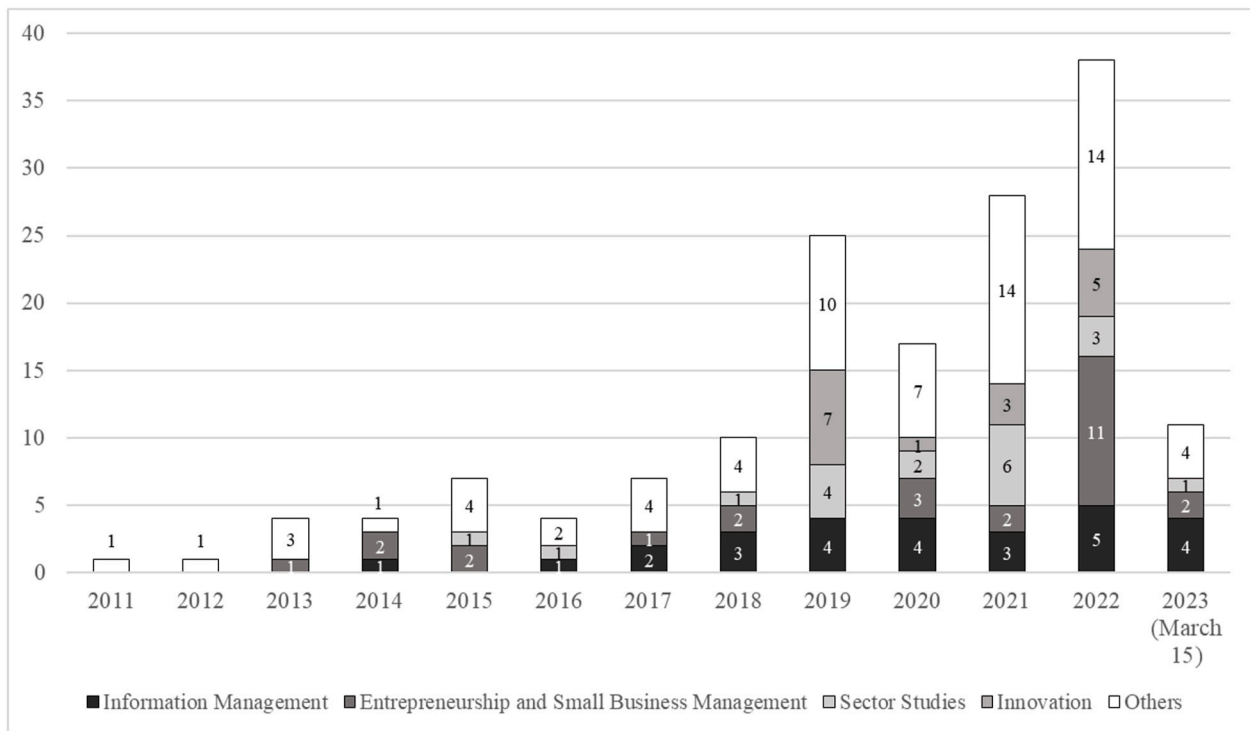
To provide additional context for these theoretical mechanisms and to present a comprehensive picture of the crowdfunding process, we further analyzed the explored antecedents and outcomes in sustainability-oriented crowdfunding. Tables 3 and 4 provide an



Note: The search resulted in 11 articles in 2023 for the time period from January 1, 2023 until March 15, 2023.

Fig. 2. Number of published papers on sustainability-oriented crowdfunding by method.

Note: The search resulted in 11 articles in 2023 for the time period from January 1, 2023 until March 15, 2023.



Note: In 2023, the search resulted in 11 articles for the time period from January 1, 2023 until March 15, 2023.

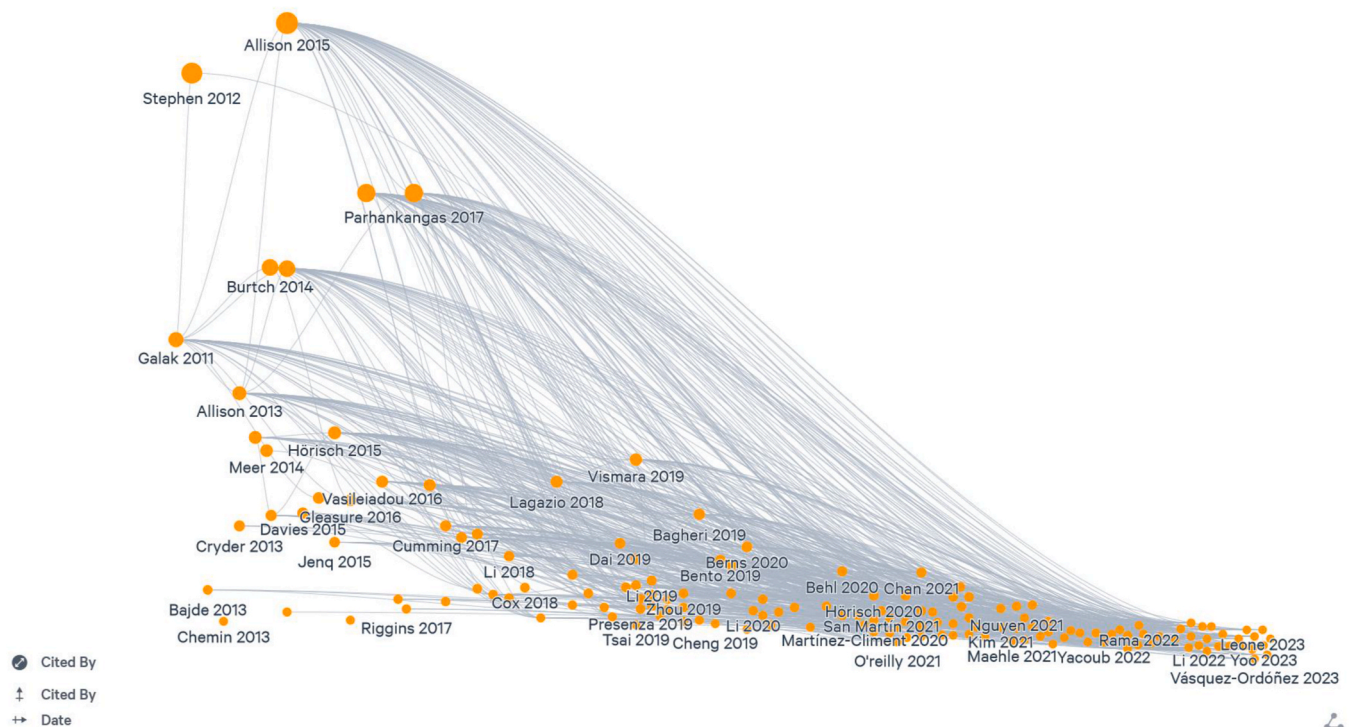
Fig. 3. Number of published papers on sustainability-oriented crowdfunding by research field.

Note: In 2023, the search resulted in 11 articles for the time period from January 1, 2023 until March 15, 2023.

overview of the clustering of the antecedent and outcome themes into higher-order and aggregate themes with corresponding examples.

Specifically, to offer a comprehensive picture of how effects in sustainability-oriented crowdfunding occur (Anderson et al., 2006), and in line with other multilevel studies on crowdfunding (e.g., Cai et al., 2020; Harrer et al., 2023), we developed our three-level theoretical

framework based on the antecedents and outcomes of the underlying crowdfunding process. The framework involves the (1) individual, (2) transactional, and (3) institutional level. The *individual level* aggregates the theoretical themes of mixed motives of sustainability-oriented entrepreneurs and backers and sustainability-related biases, framing effects, and behavioral factors. The *transactional level* aggregates the



Note. Input of $n = 157$ identified and included articles in this literature review were used to visualize the citation map. The x-axis (i.e., date) is depicted in a compact format, which compresses the early years (2011–2018) and pushes apart later years (2019–2023), to better visualize the high number of publications on sustainability-oriented crowdfunding in recent years.

Fig. 4. Visual citation map of published papers on sustainability-oriented crowdfunding using *Litmaps*.

Note. Input of $n = 157$ identified and included articles in this literature review were used to visualize the citation map. The x-axis (i.e., date) is depicted in a compact format, which compresses the early years (2011–2018) and pushes apart later years (2019–2023), to better visualize the high number of publications on sustainability-oriented crowdfunding in recent years.

themes of campaign signals in sustainability-oriented crowdfunding and the role of social interaction in sustainability-oriented crowdfunding. The *institutional level* aggregates the themes related to the link between institutional and cultural factors and sustainability-oriented crowdfunding.

Fig. 6 illustrates the theoretical mechanisms that are linked to the theoretical levels and indicates the number of articles associated with each of the aggregate themes. Based on the results of our analysis, we further included the different crowdfunding forms in the framework and incorporated two process phases to distinguish between short- and long-term outcomes in sustainability-oriented crowdfunding. This distinction is useful to better capture potential future research avenues with respect to the entire process (Saebi et al., 2018).

4.2.1. Individual level

Individual-level mechanisms refer to the motivations and decisions of sustainable entrepreneurs or backers as individual actors. Research at the individual level ($n = 75$) deals predominantly with *mixed motives of sustainability-oriented entrepreneurs and backers* ($n = 36$) as well as *sustainability-related biases, framing effects, and behavioral factors* ($n = 45$) of the individuals. As sustainability-oriented crowdfunding is associated with both economic and non-economic outcomes (Shepherd and Patzelt, 2011), investigating psychological and behavioral theories linked to decision-making processes represents a relevant research topic in this particular context. The personal sustainability orientation of entrepreneurs and backers can impose constraints to the economic growth of ventures. Thus, it is ambiguous how this influences the crowdfunding process (Mansouri and Momtaz, 2022).

Mixed motives of sustainability-oriented backers and entrepreneurs. The subtheme of mixed motives focuses on the interplay of different motivations, for example, extrinsic and intrinsic motives, self-orientation and

other-orientation, or altruism and egoism. Scholars often applied theories from social psychology to derive conclusions about the drivers of individual crowdfunding decisions (e.g., Allison et al., 2013; Behl et al., 2023; Jang and Chu, 2022).

Self-determination theory (Deci and Ryan, 1985) is such a frequently used theory to explain backer behavior linked to intrinsic and extrinsic incentives of sustainability-oriented campaigns (e.g., Bento et al., 2019). The theory distinguishes between extrinsic motives related to external rewards and intrinsic motives related to the satisfaction from performing an activity (Deci and Ryan, 2012). Scholars find that a combination of intrinsic and extrinsic factors drives backer behavior, even in the absence of potential financial or product returns (Chen et al., 2021; Zhang et al., 2022). The influential work of Allison et al. (2015) highlights the relevance of the backers' intrinsic motivation in prosocial lending-based crowdfunding by showing that they respond positively to narratives emphasizing the basic needs of others compared to narratives emphasizing the potential for business growth. While some studies describe similar findings (e.g., Gafni et al., 2021), others report that the existence of financial returns can crowd out backers' intrinsic motivation related to social impact (e.g., Kollenda, 2022).

In addition, warm-glow theory (Andreoni, 1990) represents another commonly studied theoretical mechanism (e.g., Chemin and de Laat, 2013; Dorfleitner et al., 2020; Penz et al., 2022), stating that individuals support others to feel good about themselves. In this regard, the findings reported in the reviewed studies show some inconsistencies. While Allison et al. (2013) conclude that faster funding can be explained through the warm-glow effect of narratives linked to blame and current concern in prosocial lending-based crowdfunding, Lagazio and Querci (2018) find no support for this effect in their study of reward-based crowdfunding. Further studies observe a warm-glow effect for ecological campaigns in equity-based and return-oriented lending-based

Crowdfunding form \ Theoretical lens (number of articles)	Reward-based	Donation-based	Prosocial lending-based	Return-oriented lending-based	Equity-based	Total count*
Information asymmetry / signaling (28)	7	5	11	3	2	28
Self-determination / cognitive evaluation (13)	2	7	3	1	-	13
Social capital / networks (10)	4	3	1	3	2	13
Warm-glow (8)	2	1	2	3	1	9
Altruism (7)	3	2	2	-	-	7
Framing (7)	4	1	2	2	1	10

* Total count shows the total number of crowdfunding forms examined by the articles under each theoretical lens; Therefore, total count may be larger than number of articles, as articles may examine more than one crowdfunding form.

Fig. 5. Theoretical lenses applied in the various crowdfunding forms.

crowdfunding (Hörisch and Tenner, 2020; Penz et al., 2022). The partly contrasting results may be explained by the focus on different crowdfunding forms that are related to different degrees of economic, social, or ecological orientations and values of the participating entrepreneurs and backers (Meyskens and Bird, 2015; Mollick, 2014).

Furthermore, discussions around altruistic motivations of individual backers in sustainability-oriented crowdfunding have evolved (e.g., Cox et al., 2018; Nakagawa and Kosaka, 2022; Testa et al., 2020). In comparison to the warm-glow theory, altruism refers to the desire to help others, even if this comes at a personal cost such as time or money (Gleasure and Feller, 2016). By examining backers' altruistic motivation in the crowdfunding process and contrasting it to egoistic motivation, Song et al. (2022) find that contributions of backers in donation-based crowdfunding are predominantly driven by egoism, whereas, over the course of a campaign, altruistic factors become important to reach the funding goal. Comparing altruistic and strategic motives in prosocial lending-based crowdfunding, Berns et al. (2020) find that backers follow mostly strategic motives related to quality and risk. Hence, the interplay of different contrasting types of motives influences individuals in sustainability-oriented crowdfunding.

Sustainability-related biases, framing effects, and behavioral factors. Further, scholars find that in the context of sustainability, biases, framing effects, and other related behavioral factors can influence the decision making of individual crowdfunding stakeholders (Jenq et al., 2015; Kuo et al., 2022; Maehle et al., 2021). For example, Bento et al. (2019) argue that the individuals' bounded rationality (Simon, 1955), referring to the limited availability of information and time of backers,

constrains them from fully evaluating risk–return relations in sustainability-oriented crowdfunding. Hence, they deviate from rational decision-making behavior and therefore accept lower financial returns in the context of sustainable ventures (Bento et al., 2019). In addition, backers consider the presented social and ecological benefits of sustainable campaigns as references and cognitive frames for their decision making and may respond differently to variable framing of objectively similar campaign contents (Kuo et al., 2022).

