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A literature review and integrated framework for the determinants of crowdfunding success

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Abstract

Crowdfunding is an innovative strategy for financing a new business venture from the general public instead of seeking funds in traditional ways, such as issuing bonds or bank lending. This study aims to identify the determinants affecting the success of a crowdfunding campaign and how different measurements for crowdfunding success, different crowdfunding models, and the selection of subdivided determinants influence the determinants' impacts on crowdfunding success. We set the disciplines in the search strategy to select studies related to crowdfunding success. Ultimately, 94 empirical papers are selected to reveal the different findings for the determinants of crowdfunding success; based on this information, we construct an integrated framework for future research. There has been much research on project- and creator-related factors; however, many of these factors have inconsistent relationships with crowdfunding success due to varying measurements of success. In particular, different measurements used within the same study for determinants or crowdfunding success may also produce inconsistent results. In addition, different crowdfunding models of a project have been found to induce additional findings. Our review of the determinants of crowdfunding success and the definitions of the determinants, as well as the proposed integrated framework, can help focus future work on relatively new or unique determinants rarely addressed in the existing literature. This work provides practical implications for both theory and practice, and directions for future research.

Keywords: Crowdfunding, Success factors, Determinants, Literature review, Integrated framework

Introduction

Crowdfunding has become a popular channel for individuals and ventures to raise money from the public on online platforms via the Internet. Compared with financing from traditional institutions, such as commercial banks, business firms, and venture capital firms, crowdfunding is a substantial financial innovation that provides more opportunities for entrepreneurial and project fundraising (especially for innovative start-ups) without standard financial intermediaries (Hervé et al. 2019; Shneor and Vik 2020; Shneor et al. 2020). Internet-enabled crowdfunding platforms play the role of a common trusted system and induce fundraisers (creators/campaigners) and funders (backers/supporters) to join forces in an alliance that facilitates the interaction between them (Shneor and Vik 2020). Following are the four main crowdfunding models of

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crowdfunding projects according to the contributions the funders realize: reward-based projects (i.e., non-monetary rewards, products, or services), equity-based projects (i.e., equity shares), loan-based projects (i.e., a particular interest rate), and donation-based projects (i.e., no monetary or material reward) (Beier and Wagner 2015; Burtch et al. 2013). Crowdfunding significantly alleviates entrepreneurs' reliance on traditional funding avenues (Mollick 2014).

The first online crowdfunding platform, ArtistShare, was launched in 2001, and users began to create crowdfunding projects in 2003. Since then, according to Massolution (2015), almost 1250 crowdfunding platforms have been launched worldwide. Kickstarter and IndieGoGo are two famous platforms launched in 2009 and 2008, respectively (Colombo et al. 2015; Joenssen et al. 2014). However, not all projects on such platforms can achieve their goals to be successfully funded, especially for Kickstarter. Kickstarter is an "All-or-Nothing" platform in which the entrepreneurs on the platform receive nothing unless the funding goal is achieved (Allison et al. 2015; Colombo et al. 2015; Da Cruz 2018). The platforms that employ the "Keep-it-All" model (e.g., IndieGoGo and GoFundMe) allow creators to obtain funds even if their projects fail to realize their initial goals (Joenssen et al. 2014). The three main parties (creators, backers, and platforms) of crowdfunding projects all hope for crowdfunding success. Creators hope to achieve the funding goals to get the money to carry out their business (Frydrych et al. 2014). Backers hope to successfully support a crowdfunding project to obtain material or spiritual benefits (Chaney 2019; Steigenberger 2017). Crowdfunding platforms can receive fees and payments from successful projects and enhance their reputations in the crowdfunding market (Belleflamme et al. 2015; Thies et al. 2018). Given the importance of crowdfunding (Mollick and Nanda 2016; Short et al. 2017), understanding the determinants of crowdfunding success can help these main parties achieve their respective purposes and share the benefits of successful projects.