Building on framing theory, Nielsen and Binder (2021) find that reward-based campaigns with altruistic frames have a higher likelihood of funding than campaigns with ecological or egoistic frames and that frames need to be aligned with backers' values. Defazio et al. (2021) corroborate these findings, suggesting a positive relationship between social framing and successful crowdfunding, if the framing is not too strongly emphasized. Moreover, other scholars find that female or rural framing increases the likelihood of funding success in the context of prosocial lending-based crowdfunding (Figuroa-Armijos and Berns, 2022). In addition, the responses to framing can be influenced by the backers' characteristics: Hornuf and Siemroth (2023) reveal that older backers are more attracted by a framing that highlights financial returns. Results further indicate that a lender's decision to crowdfund is linked to the identification with sustainable entrepreneurs (e.g., Riggins and Weber, 2017).

4.2.2. Transactional level

Transactional-level mechanisms encompass the interactions and exchange processes between entrepreneurs and the crowd of backers via

Table 2
Overview of clustering into major theoretical levels.

Aggregate themes	Higher-order themes	Descriptive themes (exemplary manifestations)	Examples
INDIVIDUAL LEVEL	Mixed motives of sustainability-oriented entrepreneurs and backers	<ul style="list-style-type: none"> • Influence of intrinsic and extrinsic motivation • Relevance of warm-glow effect • Altruistic vs. egoistic motives 	<p>Allison et al. (2013); Bagheri et al. (2019); Kollenda (2022); Nakagawa and Kosaka (2022); Penz et al. (2022); Song et al. (2022); Zhang et al. (2022)</p>
	Sustainability-related biases, framing effects, and behavioral factors	<ul style="list-style-type: none"> • Behavior of sustainability-oriented crowd-funding backers compared to rational economic stakeholders • Impact of framing with regard to different sustainability dimensions 	<p>Bento et al. (2019); Defazio et al. (2021); Figueroa-Armijos and Berns (2022); Hornuf and Siemroth (2023); Kuo et al. (2022); Nielsen and Binder (2021)</p>
TRANSACTIONAL LEVEL	Campaign signals in sustainability-oriented crowdfunding	<ul style="list-style-type: none"> • Sustainability-related campaign attributes as quality signals • Relative influence of campaign characteristics in sustainability-oriented crowdfunding 	<p>Anglin et al. (2020); Gama et al. (2023); Hörisch (2019); Mejia et al. (2019); Moss et al. (2015); Saluzzo and Alegre (2021); Siebeneicher and Bock (2022); Pabst et al. (2021); Pan and Dong (2023); O'Reilly et al. (2021)</p>
	Role of social interaction in sustainability-oriented crowdfunding	<ul style="list-style-type: none"> • Transaction dynamics within social networks • Role of social connections and group membership • Impact of funding progress and goal proximity 	<p>Butticè and Useche (2022); Chung et al. (2021); Cheng et al. (2019); Cox et al. (2022); Dai and Zhang (2019); Davies and Giovannetti (2022); Li et al. (2020)</p>
INSTITUTIONAL LEVEL	Link between institutional factors and sustainability-oriented crowdfunding	<ul style="list-style-type: none"> • Role of institutional logic with regard to sustainability orientation • Linkage to external ecological, social, or economic conditions 	<p>Butticè et al. (2019); Langley et al. (2020); Logue and Grimes (2022); Manning et al. (2022); Presenza et al. (2019); Vismara (2019)</p>
	Link between cultural factors and	<ul style="list-style-type: none"> • Impact of cultural differences 	<p>Burtch et al. (2014); Bento et al. (2019);</p>

Table 2 (continued)

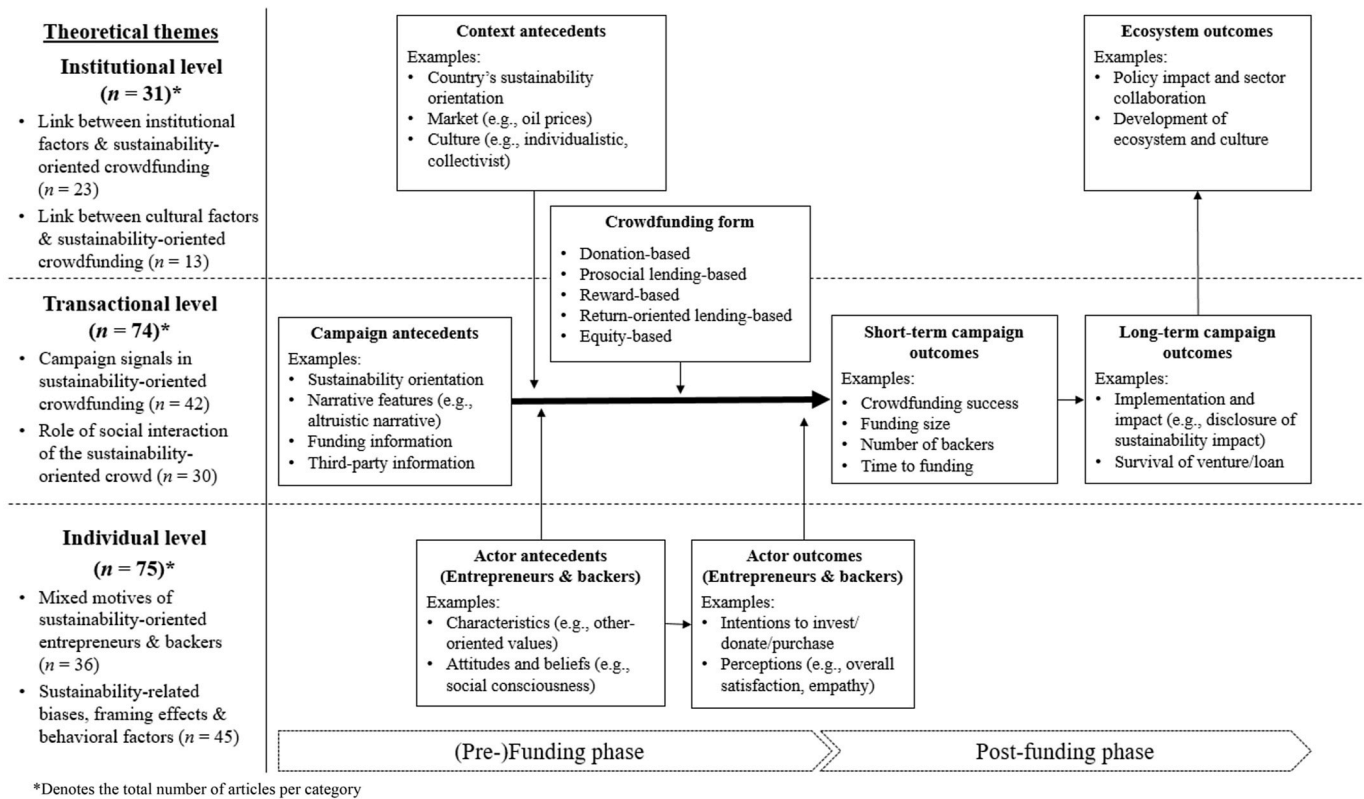
Aggregate themes	Higher-order themes	Descriptive themes (exemplary manifestations)	Examples
	sustainability-oriented crowdfunding	<p>opposed to cultural alignment</p> <ul style="list-style-type: none"> • Differences of individualistic or collectivistic cultures • Linkage to cultural and communal factors 	<p>Jancenelle et al. (2019); Quigley and Patel (2022); Rama et al. (2022)</p>

the platform. Another large part of the research in the reviewed literature deals with the transactional level ($n = 74$), focusing on *campaign signals in sustainability-oriented crowdfunding* ($n = 42$) using information asymmetry and signaling theory along with *the role of social interaction* ($n = 30$) based on social network theories. Research indicates that attributes that signal quality and trust in the interaction between backers and entrepreneurs are highly relevant in sustainability-oriented crowdfunding (e.g., Pabst et al., 2021; Saluzzo and Alegre, 2021). In addition, crowdfunding cultivates a community of backers and enables social engagement between backers and entrepreneurs, providing a sense of group belonging that can be intensified through common sustainability goals (Vismara, 2019).

Campaign signals in sustainability-oriented crowdfunding. Theories related to information asymmetries and signaling (Spence, 1973) are those most frequently applied by the reviewed studies and drawn upon in all forms of crowdfunding, especially reward-based and prosocial lending-based crowdfunding (e.g., Cumming et al., 2017; Hoos, 2022; Jancenelle et al., 2018). Crowdfunding represents a situation where one party (i.e., the sustainable entrepreneur) has more information than the other (i.e., the backer). In the sustainability context, information asymmetries not only refer to the viability of the business but also to the implementation of sustainable measures. Campaign-related attributes serve as (low-cost) signals that indicate whether a sustainable venture is potentially successful, which can be critical to receiving capital from the crowd (Moss et al., 2015). Scholars highlight sustainability-related signals to assess the quality and legitimacy of crowdfunding campaigns (e.g., Anglin et al., 2020; Hörisch, 2019).

Literature frequently emphasizes the role of third-party endorsements (De Crescenzo et al., 2022; Gama et al., 2023; Pabst et al., 2021). Particularly in prosocial lending-based crowdfunding, third-party endorsements of external microfinance institutions or nonprofit institutions are found to have a significant impact on crowdfunding outcomes: Anglin et al. (2020) show that the financial and social performance of microfinance institutions positively influence crowdfunding outcomes, whereby social performance shows a dominant effect. Similarly, Saluzzo and Alegre (2021) stress that pro-bono endorsements achieve more success compared to financial endorsements. Further, studies show that government endorsements in form of seals (Pabst et al., 2021) or other indications of government involvement (Hong and Ryu, 2019) are related to crowdfunding success, alluding to a key role of institutional legitimation and the role of governments in shaping the playing field of sustainability-oriented crowdfunding.

In addition, the reviewed studies confirm the signaling relevance of project attributes from research on traditional commercial crowdfunding, for example, regarding the visual presentation of campaigns (e.g., videos, Dorfleitner et al., 2021; Lagazio and Querci, 2018), campaign communication (e.g., project updates, Mejia et al., 2019), or the relevance of campaign funding characteristics (e.g., target funding amount, Bento et al., 2019). Considering return-oriented lending-based and equity-based crowdfunding, O'Reilly et al. (2021) show that different



Note: The frequency of categories and themes are presented in parentheses.

Fig. 6. Multilevel framework of the sustainability-oriented crowdfunding process.

Note: The frequency of categories and themes are presented in parentheses.

financial measures (e.g., total assets, liquidity) are important signals during and after the funding period. Regarding long-term outcomes, Hörisch (2019) underlines the relevance of sustainability-related signals, such as the ability and willingness to implement actions with ecological impact, for maintaining backer trust.

Role of social interaction in sustainability-oriented crowdfunding. Online crowdfunding transactions reduce the distance between entrepreneurs and backers as well as their social networks (Butticè and Useche, 2022). Hence, the social interaction within networks plays an important role for research on funding dynamics in sustainability-oriented crowdfunding (e.g., Cheng et al., 2019; Li et al., 2020). Researchers use social capital theory (Bourdieu, 1986; Putnam, 1995) to explain these interactions related to crowdfunding transactions in the sustainability context (e.g., Banerjee, 2022; Davies and Giovannetti, 2022; Guillochon, 2022). For example, studies highlight the positive influence of social network size and network links for the match between backers and entrepreneurs in donation-based crowdfunding (Cheng et al., 2019; Li et al., 2020). In this context, Butticè and Useche (2022) find that entrepreneurs who immigrated to another country collect less funding from backers in their host country, but more from those in other countries, with social capital increasing this effect.

Other studies applied the goal gradient or goal setting theory (Hull, 1934) to examine the effect of the funding progress on the collective behavior of backers in the context of sustainability-oriented crowdfunding (e.g., Li and Wang, 2019). According to goal gradient or goal setting theory, backers react to the target amount of crowdfunding campaigns and increase their efforts if the threshold or the collective funding goal of the campaign is approached (Cryder et al., 2013). Dai and Zhang (2019) show that the prosocial nature of a crowdfunding project amplifies this effect. Comparing different crowdfunding platforms, Cox et al. (2022) reveal more pronounced variation in terms of the positive relationship of funding and goal proximity for

donation-based compared to equity-based crowdfunding. In addition, Lagazio and Querci (2018) highlight the importance of social group membership for interactions in sustainability-oriented crowdfunding and refer to social identity theory (Tajfel et al., 1979) to show that backers tend to behave according to their social identity with groups in the crowd.

4.2.3. Institutional level

Third, institutional-level mechanisms refer to institutional and cultural theories on a higher level. Compared to the individual and transactional level, fewer articles (n = 31) in our review focus on or involved the institutional level, examining the link between institutional factors and sustainability-oriented crowdfunding (n = 23) associated with markets and regulatory frameworks, as well as the link between cultural factors and sustainability-oriented crowdfunding (n = 13) associated with values and beliefs in a given community.

Link between institutional factors and sustainability-oriented crowdfunding. Building on institutional logic, Vismara (2019) argues that, in equity-based crowdfunding, non-professional backers who are embedded in the community logic are more attracted by sustainability-oriented crowdfunding campaigns compared to professional investors who follow the market logic. The author explains this observation with the commitment to communal values and beliefs in trustworthiness and reciprocity (Vismara, 2019). Furthermore, Butticè et al. (2019) apply an institutional lens to show how the country's ecological sustainability orientation influences the creation of respective crowdfunding campaigns in reward-based crowdfunding. Cumming et al. (2017), also focusing on the reward-based context, find that cleantech crowdfunding is more common when oil prices are rising, denoting an important role for external conditions (e.g., market aspects). Hence, the context and the environment linked to countries or markets may influence crowdfunding actors and dynamics throughout

Table 3
Overview of clustering into major antecedent themes.