Existing empirical studies on crowdfunding have identified many antecedents of project success, such as project characteristics (e.g., funding goal and duration) (Burtch et al. 2016; Mollick 2014; Younkin and Kuppuswamy 2018), project description (e.g., text quality and visual quality) (Anglin et al. 2018b; Scheaf et al. 2018; Zhou et al. 2018), as well as creator and backer characteristics (Davis et al. 2017; Johnson et al. 2018). In addition, prior research has conducted a literature review on crowdfunding and its success, which mainly focuses on reviewing the categories of crowdfunding and its success, and explaining the determinants of crowdfunding success within several types (Moritz and Block 2016; Popescul et al. 2020; Yuan et al. 2016). The most closely related review work on crowdfunding success in our study is the research of Kaartemo (2017) and Shneor and Vik (2020). Specifically, Kaartemo (2017) identifies and reviews four main determinants of crowdfunding success: project-, creator-, backer-, and platform-related factors. It synthesizes and evaluates the findings in empirical research by providing examples of these determinants. The researcher explains the effect of each determinant on crowdfunding success by reviewing the research findings of each representative study. Shneor and Vik (2020) identify the general trends and research gaps concerning independent variables based on each primary crowdfunding model (i.e., reward-, equity-, loan-, and donation-based) separately. Then, they further build several integrated frameworks for the influential independent variables based on each main crowdfunding model. The independent variables have similar measurements and persistently significant effects in a direction.

Our work serves as both a complement and a contrast to prior research in several ways. First, we aggregate the definitions and measurements of the determinants, as well as the effect of each determinant on crowdfunding success (i.e., positive, negative, or nonsignificant effects) within four types of factors (i.e., project-, creator-, backer-, and platform-related factors). Second, considering that different measurements of crowdfunding success and different crowdfunding models may lead to additional findings for the effect of a determinant, we identify how the factors influence the performance of project fundraising by considering different measurements of success and different crowdfunding models. Third, we subdivide some determinants and investigate whether different definitions of a determinant could influence the findings. Finally, we synthesize the relevant findings into a general framework that can assess the determinants of crowdfunding success. The framework comprises the platform and crowdfunding models, the main measurements of crowdfunding success, the classification of the determinants, the research methods, and the gaps in need of future attention. More importantly, it shows how different determinants affect crowdfunding success and how the measurement of crowdfunding success determines the research method. This study presents a comprehensive understanding of achieving crowdfunding success, which fills several research gaps by analyzing mixed empirical findings on the determinants of crowdfunding success.

We first plan the review by setting the research goals, literature search strategy, and selection criteria of the studies according to Hossain et al. (2019) and Leidner (2018). Ultimately, 94 empirical studies are selected. We then conduct a review and report our findings by assessing the measurements of crowdfunding success, the choice of research methods, the platform involved in each study, the sample size of each study, the definition of each determinant, and the findings regarding the determinants' impacts on crowdfunding success. Finally, we propose an integrated framework to show the current research and gaps in future attention.

Our work yields the following key findings. First, there are eight main methods for measuring the success of crowdfunding projects. The four most widely used measurements include the dichotomous variable *Funding Success* and the continuous variable *Funds Raised*, *Success Ratio*, and *Number of Backers*. The other measurements include *Time to Funding*, *Pledge/Backer Ratio*, *Decision to Invest*, and *Overfunding*. A specific measurement determines the choice of research method in that logistic/logit regression and probit regression are widely used in the literature on *Funding Success.* In contrast, linear regression is used for continuous measurements such as *Funds Raised* and *Success Ratio*. Second, we find that most studies widely analyze project- and creator-related determinants, whereas platform- and backer-related factors rarely appear in most studies. They warrant more intensive study in future research. Third, in different studies or even within the same paper, various measurements of crowdfunding success, different crowdfunding models, and different subdivided definitions of a determinant can lead to additional findings for the determinants' impacts on crowdfunding success.