Aggregate themes	Higher-order themes	Descriptive themes (exemplary manifestations)	Examples
ACTOR	Characteristics	Age, gender, personality, personal values	Allison et al. (2022); Chen et al. (2017); Nielsen and Binder (2021); Tenner and Hörisch (2021)
	Attitudes and beliefs	Social consciousness, opinion on sector, impact	Bourcet and Bovari (2020); Kim and Hall (2021b); San Martín et al. (2021)
	Perceptions	Perceptions of risk, transparency, effectiveness	Bourcet and Bovari (2020); Kim and Hall (2021a); Liang et al. (2023); San Martín et al. (2021); Wang et al. (2019)
	Social ties	Social media links, social network	Cheng et al. (2019); Li et al. (2020); Wang et al. (2019)
CAMPAIGN	Sustainability orientation	Social orientation, environmental orientation, sustainability orientation	Calic and Mosakowski (2016); Hörisch and Tenner (2020); Liang et al. (2023); Moss et al. (2018); Shevchenko et al. (2020); Vismara (2019)
	Linguistic and narrative features	Altruistic narrative, affect-related language, self-centered attributes, storytelling	Allison et al. (2015); Moss et al. (2015); Lee et al. (2019); Parhankangas and Renko (2017); Robiady et al. (2021); Testa et al. (2020)
	Funding characteristics	Target funding amount, funding threshold Loan/reward characteristics	Anglin et al. (2020); Bento et al. (2019); Cox et al. (2022); Dai and Zhang (2019); Slimane and Rousseau (2020); Xiang et al. (2019)
	Project presentation	Visuals, videos	Gleasure and Feller (2016); Lagazio and Querci (2018)
	Communication	Project updates, comments	Hong and Ryu (2019); Mejia et al. (2019)
	Social shares	Social media links, shares	De Crescenzo et al. (2020); Slimane and Rousseau (2020); Zhou and Ye (2019)
	Third-party information	Third-party endorsements, indicator of external support, performance microfinance institutions	Anglin et al. (2020); De Crescenzo et al. (2022); Dorfleitner et al. (2020); Gama et al. (2023); Hong and Ryu (2019); Saluzzo and Alegre (2021)
Team/venture features	Number of founders, employees, team gender	Bento et al. (2019); Gafni et al. (2021); Slimane and Rousseau (2020)	
CONTEXT	Geographical and cultural aspects	Geographic location, context, individualistic vs. collectivist society	Burtch et al. (2014); Brent and Lorah (2019); Chen et al. (2017); Langley et al. (2020); Quigley and Patel (2022)
	Institutional environment	Policy, governance, legal conditions, institutional structure	Tsai and Wang (2019); Logue and Grimes (2022); Presenza et al. (2019)
	Market aspects	Rising oil prices, country's sustainability orientation	Butticè et al. (2019); Cumming et al. (2017)

Table 4
Overview of clustering into major outcomes themes.

Aggregate themes	Higher-order themes	Descriptive themes (exemplary manifestations)	Examples
ACTOR	Intentions to back campaign	Intention to invest/donate, purchase intention	Ba et al. (2020); Behl and Dutta (2020); Li et al. (2020); Kuo et al. (2022); Wehnert et al. (2019)
	Perceptions	Overall satisfaction, empathy of the crowd	Bergmann et al. (2021), Carè et al. (2018); Zheng et al. (2017)
SHORT-TERM CAMPAIGN	Crowdfunding success	Rate of financing, attainment of funding target, fully funded (yes/no)	Allison et al. (2013); Anglin et al. (2022); Berns et al. (2020); Hörisch (2015); Moss et al. (2015); Nielsen and Binder (2021); Testa et al. (2020)
	Time to funding	Time until loan is funded	Allison et al. (2015); Dai and Zhang (2019); Dorfleitner et al. (2021), Jenq et al. (2015); Gafni et al. (2021)
	Funding size	Funding amount, incremental pledge amount, average contribution	Anglin et al. (2022); Brent and Lorah (2019); Mejia et al. (2019); Shevchenko et al. (2020); Slimane and Rousseau (2020); Zhou and Ye (2019)
	Number/type of backers	Number of backers, incremental number of backers, type of backers	Anglin et al. (2022); Li et al. (2020); Ryu and Kim (2018); Slimane and Rousseau (2020); Vismara (2019); Xiang et al. (2019)
LONG-TERM CAMPAIGN	Financial success	Financial return rate on project, external equity	Bento et al. (2019); O'Reilly et al. (2021)
	Implementation and impact	Project implementation and awareness Disclosure of sustainability impact	Gooch et al. (2020); Hörisch (2019), Zheng et al. (2017) Hörisch (2019)
	Survival	Survival of venture, loan survival	Bento et al. (2019); Dorfleitner et al. (2021); Riggins and Weber (2017)
ECOSYSTEM	Impact on policies and collaboration Development of ecosystem and culture	Policy, agenda-setting impact, collaboration, support Common culture, social entrepreneurship ecosystem	Carè et al. (2018); Tsai and Wang (2019); Logue and Grimes (2022) Carè et al. (2018); Langley et al. (2020); Presenza et al. (2019)

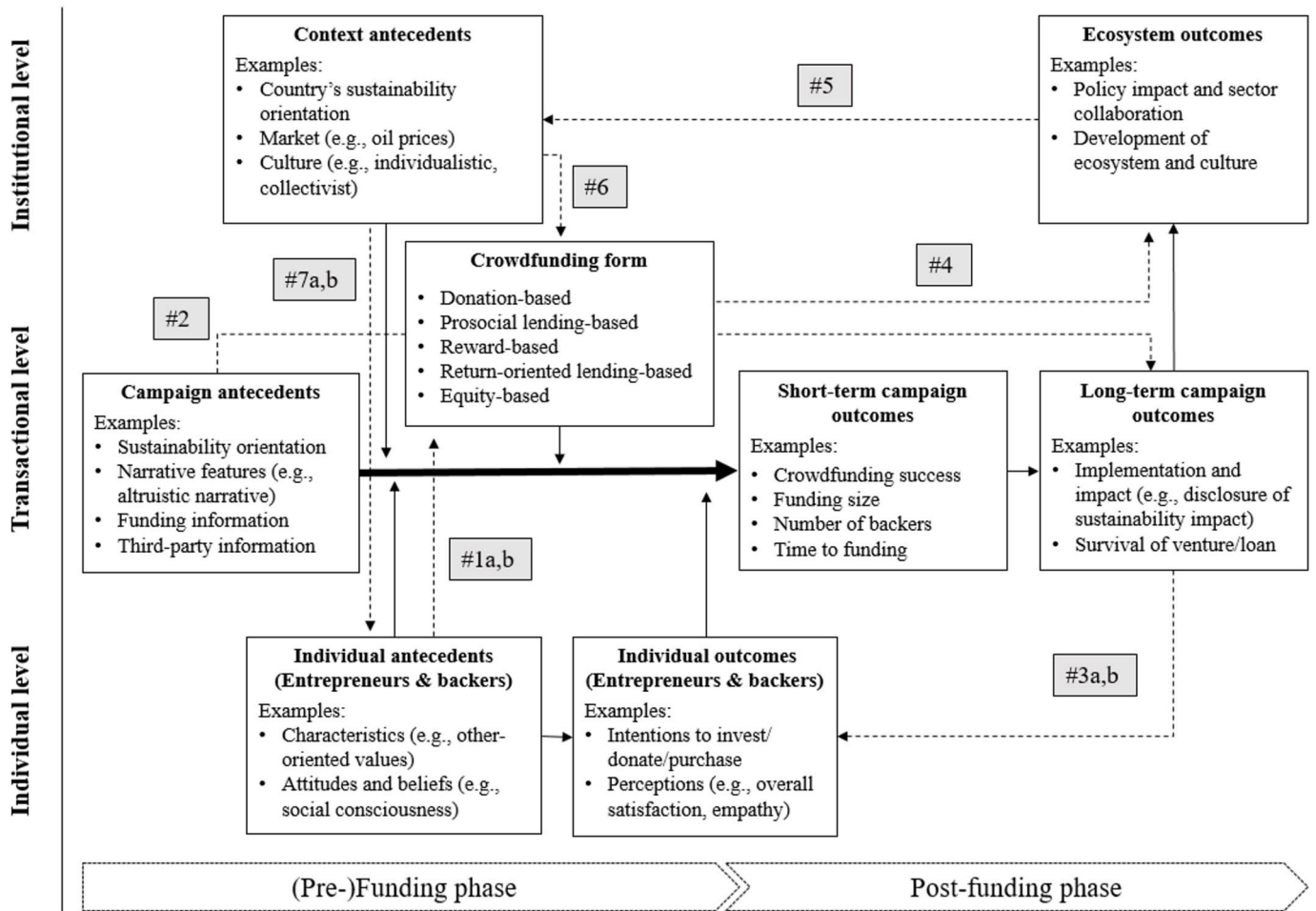


Fig. 7. Research gaps related to the sustainability-oriented crowdfunding process.

the sustainability-oriented crowdfunding process.

In addition, Manning et al. (2022) point out narrative strategies for sustainable entrepreneurs in reward-based crowdfunding to leverage institutional relationships and underline the interrelatedness of local entrepreneurial contexts and local ecosystems. These local entrepreneurial ecosystems consist of stakeholders such as incubators, accelerators, universities, the media, and a network of enterprises and professionals including backers, who form part of a support community (Manning et al., 2022). Similarly, Logue and Grimes (2022) emphasize the relevance of an institutional infrastructure that enables collaboration across different sectors and increases the number of users without compromising on societal goals for donation-based crowdfunding. With regard to long-term outcomes beyond the crowdfunding success, scholars highlight that sustainability-oriented crowdfunding activity influences the development of respective communities and thus the growth of sustainable entrepreneurship ecosystems that can exert an influence on policies and regulations (Langley et al., 2020; Presenza et al., 2019).

Link between cultural factors and sustainability-oriented crowdfunding. Although research on sustainability-oriented crowdfunding is growing in different countries, surprisingly little research has been conducted to date on cultural mechanisms. The findings of Burtch et al. (2014) suggest that cultural differences between the backers' and the entrepreneurs' countries negatively influence funding activity, while Jancenelle et al. (2019) conclude that the entrepreneurs' cultural alignment with their own country affects funding speed. Furthermore, Quigley and Patel (2022) find a gender effect in prosocial lending-based crowdfunding that is moderated by gender egalitarianism in the home culture. Cultural factors also play a role in donation-based crowdfunding success, as highlighted by Rama et al. (2022), with individualistic and long-term oriented cultural characteristics increasing the positive impact of expressing a religious and social orientation on the likelihood of success. In return-oriented lending-based crowdfunding, Bento et al. (2019) demonstrate that the long-term orientation and individualism of project host countries can have a positive influence on financial returns of campaigns for cleantech ventures, while revealing that collective goals such as environmental preservation seem to be less prioritized in individualistic cultures compared to returns.

5. Systemization of research gaps and future research avenues

While our review sheds light on the extensive and fragmented literature on the topic of sustainability-oriented crowdfunding and highlights major emerging theoretical themes for a better understanding, it also shows that research findings are mostly limited to short-term outcomes related to the funding success. Further, our analysis reveals that differences in the results regarding the effects of theoretical mechanisms and the relative importance of crowdfunding antecedents across the diverse crowdfunding forms may benefit from further clarification. The developed framework thus helps integrate different research levels from the literature to fully understand the mechanisms at work within the bigger picture of the phenomenon (Saebi et al., 2018). In this vein, it provides the foundational structure to discuss diverse theoretical themes as well as related future research avenues with regard to the context of different crowdfunding forms, the institutional level as well as the long-term perspective in general. Therefore, in Fig. 7 below, we extended our initial framework (from Fig. 6) by adding the illustration of under-researched linkages between the identified levels and related elements in the crowdfunding process. With this approach, we offer paths for additional exploration that emerge from the systematically identified research gaps in this review (see Volberda et al., 2010).

Based on these research gaps, we derive future research avenues regarding the following topics: (1) the effects of individual antecedents on the participation in different crowdfunding forms; (2) the impact of campaign antecedents on long-term campaign outcomes; (3) the effects of long-term campaign outcomes on individual outcomes with respect to the post-funding phase; (4) the interrelation of crowdfunding forms and the sustainable entrepreneurship ecosystem; (5) the impact of the ecosystem on shaping institutional environments and contexts; (6) the effects of contextual and environmental factors on the development and prevalence of different crowdfunding forms; and (7) the impact of institutional and cultural factors on individual actors. In the following we discuss each identified linkage and its corresponding challenges to outline several fruitful paths for future research.

Linkages between individual antecedents and crowdfunding forms. Research avenue 1 focuses on exploring the effects of individual antecedents on the actors' participation in different crowdfunding forms from the perspective of (a) entrepreneurs and (b) backers in sustainability-oriented crowdfunding.

Extant research provided relevant findings regarding the motivational and behavioral mechanisms of individuals, especially backers, by examining campaign-related antecedents and outcomes on crowdfunding platforms (e.g., Dorfleitner et al., 2020; Gleasure and Feller, 2016). However, our review still reveals ambiguities and ongoing debates about the relevance of, for example, extrinsic and intrinsic motivations (e.g., Allison et al., 2015; Kollenda, 2022) or altruistic and warm-glow motivations (e.g., Allison et al., 2013; Berns et al., 2020), as well as the extent of rational behavior by crowdfunding actors (e.g., Bento et al., 2019; Yoo et al., 2023). In this regard, Cox et al. (2022) point toward the role of different motivations and goals in relation to distinct crowdfunding forms. Hence, analyzing the linkage between individual antecedents and the participation in particular crowdfunding forms could substantially contribute to our understanding of motivational and behavioral effects in sustainability-oriented crowdfunding. Fig. 5, for example, shows that self-determination and cognitive evaluation theory are still under-researched in return-oriented lending-based and equity-based crowdfunding. Contrasting several crowdfunding forms (e.g., prosocial lending-based vs. return-oriented lending-based vs. equity-based) while factoring in the company's sustainability orientation (i.e., social or environmental) may expand our knowledge of the influence of self-selection on crowdfunding platforms (e.g., Cox et al., 2022). Literature on sustainable entrepreneurship suggests that social entrepreneurship research largely emphasizes tradeoffs between economic and social motives, whereas ecological entrepreneurship research emphasizes synergies (Vedula et al., 2022). Examining this perspective more closely could round out our current knowledge, which also implies a larger shift toward the application of complementary experimental and qualitative studies to enrich findings of secondary data analyses. Such methods could provide a more fine-grained level of detail and help us to better understand the motives and behavior of entrepreneurs and backers in the context of sustainability. In particular, the entrepreneurs' perspective is rarely studied, probably due to limited access to entrepreneurs and their data beyond publicly available campaign information.

Consideration of long-term campaign outcomes. Research avenue 2 suggests to extend the study of the relationship between campaign antecedents and outcomes to a long-term perspective.

Our literature analysis reveals a large focus on the study of signaling and social interaction mechanisms in relation to short-term campaign outcomes. Although investigating relevant outcomes such as funding success or funding amount explains a vital part of the transactional crowdfunding process, it neglects the view beyond the funding phase.

After the campaign is successfully funded, it remains unclear whether the funded project will be successfully implemented to achieve the promised non-financial benefits (e.g., CO₂ reduction) or, if applicable, the underlying financial goals (e.g., a successful exit). However, to date only a handful of studies analyze the relationship between particular campaign signals and long-term outcomes in the context of sustainability (e.g., Bento et al., 2019; O'Reilly et al., 2021). If the perceived quality and legitimacy signals of the crowdfunding campaigns are not reflected in the impact of the venture, this may provoke moral hazard in the long term (e.g., Hörisch, 2019). Particularly for sustainability-oriented ventures, which promise to impact society or the environment positively, it is crucial to extend this limited perspective to capture the long-term contribution of the venture (e.g., Gooch et al., 2020). Therefore, future research should include additional long-term measures, such as reporting activity, follow-up financing rounds, or the survival of the venture, to better explore the relationship between campaign antecedents and outcomes as well as their potential long-term impacts in the post-funding phase.

Linkage between long-term campaign outcomes and individual outcomes. Research avenue 3 concentrates on exploring the effects of long-term campaign outcomes on the individual motivation and behavior from the perspective of (a) sustainability-oriented entrepreneurs and (b) sustainability-oriented backers in the post-funding phase.

In relation to capturing long-term outcomes, another important path for future research lies in exploring the individual motivation and behavior in response to these outcomes. For example, the delivery of financial or non-financial returns or the communication of success and failure of the venture implementation may have a substantial impact on the subsequent crowdfunding behavior of individuals. Especially in reward-based, lending-based, or equity-based crowdfunding, backers expect the promised product rewards or financial repayments (Signori and Vismara, 2018; Vanacker et al., 2019). Examining the post-funding phase could provide insights into how signaling and information asymmetry effects related to project outcomes influence backers' motivational and behavioral responses. Further, researchers have recognized serial crowdfunding as a common behavioral pattern of entrepreneurs (e.g., Piening et al., 2020). The success or failure of crowdfunding campaigns may impact whether sustainable entrepreneurs consider the repeated launch of crowdfunding campaigns on a given platform. Enlightening the role of communal behavior, social networks, social capital, and social identity may further advance our understanding of mechanisms in the post-funding phase. In this regard, the influence of the chosen crowdfunding form also deserves particular research attention to examine the interrelatedness of campaigns and individuals.

Influence of crowdfunding forms on the sustainable entrepreneurship ecosystem and institutional structures. Research avenue 4 refers to exploring the interrelation between crowdfunding forms and the sustainable entrepreneurship ecosystem involving the development of collaborative networks, institutional support initiatives, and policy-making.

As Calic and Mosakowski (2016) point out, crowdfunding forms are continuously evolving and innovating their funding processes, whereas traditional sources of funding remain relatively stable in their processes. Crowdfunding is not only influenced by external factors, such as institutional settings, but also by the large crowd of backers and entrepreneurs that can democratically move the targets of the crowdfunding industry (Cumming et al., 2021). The practice of sustainability-oriented crowdfunding can significantly shape the sustainable entrepreneurship ecosystem and thereby influence policy-making (e.g., Carè et al., 2018; Logue and Grimes, 2022). Hence, providing insights into the

interrelation of different forms of sustainability-oriented crowdfunding and support practices or collaboration networks represents another promising research avenue. With advancing technology around financial transactions on crowdfunding platforms and the development of associations and initiatives around financing sustainable ventures, more data will become available at the aggregate level. Thus, researchers could increasingly explore the influence of different crowdfunding forms on the sustainable entrepreneurship ecosystem. Here, recent work by Logue and Grimes (2022) can provide helpful guidance regarding the governance of crowdfunding platforms. Future research could assess the impact on community building or the introduction of policies that incentivize funding for sustainability-related projects on particular platforms.

Shaping mechanisms on an institutional level. Research avenue 5 focuses on exploring the impact of the sustainable entrepreneurship ecosystem on shaping institutional environments and contexts.

Manning et al. (2022) highlight the importance of the local entrepreneurial ecosystems involving communities of incubators, accelerators, universities, the media, and networks of professionals who support and promote the practice of sustainability-oriented crowdfunding. In this context, insights into how emerging or evolving policies and sector collaboration contribute to the development of these different types of supporting communities and institutions can lead to a better understanding of the novel institutional environment (Calic and Mosakowski, 2016). Of interest here is the question of how are institutions, governments, markets, as well as cultures and societies shaped through sustainability-oriented crowdfunding and vice versa. Further, the societal legitimation and adaptation of support structures for sustainable entrepreneurs and sustainability-oriented backers represents a relevant research avenue. As the institutional environment of alternative investments co-exists alongside the traditional financial institutional environment, scholars could compare both and explore relevant interrelations.

The interrelatedness between institutions, culture, and crowdfunding forms. Research avenue 6 focuses on exploring the effects of contextual and environmental factors on the development and prevalence of different crowdfunding forms in sustainability-oriented crowdfunding.

The early emergence of prosocial lending (e.g., Kiva) was an outgrowth of institutional voids in developing countries (where financial systems and local entrepreneurial ecosystems are comparatively underdeveloped) and was eventually adopted globally. Thus, context, environment, and society with regard to national settings play a crucial role in the development of crowdfunding as a source of entrepreneurial financing for sustainable ventures (e.g., Bento et al., 2019; Buttice et al., 2019; Vismara, 2019). Institutional and cultural mechanisms exert a significant influence on the development particular forms of sustainability-oriented crowdfunding in different countries. Our descriptive analysis, for example, revealed that the majority of studies from the P.R.C. examined donation-based crowdfunding (10 of the 15 articles). This is due not only to the later launch of crowdfunding platforms in the P.R.C. but also to the dominance of the state, which complicates efforts of other platforms to obtain legal permission to operate. In the U.S., on the other hand, the JOBS (Jumpstart Our Business Startups) Act enabled the establishment of equity crowdfunding in 2012 (SEC, 2012). Historically, only accredited investors could buy stakes in startups, requiring significant capital outside the reach of the general public. Also, the U.S. is a consumer-driven culture where going into debt is socially accepted, facilitating the early adoption of lending-based crowdfunding. Hence, the regulatory framework and culture of countries can influence the extent to which particular crowdfunding models

Table 5
Potential research questions derived from each research avenue.

Possible research questions	Theoretical lenses
#1a <ul style="list-style-type: none"> • How and why do sustainable entrepreneurs choose a particular crowdfunding form? • What is the influence of the venture’s sustainability orientation on the engagement in a particular crowdfunding form? • To what extent are entrepreneurs in return-oriented lending- and equity-based crowdfunding intrinsically motivated? 	Self-determination theory/Cognitive evaluation theory Warm-glow theory
#1b <ul style="list-style-type: none"> • To what extent are backers in these two crowdfunding forms intrinsically motivated? • How and why do backers choose a particular crowdfunding form to support sustainability-oriented ventures? 	Altruism Framing theory Behavioral biases
#2 <ul style="list-style-type: none"> • To what extent does campaign sustainability orientation influence the venture survival? • What is the relative impact of campaign signals on short- vs. long-term crowdfunding outcomes? • What campaign attributes are indicative of progress on reporting practices? 	Information asymmetry/Signaling theory Social capital/Network theory
#3a <ul style="list-style-type: none"> • What is the impact of a campaign’s success or failure on sustainable entrepreneurs’ (future) crowdfunding participation? 	Social identity theory
#3b <ul style="list-style-type: none"> • How does serial sustainability-oriented crowdfunding behavior differ between various crowdfunding forms? • How does the delivery of (non-)financial returns impact subsequent backing behavior? • To what extent does the communication of success or failure regarding the venture implementation serve as a signal? • What is the role of community and networks in relation to success and failure? 	
#4 <ul style="list-style-type: none"> • How do different crowdfunding forms shape the sustainable entrepreneurship ecosystem? • What is the impact of sustainability-oriented crowdfunding on community building and public–private relationships? • How do different crowdfunding forms influence the development of institutional support structures? 	Institutional theory Cultural theory
#5 <ul style="list-style-type: none"> • How does the sustainable entrepreneurship ecosystem contribute to the emergence of different types of institutions? • How are institutions, markets, cultures, and societies shaped through sustainability-oriented crowdfunding? • To what extent do arising institutions co-exist alongside the traditional financial institutional environment? 	
#6 <ul style="list-style-type: none"> • How do contextual attributes (e.g., climate change) contribute to the development of sustainability-oriented crowdfunding? • How do national contexts influence the dominance of crowdfunding forms as financing vehicles for sustainable ventures? 	
#7a <ul style="list-style-type: none"> • How do sociocultural factors shape entrepreneurs’ motives, beliefs, and goals in sustainability-oriented crowdfunding? • How do country-level differences influence campaign creation with social or ecological sustainability orientations? 	Self-determination theory/Cognitive evaluation theory Warm-glow theory
#7b <ul style="list-style-type: none"> • Are backers more likely to support sustainability-oriented ventures that deal with concerns held in their culture? • What is the effect of value shifts in the culture on backers participating in sustainability-oriented crowdfunding? 	Altruism Framing theory Behavioral biases

dominate as financing vehicles for sustainable enterprises (e.g., Quigley and Patel, 2022). However, research rarely explores the mechanisms underlying the popularity and growth of different forms of sustainability-related crowdfunding across countries.

Institutional and cultural impact on individual antecedents. Research avenue 7 refers to exploring the impact of the institutional and cultural factors on (a) entrepreneurs and (b) backers in sustainability-oriented crowdfunding.

Although researchers emphasize that the sociocultural environment, national institutional settings, as well as the economic market situation play important roles in shaping individuals’ goals, beliefs, and drivers related to sustainability-oriented crowdfunding (e.g., Buttice et al., 2019), both mechanisms have so far received relatively little research attention. Hence, more studies on how different national and cultural contexts influence the individual crowdfunding behavior of sustainable entrepreneurs and backers would be highly valuable to provide a complete picture of their motives to collect capital through crowdfunding. For example, recent crowdfunding research indicates that the relevance of sustainability aspects is related to the countries’ power distance levels, and that the platforms’ selection criteria with regard to environmental, social and governance (ESG) aspects have a positive impact on their survival (Cumming et al., 2024). Hence, future examinations could especially focus on the impact of country-level differences for campaigns with social or ecological sustainability orientations. Individuals in developing nations, for instance, could tend to emphasize solutions to social problems that are present in their environment, such as poverty elimination, over problems that are not in plain sight (e.g., climate change). Similarly, collectivist (group-oriented) societies may have advantages when pursuing societal sustainability goals. In

addition, the political and economic situation (e.g., gas shortage, migration) on a national level may effect individuals’ priorities in creating or funding sustainability-oriented crowdfunding campaigns. Another fruitful research avenue could explore the influence of a cultural value shift on the behavior of individuals with regard to different crowdfunding forms.

Table 5 provides some possible research questions derived from each research avenue. In addition, the table includes the related theoretical lenses to provide additional guidance for future research efforts in sustainability-oriented crowdfunding.

6. Conclusion

Sustainability-oriented crowdfunding has become an important research field, given the current societal needs to address both the growing environmental and social challenges posed by climate change and migration as well as the difficulties of sustainable ventures in obtaining financing to achieve their goals (Anglin et al., 2022). The field combines concepts from research on sustainable entrepreneurship with the complex interplay of different dimensions in the crowdfunding process and extends across various research disciplines. Therefore, a better understanding of the mechanisms involved in the crowdfunding process can contribute to the development of the young research stream. Our integrative literature review extends previous reviews (e.g., Böckel et al., 2020; Salido-Andres et al., 2021) by proposing a holistic framework that integrates (1) fundamental theoretical research levels (i.e., individual, transactional, and institutional), (2) multilevel antecedents, crowdfunding process dimensions, and short- and long-term outcomes, and (3) differentiates between the different crowdfunding forms

relevant for sustainability-oriented crowdfunding. In alignment with the aims of this review, we outline the research developments across multiple disciplines and uncover theoretical themes related to the different levels of sustainability-oriented crowdfunding. By systemizing the missing linkages between these different levels, our framework can be used to overcome disciplinary boundaries and guide future research (see Table 5). As our descriptive findings indicate, specifically four research areas—information management, entrepreneurship and small business management, sector studies, and innovation—have gained importance for sustainability-oriented crowdfunding. Therefore, we suggest that future research can combine research efforts and theoretical lenses from these neighboring domains. This would allow scholars to exploit the multidisciplinary nature of the field and increase the explanatory power of their studies. Taking such a multidisciplinary view may inspire novel conceptualizations and practical recommendations for sustainability-oriented crowdfunding (Cicchello et al., 2023).