Following is an outline of the remainder of this paper. "Research methodology" section describes the research methodology, including the research goals, search strategy, and inclusion and exclusion selection criteria. "Overview of selected studies" section provides an overview of the selected studies, including literature identification, measurements of crowdfunding success gleaned from the available literature,

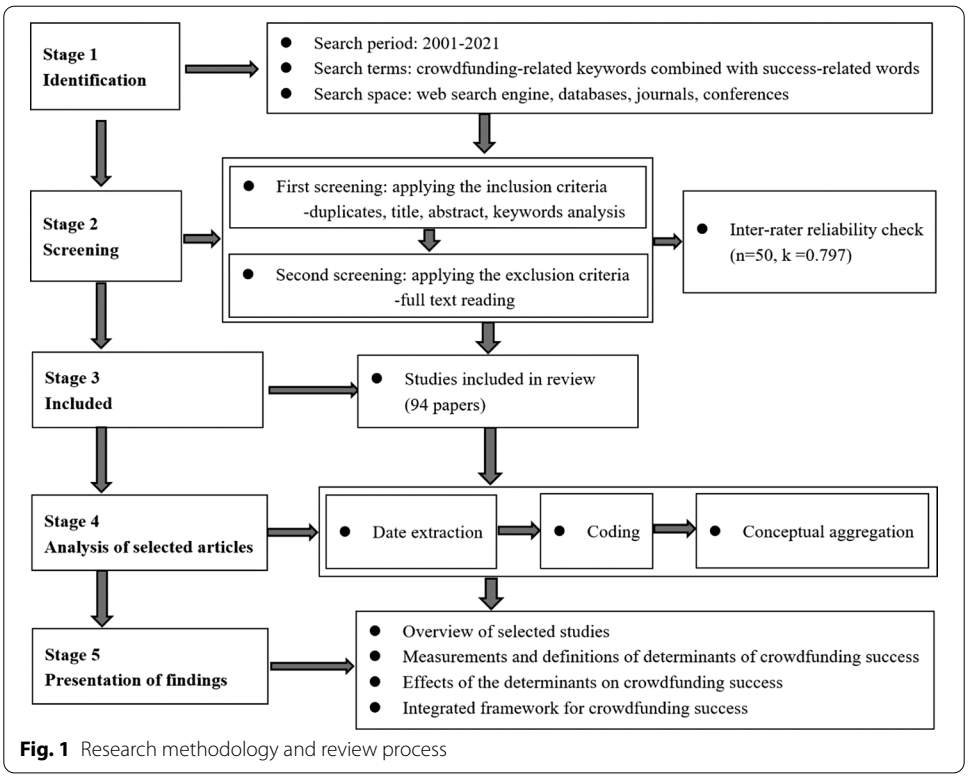

Fig. 1 Research methodology and review process

the choice of research methods, and the platforms involved in the selected papers. We report our findings in "Findings" section by classifying different determinants of crowdfunding success and considering each measurement of crowdfunding success and each crowdfunding model separately to identify how they influence the performance of project fundraising. The last two sections conclude the study, discuss the findings, and elucidate the contributions of our work.

Research methodology

Given the popularity of crowdfunding platforms among small entrepreneurs, it is essential to comprehensively understand the determinants of crowdfunding success to promote capital resource allocation efficiency. To this end, following the guidelines for literature search processes and review approaches proposed by Vom Brocke et al. (2009), Qazi et al. (2017), Leidner (2018) and Farias et al. (2019), we conduct a literature review on the determinants of crowdfunding success in the following steps. First, we plan the review by setting our research goals, search strategy, selection criteria, and the analysis procedure of the selected literature. Second, we review, report our findings, and construct an integrated framework for research on crowdfunding success. Figure 1 presents the specific stages and detailed steps of our study.

Research goals

Following Leidner (2018), we adopt an assessment review to overview the existing literature on crowdfunding success and identify the relationships between the determinants and crowdfunding success studied. We also assess the different research

methods that different studies use and key determinants of crowdfunding success that different studies focus on to identify the gaps in need of more future attention. Specifically, we aim to answer the following four questions: (1) How can crowdfunding success be measured? (2) What determinants can influence the success of a crowdfunding project, and how can these determinants be classified? (3) Do different measurements of crowdfunding success and different crowdfunding models result in different findings on the relationships between the determinants and crowdfunding success (i.e., positive, negative, or nonsignificant effects)? (4) Do different definitions of a determinant result in different findings regarding the relationship between the determinant and crowdfunding success?

Search strategy

Search period

First, we identify the search period. Given that the first crowdfunding platform (ArtistShare) was launched in 2001, we set the search period from 2001 to 2021.

Search terms

According to Hossain et al. (2019), key phrases are essential for a literature review. For this study, we use crowdfunding-related words (i.e., crowdfund, crowd-fund, crowd fund, crowd funder, crowd-funder, crowdfunding, and crowd funding) combined with success-related words (i.e., success, succeed, successful, performance, and outcome) as search terms to search for crowdfunding success-related studies.

Search spaces

We choose web search engines, databases, journals, and authoritative conferences to search for relevant literature as follows: (1) we search for relevant papers in web search engines, such as Google Scholar and Baidu Scholar, and several digital databases, including ScienceDirect, Web of Science (SCI and SSCI databases), EBSCOhost, and INFORMS, for journals, conference proceedings, working papers, theses, reports, and books; (2) we search the Social Science Research Network (SSRN) to avoid omitting the latest research that has been disclosed online in advance; (3) we also manually search nine journals in which the related works are most likely to appear, namely, Administrative Science Quarterly, Decision Support Systems, Entrepreneurship Theory and Practice, Information Systems Research, Journal of Business Venturing, Journal of Management Information Systems, Management Science, MIS Quarterly, and Organization Science, to ensure that we do not miss important relevant papers, and (4) we search papers from the proceedings of authoritative conferences in the fields of information systems and entrepreneurship, such as International Conference on Information Systems (ICIS), Americas Conference on Information Systems (AMCIS), International Conference on Innovation and Entrepreneurship (ICIE), and European Conference on Innovation and Entrepreneurship (ECIE).

Notably, the search scope for the papers in each web search engine, database, journal, or conference depends on the search restrictions of the different search sources. For

example, Google Scholar, Web of Science, and JSTOR allow us to search for the literature in all fields, while INFORMS and Taylor and Francis Online permit searching only by the title and abstract. Appendix 1 shows the sources of the studies and corresponding search scopes.

Inclusion and exclusion criteria

As we aim to provide a deep understanding of the significance and direction of the effects of the determinants on crowdfunding success, we set the inclusion and exclusion selection criteria to filter empirical papers and thus achieve the research goals of this study. Specifically, we set our inclusion and exclusion criteria according to Muller et al. (2019) and Qazi et al. (2017) as follows:

Inclusion criteria

The inclusion criteria are as follows: (1) the papers are related to the search items and keywords that we have described in "Search strategy" section; (2) peer-reviewed journals and conferences as well as working papers, theses, reports, and books, are all included; (3) only papers in English are included, and (4) full-text availability is essential. After screening the titles, abstracts, and keywords and deleting duplicates, we exclude papers that fail to meet the inclusion criteria and complete the first screening.