From the practitioners' point of view, our work has implications for sustainable entrepreneurs, platforms, and regulators. First, our framework can help entrepreneurs better understand how to approach and motivate the specific crowds that back sustainable projects, because capital acquisition is essential for the development and growth of sustainable ventures. In other words, they can utilize the theoretical insights linked to mixed motives, sustainability-related biases, framing effects, or behavioral factors to optimize and align their communication to backers in the crowd with regard to the variety of crowdfunding forms and related signaling and interaction effects. Second, both established crowdfunding platforms and new specialized platforms targeted at sustainable ventures can gain a holistic view of the sustainable crowdfunding field across levels and crowdfunding forms, which can help them to improve platform design to better attract backers and sustainable entrepreneurs and engage in cross-platform or institutional cooperation in an informed manner. Third, in the spirit of promoting both economic and societal welfare, our analysis supports the efforts of policy-makers to provide tailored institutional support, crowdfunding regulations, and cross-sector collaboration that foster and incentivize the development of this market category with the aim of contributing to sustainable development within our society (Allison et al., 2022). Yet our findings indicate that sustainability-oriented crowdfunding is highly contingent upon national and international contexts. Hence, the development and refinement of sensible policies and regulations is essential to support sustainability-oriented crowdfunding. For instance, the JOBS⁶ Act in the U.S., which established the legal framework for equity crowdfunding in 2012 and was expanded in 2016 will undoubtedly face further refinements. Similarly, in Europe, the Regulation on European Crowdfunding Service Providers (ECSP)⁷ is still in early stages and will likely examine institutional-level findings from research in this domain before deciding on final policy implementation. Our results suggest that policy-making processes should differentiate between the mechanisms related to diverse crowdfunding forms to incorporate specific amendments that can aid the ecosystem around sustainability-oriented ventures and create standards around the communication of long-term campaign results (e.g., impact reporting).

Finally, this review is not without limitations. First, while we used two popular and established databases (i.e., Web of Science and EBSCO) for the identification of the peer-reviewed papers in this study, our findings are contingent on the results of these two databases. However, this approach increases the replicability of our findings; in addition, the *Litmaps* algorithmic search did not reveal additional or previously unidentified studies that match our inclusion criteria. Yet our approach neglects unpublished works, such as papers uploaded to the Social Science Research Network (SSRN), conference papers, or dissertations,

which could limit the scope of our findings, although we consider this potential effect to be limited. Including research that has not undergone journal peer-review would pose the risk of reporting unsubstantiated findings.

Second, we focused on studies written in English, and published non-English works were not included. Although this approach is commonly accepted, the different views and findings reported in other languages than English were not considered and might cause a language bias (Morrison et al., 2012). For instance, research deriving from Spanish- or French-speaking countries may be underrepresented to the degree that researchers potentially rely on smaller outlets in their local language. However, we believe that the threat of a language bias is relatively small here because (crowdfunding) researchers seek to present their findings in influential, internationally established and ranked journals, which are in English.

Third, a potential limitation of this review lies in the geographic focus of most current crowdfunding research on Western Europe and the U.S. (i.e., on so-called WEIRD subjects: Western, Educated, Industrial, Rich, and Democratic), whereas much of the world population lives outside of this region (see also Henrich et al., 2010) and the context of emerging countries is likely to impact relevant mechanisms in the crowdfunding process for sustainability-oriented ventures. While part of this issue stems from local bans and legal voids as has been the case in China, our article clearly demonstrates that considerable bias remains toward Western data and literature in the scientific community.

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CRediT authorship contribution statement

Jeannette Mai Dinh: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing – original draft, Writing – review & editing, Software. **Andrew Jay Isaak:** Methodology, Project administration, Supervision, Validation, Writing – review & editing, Writing – original draft. **Marius Claus Wehner:** Funding acquisition, Project administration, Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jclepro.2024.141579>.

Appendix

⁶ <https://www.sec.gov/spotlight/jobs-act>, accessed: Oct. 13, 2023.

⁷ https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/financial-markets/crowdfunding_en, accessed: Oct. 13, 2023.

Table 1
Articles included in the literature review.

	Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo-graphy
1	Behl et al. (2023)	Operations Research and Management Science	Empirical-quantitative	Survey	Donation-based	The role of social relatedness linked to intrinsic motivation for repeated funding	Social relatedness influences a backer's intrinsic motivation, leading to repeated funding behavior; Gamification moderates this relationship	Self-determination theory	India
2	Corsini and Frey (2023)	Information Management	Empirical-quantitative	Survey	Reward-based	The success factors of environmentally sustainable product campaigns considering customer needs, technology and target market	Crowdfunding not ideal for new customer needs or technologies; Financing sustainable niche market products more successful than financing mass market products	Product search matrix	U.S.
3	Gama et al. (2023)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Deployment of signals by microfinance institutions (MFIs) and refugee entrepreneurs on crowdfunding platforms	Campaigns affiliated with a MFI signaling lower default rates, high profitability, an entrepreneurial support orientation, transnational operations and digital focus achieve better crowdfunding outcomes	Signaling theory	U.S.
4	Hornuf and Siemroth (2023)	Economics	Empirical-quantitative	Experiment	Return-oriented lending-based	Crowdfunding backers' behavior in response to newsletter framing	Ecological framing increases newsletter clicks; Older investors respond more to a return framing than younger investors, while men respond less than women	N/A	Germany
5	Leone, Pietronudo, Gabteni, and Carli (2023)	Ethics, Corporate Social Responsibility, Management	Empirical-qualitative	Case studies (multiple)	Reward-based	The potential of reward-based crowdfunding to design and orchestrate a circular business model	Crowdfunding shapes circular business models in informational mechanisms, collaborative innovation networks, and marketing aspects	Circular business model	U.S.
6	Liang et al. (2023)	Information Management	Empirical-quantitative	Survey	Reward-based	The effects of perceived sustainability orientation on backers' value-co-creation behavior	Perceived sustainability orientation impacts value-co-creation behavior via perceived affective reaction, self-effectiveness; It further impacts participation behavior through perceived risk	Theory of planned behavior, agency theory, rational choice theory, affective events theory, perceived self-effectiveness, risk perception theory	China
7	Mendoza, Oller, Rezola, and Suarez (2023)	Entrepreneurship and Small Business Management	Empirical-quantitative	Survey	Equity-based	The impact of sustainability on the success probability of investment campaigns	Sustainability-related factors do not increase the chances of crowdfunding success	N/A	U.S.
8	Pan and Dong (2023)	Sector Studies	Empirical-quantitative	Secondary data analysis	Donation-based	External and internal quality signals related to donation-based crowdfunding success	While internal signals (updates and predefined duration) positively influence crowdfunding success, the role of external signals (platform and award) is less certain	Signaling theory	China
9	Sabzehzar, Burtch, Yili and Raghu (2023)	Information Management	Empirical-quantitative	Secondary data analysis, natural experiment	Prosocial lending-based	The influence of religious differences on prosocial crowdfunding	Religion distance has a significant negative effect on funding activity; The backers' offline social context moderates this relationship, while online context amplifies it	Conflict theory, groupthink theory	U.S.
10	Vasquez-Ordenez; Lassala, Ulrich, and Ribeiro-Navarrete (2023)	Ethics, Corporate Social	Mixed	Fuzzy set qualitative	Return-oriented lending-based	Variables that influence the performance of crowdlending	Platform communication, firms' sustainability orientation, loan characteristics and social	N/A	Spain

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo- graphy	
	Responsibility, Management		comparative analysis		campaigns for renewable energy projects	networking represent influencing variables; Effective communication between participants is crucial			
11	Yoo et al. (2023)	Information Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Conceptual framework to delineates the relationship between backers' three utilities and informational cues	Funding success increases when borrowers smile or when the target amount is smaller; Relationship between funding success and target amount is moderated by smiling when social-tie words are used	Three-component utility model	U.S.
12	Allison et al. (2022)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Donation-based	Language-based cues of personality traits embedded in charitable appeal of crowdfunding campaigns	Donation effects increase for appeals highlighting the pandemic's impact on the business; Language-based cues of personality traits are related to public support when embedded in charitable appeal	Identifiable victim effect	U.S.
13	Anglin et al. (2022)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Reward-based	Funding differences between social and commercial ventures related to the influence of entrepreneur gender and race for social versus commercial ventures	Women experience better funding performance when funding a social venture, the effect is larger for women of color; Men of color experience worse performance when funding a social venture	Role congruity theory	U.S.
14	Anglin et al. (2022)	Ethics, Corporate Social Responsibility, Management	Empirical-quantitative	Secondary data analysis, experiment	Prosocial lending-based	The tension regarding the effects of religious expression on crowdfunded microfinance funding outcomes	Religious expression has a negative impact on funding, especially for women; The negative influence of religious expression is attenuated when individual lenders exhibit higher levels of religiosity	Role congruity theory	U.S.
15	Banerjee (2022)	International Business, Area	Empirical-qualitative	Interviews	Donation-based	The training of local NGO staff to market their projects in digitally affective ways on social media	Modern technological tools influence the creation of affective social bonds and social capital to mobilize donors	Social capital theory	India
16	Butticè and Useche (2022)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Reward-based	The role of internal social capital on the composition of backers attracted by US-born versus immigrant entrepreneurs	Immigrant entrepreneurs attract fewer backers located in the host country but receive more funding from backers located in their home country; Entrepreneurs' social capital positively moderates these relationships	Social capital theory	U.S.
17	Caputo, Schiocchet, and Troise (2022)	Social Sciences	Mixed	Fuzzy set qualitative comparative analysis	Equity-based	The role of the elements of sustainable business models as success discriminants of equity crowdfunding campaigns	Elements of sustainable business models positively influence campaign outcomes; Negative outcomes can be associated with campaign-related features	Collective action theory	Italy
18	Cox et al. (2022)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Reward-based, donation-based, equity-based	Completion contributions in relation to the funding deadline proximity	Completion contributions vary positively with proximity to funding deadlines; Relationship is more pronounced for all-or-nothing than for keep-it-all and for donation-based platforms compared to equity-based platforms	Theory of impact philanthropy, goal gradient theory	U.S., U.K.

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo- graphy
19	Davies and Giovannetti (2022)	Innovation	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Novel construct for social capital, latent network capital, to examine gender gap in crowdfunding	The latent network capital elasticity of the amount of funds is lower for women-led than for male-led projects	U.S.
20	De Crescenzo Monfort, Augusto Felicio, and Ribeiro-Navarrete (2022)	Sector Studies	Mixed	Fuzzy set qualitative comparative analysis	Donation-based	Content communication and endorsement from third-party to reduce information asymmetry	The relevance of content communication appears to vary depending on the presence of a third-party investor	Italy
21	Dinh and Wehner (2022)	Sector Studies	Empirical-quantitative	Experiment	Return-oriented lending-based	The role of human values to explain differences of crowd investors	The majority of backers base their funding decisions on financial return rates; Backers with high self-transcendence values focus on ecological impact goals, while backers with high self-enhancement values prefer social goals	Germany
22	Emanuel-Correia, Duarte, Gama, and Augusto (2022)	Finance	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Loan access for refugee entrepreneurs and the effect discrimination in this setting	While the perceptions of campaigns involving refugee entrepreneurs is positive; Female refugee entrepreneurs experience discrimination	U.S.
23	Figueroa-Armijos and Berns (2022)	Ethics, Corporate Social Responsibility, Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The role of vulnerability in successfully raising funds in a prosocial crowdfunding context	Being associated with vulnerable populations is negatively related to successful funding; Female or rural key framing of vulnerability increases the likelihood of funding	U.S.
24	Gao, Guo, and Tang (2022)	Information Management	Empirical-quantitative	Secondary data analysis, quasi-experiment	Prosocial lending-based	The effectiveness of matching subsidies in influencing funding outcomes and backer behavior	Contributions to matched and unmatched loans increase compared to their prematching counterparts, indicating a positive spillover effect on unmatched loans	U.S.
25	Ge, Zhang, and Zhao (2022)	Information Management	Empirical-quantitative	Secondary data analysis	Donation-based	The impact of expressions of sadness, anxiety and fear across different categories (medical assistance, education assistance, disaster assistance and poverty assistance)	The expression of sadness, anxiety and fear shows different effects across the categories; No effects were found for the poverty assistance category	China
26	Guillochon (2022)	Economics	Empirical-quantitative	Secondary data analysis	Return-oriented lending-based, equity-based	The factors influencing the number of investors and the duration of successful renewable energy campaigns	Media coverage increases the number of investors participating in campaigns and shortens the campaign duration	France
27	Hoos (2022)	Accounting	Mixed	Experiment	Donation-based	The influence of signaling a social entrepreneur's reputation and accountability on backers' decisions	Signaling accountability based on a social impact measurement system is a better strategy than reputation building or sending both signals simultaneously	France
28	Hornuf and Siemroth (2023)	Innovation	Empirical-quantitative	Secondary data analysis	Equity-based	The effect of investor motives linked to a default shock in equity crowdfunding	A default shock occurs immediately after the event or if investors experience more than two insolvencies; Sustainability-oriented backers pledge larger amounts of money and invest in	Austria, Germany

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo- graphy	
29	Jang and Chu (2022)	Marketing	Empirical-quantitative	Secondary data analysis	Donation-based	The effectiveness of a negatively framed messages on campaign success	more campaigns, reacting more sensitively after experiencing a default Negatively framed messages resulted in a greater number of backers and sharing of the message via social media, but smaller individual donation amounts	Fairness equilibrium theory, mood management theory, signaling theory, self-determination theory	International
30	Kollenda (2022)	Finance	Empirical-quantitative	Secondary data analysis	Return-oriented lending-based	Conflicting objectives between generating financial returns and generating social impact	Backers' decisions are influenced by financial returns; A variation in financial returns can crowd out dimensions of social impact	Theory of crowding out	Netherlands
31	Kuo et al. (2022)	Marketing	Empirical-quantitative	Experiment	Reward-based	The impact of message framing and cause-related marketing on the intentions of backers	Negative message framing results in higher funding intentions; Narratives with cause-related marketing show a significant effect on increasing funding intentions	Framing theory, regulatory focus theory	Taiwan
32	Li et al. (2022)	Information Management	Empirical-quantitative	Survey	Donation-based	The roles of social experience, empathy and personal impulsiveness on donation intention	Empathy mediates the relationship between campaigns and donors; Social influence positively influences empathy and donation intention; Personal impulsiveness moderates the relationship	Cognitive evaluation theory	China
33	Logue and Grimes (2022)	Strategy	Empirical-qualitative	Case study (single), secondary data analysis	Donation-based	The generation of an institutional infrastructure through civic crowdfunding platforms to grow and to pursue a social mission	The development of an institutional infrastructure involving boundaries, bridges, and blueprints is important to overcome these dilemmas when social mission platforms attempt to navigate user growth	Institutional infrastructure	U.K.
34	Luo et al. (2022)	Information Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The effects of prosocial crowdfunding on the sustainability and interest rates of traditional MFIs	After joining the prosocial platform Kiva, MFIs' sustainability improves and the interest rates decrease	N/A	U.S.
35	Manning et al. (2022)	Strategy	Empirical-qualitative	Case studies (multiple)	Reward-based	The mobilization of critical resources from local ecosystems	The circular strategy of resource mobilization is mainly applied by social ventures, while the cumulative strategy is mainly applied by commercial high-tech ventures	Institutional ties	U.S.
36	Mansouri and Momtaz (2022)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis, natural experiment	N/A (Equity-based)	The effect of sustainability orientation on the short- and long-term performance of blockchain-based crowdfunding campaigns	Sustainability orientation has a positive influence on the ventures' short-term valuation and a negative influence on their post-funding performance	Financial equilibrium theory, sustainability-related equilibrium theory	N/A
37	Mitra et al. (2022)	Entrepreneurship and Small Business Management	Empirical-quantitative	Survey	Reward-based	The influence of natural and material rewards and of prosocial motivation on the backers' willingness to fund a social crowdfunding campaign	Natural rewards positively influence the crowds' willingness to fund the social campaign; Prosocial motivation mediates this relationship	Self-leadership theory	France

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo- graphy	
38	Naimi et al. (2023)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The impact of cognitive and emotional appeals to attract funding	Cognitive appeals can attract more funding than emotional appeals; (Negative) affective language may be negatively related to funding	Elaboration likelihood model of persuasion, theory of emotions as social information	U.S.
39	Nakagawa and Kosaka (2022)	Innovation	Mixed	Latent dirichlet allocation topic modeling; Survey	Reward-based	Social issues that campaigns address and related emphatic feelings	Cognitive empathy is positively related to issues in which people are willing to invest; Empathy affects the success of fundraising in combination with the profitability of the issue	Theory of empathy, empathy–altruism hypothesis	Japan
40	Parhankangas and Colbourne (2022)	Entrepreneurship and Small Business Management	Empirical-qualitative	Netnography	Reward-based, donation-based	The emancipatory potential of Indigenous crowdfunding campaigns	Typology of indigenous emancipatory crowdfunding across commercial, cultural, community, and activist campaigns	N/A	U.S., Australia
41	Penz et al. (2022)	Innovation	Empirical-quantitative	Experiment	Return-oriented lending-based	The influence of different framing and benefits on the decisions of backers	While altruistic cues are more effective than egoistic cues, egoistic benefits (i.e., interest payments) are more important than altruistic benefits (i.e., environmental impact)	Warm-glow theory, framing theory	Germany
42	Otte and Maehle (2022)	Sector Studies	Mixed	Fuzzy set qualitative comparative analysis	Reward-based	The combinational impact of emotions, updates, duration, amount, gender, location	Crowdfunding success of cleantech projects is highly contextual and a complex combination of success factors	N/A	U.S.
43	Quigley and Patel (2022)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The interaction between the backers' gender and gender egalitarianism practices of the backer's home culture in terms of funding amount	Female backers raise less funding than male backers; This effect is moderated by gender egalitarianism practices	Gender role theory, cultural theory	U.S.
44	Rama et al. (2022)	Finance	Empirical-quantitative	Secondary data analysis	Donation-based	The effect of religiosity and social orientation on crowdfunding	Narratives of religious identity and social orientation have a positive effect on crowdfunding success	Moral foundation theory, cultural theory	U.S., U.K., Malaysia
45	Sherman and Axelrad (2022)	Entrepreneurship and Small Business Management	Empirical-quantitative	Survey	Reward-based, donation-based	The influence of funding experience in reward and donation-based crowdfunding on well-being	Intrinsic funding motivation is associated with the sense of meaning in life	Theory of well-being	Israel
46	Siebeneicher and Bock (2022)	Innovation	Empirical-quantitative	Secondary data analysis	Reward-based	The effect of the relationship between sustainable values and personal value on crowdfunding success	Sustainable and personal values positively affect crowdfunding success; The marginal relation increases for teasers but decreases for descriptions	Signaling theory	U.S.
47	Song et al. (2022)	Operations Research and Management Science	Empirical-quantitative	Secondary data analysis	Donation-based	Matching of returning donors to campaigns in donation-based crowdfunding	Primarily egoistic factors motivate donations; Over the course of a campaign, egoistic and altruistic motivations play a symbiotic role	Theory of altruistic utility (altruism)	U.S.
48	Yacoub et al. (2022)	Entrepreneurship and Small Business Management	Empirical-qualitative	Case studies (multiple)	Reward-based, Donation-based, Equity-based	The relation between entrepreneurs' motivation and different crowdfunding types	Sustainable entrepreneurs choose among different crowdfunding types based on six drivers: create the craze, springboard for another project, sales argument,	N/A	France

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo- graphy	
49	Zhang et al. (2022)	Information Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The influence of backers' experience and social connection on retention	production funding and test the market Profit language and the failure of past participation are negatively related to retention; Friends or lending teams are positively related to retention	Self-determination theory	U.S.
50	Bergmann et al. (2021)	Economics	Empirical-quantitative		Reward-based, donation-based, return-oriented lending-based, equity-based	Public opinions about the role of crowdfunding investment for the renewables sector	Prior experience with crowdfunding, and previous investments in renewables key influencing factors; Crowdfunding considered a viable alternative to traditional investments	N/A	Europe
51	Cason et al. (2021)	Economics	Empirical-quantitative	Experiment	Donation-based	The assurance contract mechanism in the context of crowdfunding for public goods	Refund bonuses can increase the success rate by 50%; Taking into account campaign failures, refund bonuses can be financially self-sustainable	Theory of strategic complements, theory of conditional cooperation	U.S.
52	Chan et al. (2021)	Ethics, Corporate Social Responsibility, Management	Empirical-quantitative	Secondary data analysis	Reward-based	The influence of verbal cues of money saliency and sustainability intention on funding outcomes	Money cues have a negative impact on funding behavior; This effect is mitigated for sustainability-oriented projects	N/A	U.S.
53	Chen et al. (2021)	Information Management	Empirical-quantitative	Survey	Donation-based	Extrinsic and intrinsic motivations in donation-based crowdfunding	Perceived ease of use, self-efficacy and social connection positively impact backers' donation intentions through a combined extrinsic and intrinsic motivations	Self-determination theory	China
54	Chung et al. (2021)	Marketing	Empirical-quantitative	Secondary data analysis	Reward-based	The impact of backers' social networks on their funding behavior	Node-level factors (e.g., centrality) have a greater impact on technology-oriented campaigns, while tie-level factors (e.g., embeddedness) have a stronger effect on social-oriented campaigns	Social network theories, cognitive balance theory	China
55	Corsini and Frey (2021)	Information Management	Empirical-quantitative	Secondary data analysis	Reward-based	The success determinants of projects developing sustainable products	The impact of crowdfunding on the development and commercialization of sustainable products is marginal; Using generic sustainability keywords in campaigns may weaken the success	Diagnostic theory	U.S.
56	Defazio et al. (2021)	Ethics, Corporate Social Responsibility, Management	Empirical-quantitative	Secondary data analysis	Reward-based	The crowdfunding conditions that impact contributions to projects expressing a prosocial orientation	Prosocial framing is positively related with crowdfunding success when being moderately emphasized; Crowdedness on the platform increases the positive effect of prosocial orientation	Framing theory	U.S.
57	Dorfleitner et al. (2021)	Ethics, Corporate Social Responsibility, Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The antecedents of funding success in prosocial lending-based crowdfunding	Social underwriting by a third party and the description texts signaling trust are the main antecedents of funding success; Backers prefer to fund women and groups as well as, for non-	Signaling theory, information asymmetry	U.S.

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo- graphy
58 Feola et al. (2021)	Entrepreneurship and Small Business Management	Empirical-quantitative	Survey	Equity-based	Segmentation of backers according to confidence in team and venture, financial pledge and project attractiveness, platform characteristics, community driver, and societal driver	endorsed loans, individuals with an immigration background Four clusters: (1) venture trustful; (2) crowdfunding technicians; (3) financial investors, talent scouts; (4) social dreamers	Theory of work motivation	Italy
59 Gafni et al. (2021)	Ethics, Corporate Social Responsibility, Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Influence of the loan purpose—business investment versus basic necessities—on the campaign success in crowdfunding	Basic need loans are funded more rapidly than business loans; Females are funded more rapidly than men for basic need loans	Self-determination theory	U.S.
60 Gama et al. (2021)	Economics	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The effect of a traditional versus modern loan purpose on crowdfunding success	Campaigns promoting modern-sector business loans lead to faster funding; In this context, large loans are more appealing to lenders; Female entrepreneurs have an advantage over men	Economic development theory	U.S.
61 Kim and Hall (2021a)	Social Sciences	Empirical-quantitative	Survey	Reward-based, donation-based, return-oriented lending-based, equity-based	The influence of values and attitudes on crowdfunding behavior for campaigns in relation to the sustainable development goals	Value impacts attitude, personal norm, and social norm, which positively influence participation; Conscientiousness, extraversion, agreeableness, and neuroticism have a moderating influence	Value-attitude-behavior model, personality theory	Korea
62 Kim and Hall (2021a)	Sector Studies	Empirical-quantitative	Survey	N/A	The behavior of backers in terms of goal direction, risk, and intervention as influencing factor	Perceived risk and intervention play relevant roles within the extended model of goal-directed behavior in sustainability-oriented crowdfunding	Theory of planned behavior, extended model of goal-directed behavior, risk theory, intervention theory	Korea
63 Kragt et al. (2021)	Sector Studies	Empirical-quantitative	Survey, experiment	Reward-based, donation-based, return-oriented lending-based	The agricultural entrepreneurs' interest in and preferences for setting up crowdfunding campaigns	Farmers are hesitant to publicly participate in crowdfunding; Well-designed campaigns can provide an effective instrument to engage particular groups of farmer	N/A	Norway
64 Maehle et al. (2021)	Sector Studies	Mixed	Secondary data analysis	Reward-based, donation-based, return-oriented lending-based, equity-based	The climate change frames of environmental entrepreneurs' crowdfunding project descriptions	Promotion goal frame, humans-related impact frame, positive valence frame, and near future and now time frame prevail	Framing theory, regulatory focus theory	Netherlands, Norway, U.S., U.K.
65 Saluzzo and Alegre (2021)	Innovation	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The role of third-party endorsements on crowdfunding success in the prosocial context	A pro bono endorsement provides the best equilibrium between the number of backers and the individual investment amount	Signaling theory	U.S.
66 Nguyen, L. T. Q.; Hoang; Do; Ngo; Nguyen, P. H. T.; Nguyen, G. D. L.; and Nguyen, G. N. T. (2021)	Innovation	Empirical-qualitative	Case studies (multiple)	Return-oriented lending-based	The application of blockchain technology on crowdfunding platforms	There are facilitators of the social value creation through blockchain technology and barriers of application; Four themes emerge: reliability, transparency, trustworthiness, and social value	N/A	N/A

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo-graphy	
67	Nielsen and Binder (2021)	Entrepreneurship and Small Business Management	Empirical-quantitative	Experiment	Reward-based	The role of value framing for a successful campaign outcome	Projects with altruistic framing are more likely to be funded than projects with egoistic or environmental framing; Framing should be in line with the personal values of backers	Framing theory, theory of human values	N/A
68	O'Reilly et al. (2021)	Operations and Technology Management	Empirical-quantitative	Secondary data analysis	Equity-based	The successful funding of ventures in the Cleantech sector across 16 European countries	Lower total assets and higher cash balances are related to greater funding amounts; Pre-funding, illiquid ventures raise less and firms with greater assets raise more funding; Post-funding ventures raise greater amounts of external equity	Signaling theory	Europe
69	Pabst et al. (2021)	Sector Studies	Empirical-quantitative	Experiment	Reward-based	The impact of different types of third-party seals (i.e., issued by a governmental entity or not) influence crowdfunding success	The third-party seal for a sustainability project must match the project's attributes, otherwise backers refrain from funding	Signaling theory	Germany
70	Ravishankar (2021)	Information Management	Empirical-quantitative	Case study	Prosocial lending-based	The hybrid orientation (i.e. online, offline) of prosocial lending-based crowdfunding platforms	Five clusters of digital actions: (1) attention-building, (2) credibility-building, (3) empathy-building, (4) intermediary relationship-building, (5) borrower relationship-building	N/A	India
71	Robiady et al. (2021)	Marketing	Empirical-quantitative	Secondary data analysis	Donation-based	The impact of direct versus indirect storytelling on social crowdfunding campaigns	Storytelling techniques positively influence customer engagement and funding, especially the direct storytelling technique	Commitment trust theory	Indonesia
72	Roma et al. (2021)	Operations and Technology Management	Empirical-quantitative	Secondary data analysis	Reward-based	The impact of the ventures' environmental sustainability orientation on the funding performance and ability to secure venture capital	Environmental sustainability orientation positively impacts the likelihood of receiving subsequent venture capital; The negative impact on funding performance has an indirect negative influence	Economic theory, rational choice theory	U.S.
73	San Martı́nez-Clement et al. (2020)	Sector Studies	Empirical-quantitative	Survey	Reward-based	Attitude toward crowdfunding in tourism as a socially responsible investment	Intentions to fund are affected by the individuals' attitude concerning the project as well as their general attitude concerning crowdfunding	Theory of reasoned action, theory of planned behavior, attitude formation theory	Spain
74	Simpson et al. (2020)	Marketing	Empirical-quantitative	Experiment	Reward-based	Differences in decision making in crowdfunding versus purchasing a product	Compared to traditional purchase behavior, crowdfunding more strongly activates an interdependent mindset, increasing consumer demand for positive social and/or environmental impact	Collective efficacy, interdependent self-construal	International
75	Taylor-Gooby et al. (2021)	Social Sciences	Empirical-quantitative	Secondary data analysis, natural experiment	Donation-based	Backer behavior in donation-based crowdfunding during the Covid19 crisis	Policy discourse emphasizing common humanity in the face of a collective challenge, rather than social divisions, can help build social cohesion	N/A	U.K.

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo- graphy
76 Tenner and Hörisch (2021)	Sector Studies	Empirical-quantitative	Survey	Reward-based, Return-oriented lending	Characteristics of backers in sustainability-oriented crowdfunding	Typical backer of sustainability-oriented crowdfunding projects is young, well-educated, familiar with crowdfunding and holds low levels of self-enhancement and conservative values	Theory of human values	Germany
77 Troise et al. (2021)	Innovation	Empirical-quantitative	Survey	Equity-based	The exploitation of knowledge-based crowd inputs by agri-food businesses	Agri-food businesses use knowledge-based inputs for organizational innovation to foster social sustainability and for product innovations to enhance economic and environmental sustainability	N/A	Italy
78 Anglin et al. (2020)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Entrepreneurs' MFI affiliation, in particular the financial and social performance, as third-party signal	MFI affiliation represents a key signal for entrepreneurs; MFI's financial and social performance have an effect on the likelihood of funding	Signaling theory	U.S.
79 Ba et al. (2020)	Information Management	Empirical-quantitative	Secondary data analysis	Donation-based	Differences between four project categories based on project descriptions; Spatial patterns in the flow of cross-regional donations	Type of project executors is related to success; Flow of donations tends to be focused on a few developed regions	Local bias	China
80 Behl and Dutta (2020)	Information Management	Empirical-quantitative	Survey	Donation-based	Impact of gamification on the behavior of donors on platforms related to disaster relief operations	Gamification has a positive effect on the behavior of donors; This effect is moderated by information quality and voluntariness	Self-determination theory	International
81 Berns, Figueroa-Armijos, da Motta Veiga, and Dunne (2020)	Ethics, Corporate Social Responsibility, Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Strategic or altruistic motives of lenders in prosocial lending-based crowdfunding platforms	Signals of quality and low risk have a positive influence on funding success; Especially, the combination of high financial and high social appeal	Social responsibility, altruism versus self-interest	U.S.
82 Bourcet and Bovari (2020)	Economics	Empirical-quantitative	Survey	Return-oriented lending-based, equity-based	Motivations of citizens to crowdfund renewable energy projects	General opinion about the renewable energy sector, its durability and the transparency of investment opportunities have a positive influence	N/A	France
83 De Crescenzo, Baratta, and Simeoni (2020)	Sector Studies	Mixed	Fuzzy set qualitative comparative analysis (secondary data)	Reward-based, donation-based, return-oriented lending-based, equity-based	The factors influencing the financial involvement of citizens in projects related to renewable energy and energy efficiency with regard to cooperative and crowdfunding models	Social network links and project descriptions in English have a positive effect on citizen engagement; cooperative and crowdfunding models can be combined	Innovation helix framework theory	E.U.
84 Dorfleitner et al. (2020)	Economics	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Characteristics of MFIs in crowdfunding based on the prosocial lending-based platform Kiva	MFIs' social performance related to loans to women and the interest rate are main antecedents of refinancing on Kiva	Warm-glow theory, life-cycle theory	U.S.
85 Gooch, Kelly, Stiver, van der Linden, Petre, Richards, Klis-Davies, MacKinnon, Macpherson, and Walton (2020)	Information Management	Mixed	Secondary data analysis, interviews	Donation-based	Feasibility of crowdfunding to finance projects that are led by communities	Crowdfunding is suitable for funding projects led by communities, creating a sense of empowerment and ownership for project initiators and increases community awareness of a project	N/A	U.K.

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	Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo-graphy
86	Herzenstein, Dholakia, and Sonenshein (2020)	Marketing	Empirical-quantitative	Secondary data analysis, field experiment, laboratory experiment	Reward-based	The effect of the number of options on the contribution likelihood in prosocial projects	When offering more options, the contribution likelihood primarily decreases and then increases resulting in a U-shaped relationship for prosocial projects	Cognitive processing, choice overload effect, self- versus other-focused decisions	U.S.
87	Hörisch and Tenner (2020)	Innovation	Empirical-quantitative	Secondary data analysis	Return-oriented lending-based, equity-based	Influence of the ventures' environmental and social orientation on crowdfunding success	Positive relationship between environmental orientation and crowdfunding success, while no significant relationship is found for social orientation	Warm-glow theory	U.S., Germany
88	Langley et al. (2020)	Social Sciences	Empirical-qualitative	Case studies (multiple)	Reward-based, donation-based, return-oriented lending-based, equity-based	The relationship between crowdfunding and cities	Crowdfunding facilitates social entrepreneurship, supports real-estate speculation and enables solidarity economies	Urban governance, complex adaptive systems	Germany
89	Li et al. (2020)	Information Management	Empirical-quantitative	Experiment	Donation-based	Identification of appropriate donors to increase engagement in crowdfunding	Relationships between donors and project initiators, information on user preferences, and funding dynamics lead to a match of donors and project initiators	Social networks	U.S., International
90	Martínez-Climent et al. (2020)	Entrepreneurship and Small Business Management	Empirical-qualitative	Fuzzy set qualitative comparative analysis (survey)	Return-oriented lending-based	The role of intrinsic and extrinsic investor motivation in lending-based crowdfunding	Investors attaching high relevance to economic returns and/or low relevance to corporate social responsibility, invest a low percentage of their wealth	Stakeholder theory, risk theory, cognitive evaluation theory, life-cycle theory	Spain
91	Predkiewicz and Kalinowska-Beszczynska (2020)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Reward-based	Factors that influence the success of ecologically oriented projects	Updates, comments, and targeted amount have impact on crowdfunding success; Higher success probability of water saving projects	Information asymmetry, altruism	U.S., U.K., E.U.
92	Shevchenko et al. (2020)	Social Sciences	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Effect of an environmental orientation on the financial decisions of project initiators related to microfinance	An environmental orientation results in higher funding requests and longer payback periods; Nonetheless, it increases the likelihood of payback	Paradox theory	U.S.
93	Slimane and Rousseau (2020)	Sector Studies	Empirical-quantitative	Secondary data analysis	Return-oriented lending-based	Factors influencing the crowdfunding success of projects within the renewable energy sector	Economic factors of the project (e. g., interest rate, targeted amount, firm size, financial performance) have a large influence on campaign success	Information asymmetry, social capital theory	France
94	Testa et al. (2020)	Social Sciences	Empirical-qualitative	Secondary data analysis	Reward-based	Characteristics of sustainability-oriented products/services influencing the likelihood of success in crowdfunding	Emphasizing egoistic product characteristics more important than emphasizing altruistic characteristics	Theory of purchasing behaviors, altruism versus self-interest	U.S.
95	Bagheri et al. (2019)	Innovation	Empirical-qualitative	Interviews	Donation-based	Motivations (intrinsic and extrinsic) of donors to engage in crowdfunding	Donors are driven by intrinsic and extrinsic motivations in combination	Self-determination theory	Iran
96	Bento et al. (2019)	Innovation	Empirical-quantitative	Secondary data analysis	Return-oriented lending-based	The extent to which risk is considered in the expected return of renewable energy crowdfunding projects	Project returns are not consistent with the technology-related risks after country risk has been accounted for	Bounded rationality, cognitive bias, cultural theory	Europe
97	Bento et al. (2019)	Sector Studies	Empirical-quantitative	Secondary data analysis	Reward-based	The extent to which project attributes influence	Sustainable mission has a positive impact on crowdfunding outcomes; The average survival	Self-determination theory	U.S.

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geography	
98	Brent and Lorah (2019)	Regional Studies, Planning and Environment	Empirical-quantitative	Secondary data analysis	Donation-based	crowdfunding success and venture survival The distributional influence of donation-based crowdfunding and interpretations for policymakers	rate after one year amounts to over 70% Local donations are as relevant as donations from outside their community; neighborhood income has no influence	N/A	U.S.
99	Butticè et al. (2019)	Innovation	Empirical-quantitative	Secondary data analysis	Reward-based	The impact of institutional settings in different countries on the diffusion of green crowdfunding projects	Green crowdfunding projects are more diffused in countries with a limited environmental sustainability orientation	Institutional theory	U.S.
100	Cheng et al. (2019)	Finance	Empirical-quantitative	Experiment	Donation-based	The behavior of donors in a public goods game with regard to social capital	Social capital can foster collaboration to attract more donations	Social capital theory, game theory	China
101	Dai and Zhang (2019)	Marketing	Empirical-quantitative	Secondary data analysis, survey	Reward-based	The prosocial motivation of crowdfunding backers	Projects raise funds more quickly just before they reach their funding goal; this effect is amplified when nature of the project evokes prosocial motivation and the project initiator is an individual	Goal gradient theory	U.S.
102	Hoerisch (2019)	Sector Studies	Empirical-quantitative	Secondary data analysis	Return-oriented lending-based	The implementation of measures and disclosure of ecological benefits after successful crowdfunding	The project measures are generally implemented; Yet few projects provide information on the created ecological benefits	Information asymmetry, agency theory	Germany
103	Hong and Ryu (2019)	Information Management	Empirical-quantitative	Secondary data analysis	Reward-based	The effect of government involvement in crowdfunding with respect to public goods projects	Crowdfunding projects with government involvement are more successful than comparable projects without government involvement	Information asymmetry, moral hazard	Korea
104	Hsieh, Hsieh, and Vu (2019)	Finance	Empirical-quantitative	Secondary data analysis	Reward-based	The extent to which projects related to social movements are more successful than general projects	Projects related to social movements have greater funding success than other projects; the impact of such projects is more prominent during times of social movements	Capacity theory	Taiwan
105	Jancenelle et al. (2019)	International Business, Area	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The extent to which on funding speed is influenced by the backers' cultural alignment with their own country	Cultural alignment is negatively related to funding speed suggesting that backers prefer a cultural misalignment	Institutional theory, cultural entrepreneurship tension	USA
106	Laurell, Sandstrom, and Suseno (2019)	Innovation	Empirical-qualitative	Secondary data analysis	N/A	The extent to which sustainability is integrated within the public discourse on crowdfunding in social media	The relation between crowdfunding and sustainability in social media is limited; Mainly professional actors deal with both topics	N/A	N/A
107	Lee et al. (2019)	Information Management	Empirical-quantitative	Secondary data analysis	Donation-based	The impact of linguistic style and message substance on funding outcomes in civic crowdfunding	Psychological language (i.e., positive affective and perceptual language) positively influences funding success; Extensive use of social language has a negative effect on funding success	Elaboration likelihood model of persuasion	U.K.
108	Li and Wang (2019)	Information Management	Empirical-quantitative	Secondary data analysis	Reward-based	Funding and sharing behavior of backers at	Goal proximity and prosocial orientation of projects (public goods) have a positive influence	Goal gradient theory	U.S.

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo- graphy
109 Mejia et al. (2019)	Operations and Technology Management	Empirical-quantitative	Experiment	Donation-based	different stages in relation to the funding threshold The influence of transparency and work-related updates on donations	on the prosocial behavior of backers Updates and certification have a positive impact on donations; Each work-related word and certification in an update increases funding	Signaling theory	U.S.
110 Moleskis, Alegre, and Angel Canela (2019)	Sector Studies	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The factors influencing funding success across entrepreneurial and humanitarian projects	Gender bias and risk signals show a stronger impact on the likelihood of funding success for entrepreneurial projects, home bias more strongly affects humanitarian projects	Signaling theory, behavioral bias	U.S.
111 Presenza et al. (2019)	Innovation	Empirical-qualitative	Case study	Donation-based	Stimulation and support of successful social innovation projects in donation-based crowdfunding	The platform acts as a hub and facilitates interactions and relationships between the different actors, creating an ecosystem for social crowdfunding	Theory of multi-sided markets	Italy
112 Sasaki (2019)	Psychology (general)	Empirical-quantitative	Secondary data analysis	Donation-based	The influence of preceding donations on the donation of a subsequent donor	As the number of recent donations increases, the likelihood that a subsequent donor will match the donation amount of previous donors increases	Theory of conformity behavior, social impact theory	Japan
113 Schwittay (2019)	International Business, Area	Empirical-qualitative	Case study	Prosocial lending-based	How prosocial lending supports humanitarians through the mediated production of affective investments	Prosocial lending engages backers through affective investments, i. e., financial, social, and emotional commitments to distant individuals	Theory of moral sentiments, humanitarian affect	U.S.
114 Tsai and Wang (2019)	International Business, Area	Mixed	Secondary data analysis, case studies (multiple)	Donation-based	The extent to which donation-based crowdfunding represents a medium for policy advocacy	Majority of projects have no policy objectives; Of those with policy objectives, nearly two-thirds have an impact on the agenda or contribute to policy change	Agenda-setting theory	China
115 Vismara (2019)	Innovation	Empirical-quantitative	Secondary data analysis	Equity-based	The attractiveness of sustainability orientation of ventures in equity-based crowdfunding	Sustainability orientation does not increase crowdfunding's chances of success; It does not attract more professional investors, but it does attract more non-professional investors	Institutional theory, cultural theory, signaling theory, identity theory	U.K.
116 Wang et al. (2019)	Information Management	Empirical-quantitative	Survey	Donation-based	The factors in relation to self-identity and social identity as mediating constructs that influence donor intentions in crowdfunding	Sense of self-worth, face concern, moral obligation, perceived donor effectiveness, social interaction, and referent network size have a positive influence on donation intentions and are mediated by self-identity and social identity	Self-determination theory, identity theory, social identity theory	China
117 Wehnert et al. (2019)	Innovation	Empirical-quantitative	Experiment	N/A	The influence of crowdfunding on consumers' product perceptions and trust in sustainability attributes	Depending on the level of product complexity, crowdfunding success represents an influential signal on the perceptions and the credibility of sustainability product attributes	Signaling theory	N/A

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo- graphy	
118	Xiang et al. (2019)	Marketing	Empirical-quantitative	Secondary data analysis	Reward-based, equity-based	The impact of the emphasis of message appeals in a crowdfunding for consumers and investors	Emphasis on information (emotion) positively impacts consumers (investors); Decision control, social orientation, and reward tangibility are conditional factors	Elaboration likelihood model of persuasion	China
119	Zhou and Ye (2019)	Sector Studies	Empirical-quantitative	Secondary data analysis	Donation-based	How demonstration of legitimacy, arguments for worthiness, and social network influence project outcomes	Organizational competence, use of concrete personal stories in the project description, low-risk solutions and mobilization of social networks are relevant for funding success	N/A	China
120	Carè et al. (2018)	Ethics, Corporate Social Responsibility, Management	Empirical-qualitative	Case studies (multiple)	Reward-based, donation-based	The implications of civic crowdfunding for civic and urban areas based on six smart cities	Civic crowdfunding can involve actors in smart city projects through aspects such as sense of civic duty, empathy, and sense of belonging to an urban area or territory	N/A	Italy
121	Chen et al. (2017)	Sector Studies	Empirical-quantitative	Secondary data analysis	Reward-based	The mechanisms that accelerate China's economic transition regarding sustainable entrepreneurship and the government's policies	Public opinion has an effect on public demand; Ecological issues increase demand for cleaner air products via sustainable crowdfunding	System dynamics theory, market theory	China, U.S.
122	Cox et al. (2018)	Information Management	Empirical-quantitative	Secondary data analysis, survey	Prosocial lending-based	The extent to which the self-presentation of lenders has an influence on crowdfunding behavior	Self-presenting lenders with publicly visible profiles make a larger number of loans than those without profiles	Self-presentation theory, altruism	U.K.
123	Hong and Ryu (2019)	Information Management	Empirical-quantitative	Secondary data analysis	Reward-based	The influence of prosocial orientation of projects, the social network structure among individuals sharing the projects, and the volume of social media activity on funding success	Twitter activity leads to an increased funding for prosocial oriented crowdfunding projects when users' networks exhibit greater embeddedness	Social network embeddedness, public goods theory	U.S.
124	Jancenelle et al. (2018)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The effectiveness of moral cues to attract backers within prosocial lending-based crowdfunding	Projects stressing universal moral foundations are funded more rapidly than projects stressing conservative moral foundations	Moral foundation theory	U.S.
125	Jancenelle et al. (2018)	International Business, Area	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Backers' reactions to economic (market orientation) and normative cues in profile narratives (positive psychological capital) in prosocial lending	Prosocial lenders seem more prone to fund projects stressing current need or concern for people than projects stressing economic success or normative expectations of positive outcomes in the future	Signaling theory	U.S.
126	Lagazio and Querci (2018)	Ethics, Corporate Social Responsibility, Management	Empirical-quantitative	Secondary data analysis	Reward-based	The multifaceted success factors of crowdfunding projects	Social-impact projects decrease the likelihood of success; Mixed, small-sized and prolonged projects with large entrepreneurial teams are more likely to be funded	Altruism, warm-glow theory, goal-setting theory, resourced-based view, information processing theory, social identity theory, social networks, information asymmetry	U.S.
127	Li, He, Song, Yang, and Zhou (2018)	Social Sciences	Empirical-quantitative	Survey	Donation-based	The impact of performance expectancy, effort	Social influence, sense of trust, effort expectancy, and	Unified theory of acceptance, theory of	China

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geography	
128	Moss et al. (2018)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	expectancy, social influence, facilitating conditions, sense of trust, and experience expectation on the donation intention The allocation of funding to ventures that communicate hybrid aims, or to those that communicate a single aim	performance expectancy significantly affect the intention of donors to contribute to donation-based crowdfunding Backers allocate funding more rapidly to ventures that communicate a single aim	reasoned action, theory of planned behavior Category membership, category spanning	U.S.
129	Ryu and Kim (2018)	Information Management	Empirical-quantitative	Survey	Reward-based	How project characteristics differ by the type of entrepreneur and which characteristics are relevant for achieving funding success	The entrepreneurs' motivations for creating the projects are linked to investor-perceived project characteristics and crowdfunding performance	Self-determination theory, self- versus other oriented behavior	South Korea
130	André et al. (2017)	Ethics, Corporate Social Responsibility, Management	Empirical-quantitative	Secondary data analysis	Reward-based (and donation-based)	The effect of reciprocal giving relationships on the success of reward-based crowdfunding projects	Crowdfunding platforms foster relationships relying on reciprocal giving, beyond the usual opposition between altruistic and selfish motivations	Theory of reciprocal giving	France
131	Chen et al. (2017)	Economics	Empirical-quantitative	Secondary data analysis, experiment	Prosocial lending-based	The effects of team competition on prosocial lending activity on the platform Kiva	Lenders who join teams invest in more loans per month than those who do not; Lenders invest in more loans when exposed to a goal-setting and coordination message	Social identity theory	U.S.
132	Cumming et al. (2017)	Economics	Empirical-quantitative	Secondary data analysis	Reward-based	The influence on country-level factors in the context of cleantech crowdfunding	Cleantech crowdfunding is more common in countries with low levels of individualism and more common when oil prices are rising	Information asymmetry, signaling theory	U.S.
133	Manning et al. (2022)	Strategy	Empirical-qualitative	Case studies (multiple)	Reward-based	How project narratives are framed and interlinked to attract crowdfunding backers	Projects narratives are linked to different styles related to the tangibility of outcomes, the complexity of technology, and the social orientation of projects	N/A	U.S.
134	Parhankangas and Renko (2017)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Reward-based	How the linguistic style of crowdfunding projects impacts the success in raising funds	Linguistic styles making the projects and their initiators more comprehensible and relatable to backers increase the success of social projects, but barely have an influence for commercial projects	Language expectancy theory	U.S.
135	Riggins and Weber (2017)	Information Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The impact of identification bias and information asymmetries on MFI funding decisions	Lenders base decisions on personal identification with borrowers; Identification biases result in inefficient investment decisions	Information asymmetry, signaling theory, identification theory, identification bias	U.S.
136	Zheng et al. (2017)	Information Management	Empirical-quantitative	Survey	Reward-based	The relationships between successful crowdfunding	Satisfaction of backers is positively related to the timely	N/A	China

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geo-graphy	
137	Calic and Mosakowski (2016)	Ethics, Corporate Social Responsibility, Management	Empirical-quantitative	Secondary data analysis	Reward-based	implementation and community benefit Whether and how a sustainability orientation influences entrepreneurs' ability to collect funding	delivery of rewards and the fulfillment of specifications A sustainability orientation has a positive influence on funding success; This relationship is partially mediated by creativity and third-party endorsements of the projects	Institutional settings, legitimacy	U.S.
138	Gleasure and Feller (2016)	Information Management	Empirical-quantitative	Secondary data analysis	Donation-based	Donation behavior in charitable crowdfunding based on the distinction between pure altruism and warm-glow motivations The institutional transformation of a climate change organization by using the more-than-real notion with regard to the Anthropocene concept	Donations to organizations are influenced by outcome-related factors; Donations to individuals are influenced by interaction-related factors The activist movement and the intersection of desire and political intervention are evident in the support that emerged with anger and disbelief	Altruism, warm-glow theory	U.S.
139	McLean (2016)	Social Sciences	Empirical-qualitative	Case study	N/A	The potential of crowdfunding focused on renewable energy projects to emerge and change energy and the financial regimes	Limited learning processes and limited support from regime actors indicate a low level of break-through potential; Platforms focused on renewable electricity with an investment-based model appear most successful	N/A	Australia
140	Vasileiadou, Huijben, and Raven (2016)	Sector Studies	Empirical-qualitative	Secondary data analysis	Donation-based, reward-based, return-oriented lending-based, equity-based	The influence of linguistic cues framing entrepreneurial narratives as an opportunity to help others or as a business opportunity	Backers funding behavior is positively associated with the opportunity to help others and less positively with the business opportunity	Multilevel perspective theory	Netherlands
141	Allison et al. (2015)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Strategic challenges faced by crowdfunding platforms through the evolution of an old sector (social group lending) to a high-technology-based stage (peer-to-peer lending)	Civic crowdfunding platforms and the participants on these platforms use rhetoric and practices that are often provocative and conflicting	Self-determination theory, cognitive evaluation theory	U.S.
142	Ashta et al. (2015)	Strategy	Empirical-qualitative	Case study	Prosocial lending-based	How testing and reimagining occurs in civic crowdfunding and reveals practical concerns	Neural affective mechanisms influence microloan success; Positive affective features of photographs promoted the success of those requests	N/A	India
143	Davies and Giovannetti (2022)	Social Sciences	Empirical-qualitative	Case studies (multiple)	Donation-based	Whether neural affective mechanisms known from charitable giving also influences microlending	In the dataset used, no positive connection between environmental orientation and	Affect theory, arousal theory	U.S., U.K., Brazil
144	Genevsky and Knutson (2015)	Psychology (general)	Empirical-quantitative	Secondary data analysis, experiment	Prosocial lending-based	How the ecological orientation of crowdfunding projects influences their		Contract failure theory, rational choice theory, public goods theory	U.S.
145	Hoerisch (2015)	Sector Studies	Empirical-quantitative	Secondary data analysis	Reward-based				

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geography
146 Jenq et al. (2015)	Economics	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	likelihood of successful funding Bias with regard to attractiveness and ethnicity in online charitable microfinance lending	crowdfunding success can be observed Lenders on a microfinance crowdfunding platform appear to prefer attractive, lighter-skinned, and less obese project initiators; Project initiators appearing needy, honest and creditworthy also collect funding faster	Attractiveness bias	U.S.
147 Moss et al. (2015)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The extent to which virtuous and entrepreneurial project narratives on prosocial lending platforms represent relevant signals and influence funding success	Autonomy, competitive aggressiveness, and risk taking are positively related to project success; Conscientiousness, courage, empathy, and warmth are negatively related to project success; Proactiveness, conscientiousness, courage, warmth, or zeal are negatively related to payback	Signaling theory	U.S.
148 Burtch et al. (2014)	Information Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	Transaction patterns between individuals considering the dual roles of geographic distance and cultural differences on lenders' decisions about which borrowers to support	Lenders prefer culturally similar and geographically proximate borrowers	Cultural theory	U.S.
149 Lehner and Harrer (2019)	Entrepreneurship and Small Business Management	Empirical-qualitative	Case studies (multiple)	Reward-based, Return-oriented lending-based, equity-based	Entrepreneurial routes by using the sociological perspectives of “Bourdieu’s four forms of capital”	Crowdfunding helps to form the actual opportunity and to disperse information; The constant exchange of ideas with the crowd, leads to norm–value pairs between the funders and the entrepreneurs	Social capital	U.S., U.K., Austria, Germany
150 Lehner and Harrer (2019)	Entrepreneurship and Small Business Management	Empirical-qualitative	Case study	N/A	The motivations of individuals considering a public–private partnership scheme to leverage the “power of the many”	Crowdfunding can result in higher legitimacy serving as a positive signal to investors; Policymakers need to provide attractive participation schemes, while protecting the interests of individuals and organizations	Legitimacy	U.K.
151 Meer (2014)	Economics	Empirical-quantitative	Secondary data analysis	Donation-based	The effects of the price of giving —the amount an individual must give for one dollar to increase to the donation activity—on donations	A higher price of giving is linked to lower chances of a project being funded; Higher competition has a negative effect on the likelihood of a project being funded	Price of giving	U.S.
152 Allison et al. (2013)	Entrepreneurship and Small Business Management	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The characteristics of entrepreneurial narratives that are related to how fast entrepreneurs collect funding	Narratives using language of blame and present concern lead to faster funding, while narratives of accomplishment, tenacity, and variety lead to slower funding	Warm-glow theory	U.S.

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Table 1 (continued)

Article	Research field	Type	Method	Crowdfunding form(s)	Main focus	Key findings	Theoretical lenses	Geography
153 Bajde (2013)	Marketing	Empirical-qualitative	Secondary data analysis	Prosocial lending-based	The ideological factors that make lending through Kiva meaningful to project initiators and backers	Kiva's ideology legitimizes "marketized philanthropic" practices by relying on alternative conceptions of poverty, social progress, and philanthropy	N/A	U.S.
154 Chemin and De Laat (2013)	Economics	Empirical-quantitative	Secondary data analysis	Return-oriented lending-based	The warm glow experienced by individual investors to increase lending	Lower interest rates apply for projects serving poverty reduction, social responsibility, or the advancement of women; The interest rates are related to the better repayment of these projects	Warm-glow theory	Denmark
155 Cryder et al. (2013)	Psychology (general)	Empirical-quantitative	Experiment	Prosocial lending-based	The influence of perceptions of personal impact related to funding goals	Prosocial lending increases when the projects are close to reaching their funding goals	Goal gradient theory	U.S.
156 Stephen and Galak (2012)	Marketing	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The relative impacts of traditional earned media and social earned media on sales as well as the ways in which earned media types influence one another	Both traditional and social earned media affect sales; Per-event sales impact of traditional earned media activity is larger than for social earned media	Paid, owned, and earned media	U.S.
157 Galak et al. (2011)	Marketing	Empirical-quantitative	Secondary data analysis	Prosocial lending-based	The characteristics of project initiators who promote lending through the platform Kiva	Lenders prefer individual borrowers over groups; They also prefer individuals who are socially close to them regarding gender, occupation, and first name initial	Identifiable victim effect, similarity effect, social distance theory	U.S.

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