Exclusion criteria

After obtaining the relevant papers according to the inclusion criteria, we carefully read the full text of each article and apply the following exclusion criteria to select empirical papers that meet our research goals: (1) Studies without an empirical approach are excluded. Theoretical and review papers on crowdfunding and crowdfunding success are excluded. For example, we exclude the papers by Kaartemo (2017) and Popescul et al. (2020) based on this exclusion criterion because they are both review papers on the determinants of crowdfunding project success. (2) Papers that do not investigate the empirical effect (i.e., positive, negative, or nonsignificant effect) of a determinant on the success of crowdfunding projects are excluded. For example, we exclude the papers by Ryoba et al. (2020) and Huang et al. (2021) because they fail to study the empirical effect of the determinants of crowdfunding success. For example, Huang et al. (2021) is excluded because this study conducts sufficiency analysis to examine how multiple signals of entrepreneurs' credibility and project quality work together to produce crowdfunding success while failing to test each factor's significance. We also exclude Du et al. (2015) and Schraven et al. (2020). Although these two studies conduct empirical research and consider some determinants of crowdfunding success, they use the determinants only to predict crowdfunding performance rather than to investigate the influence of each determinant. (3) Cases, surveys, and experimental studies that explore the determinants of crowdfunding success in an offline context rather than based on a crowdfunding platform are excluded (Shneor and Vik 2020). This exclusion criterion is based mainly on three considerations. First, one purpose of our research is to develop a deep understanding of the crowdfunding platform involved in each study and survey the general trend of the platform on which crowdfunding projects and existing research are based. Second, we endeavor to ascertain how the platform as a determinant empirically influences the

success of a crowdfunding project. Third, we also aim to understand the determinants of crowdfunding success across different crowdfunding models (i.e., reward-, equity-, loan-, and donation-based crowdfunding projects), which are associated with platform features. For example, we exclude Lacan and Desmet (2017) according to this criterion because they collect data through an online survey rather than utilizing data from a real platform.

To assess the reliability of our inclusion and exclusion criteria, we apply Cohen's kappa statistic to check the level of agreement between the inter-raters (Pérez et al. 2020; Viera and Garrett 2005). Specifically, two research assistants responsible for selecting the articles independently rate a randomly selected sample of 50 articles according to the selection criteria. Their judgments are then analyzed using Cohen's kappa statistic. Finally, we obtain a result of 0.797, which reflects an "almost perfect agreement" level (Pérez et al. 2020) between the judgments of the two assistants, confirming that our selection criteria are acceptable.

Based on the inclusion and exclusion criteria, we complete the literature screening and select 94 empirical articles in total for our analysis in this review.

Analysis of selected literature

At this stage, the selected articles are carefully read. Related data are manually extracted and coded into a database including the following elements: author, year, title, literature type (i.e., journal, conference, working paper, thesis, report, or book), literature source (e.g., journal name or conference name), data source (i.e., platform), platform model (i.e., "All-or-Nothing" or "Keep-it-All"), crowdfunding model (i.e., reward-, equity-, loan-, or donation-based crowdfunding projects), sample size, the measurement of the dependent variable, the measurement of independent variables, identified associations between the dependent and independent variables (i.e., the significance and the directions of the effects), and the research methods. After data extraction and coding, we conduct a conceptual aggregation for the measurements of crowdfunding success, determinants of crowdfunding success, and research methods. We also aggregate the determinants' effects on crowdfunding success by considering different measurements of crowdfunding success and different crowdfunding models. "Overview of selected studies" and "Findings" sections explain the details.

Overview of selected studies

Literature identification, publication outlets, and trends

Our literature search results in a total of 94 empirical papers on the determinants of crowdfunding success for our literature review (Appendix 2 shows the list of 94 reviewed papers). Table 1 shows the main sources of the literature used in this study. The numbers of journal papers and conference papers are 80 and five, respectively. In addition, nine working papers, theses, reports, and books are included. The Journal of Business Venturing (13 articles) and Entrepreneurship Theory and Practice (10 articles) have published the most relevant papers in the search period. To understand the general research domains of the selected studies, we manually search for each journal involving the selected papers in Web of Science. Some journals cover more than one research domain. For example, MIS Quarterly covers computer science, information science and

Table 1 List of main literature sources

Literature sources		Research domains	Studies	#
Journal	Administrative Science Quarterly	Business and Economics	[1]	1
	Baltic Journal of Management	Business and Economics	[2,3]	2
	Business Horizons	Business and Economics	[4]	1
	Chinese Management Studies	Business and Economics	[5]	1
	Computers in Human Behavior	Psychology	[6]	1
	Decision Support Systems	Computer Science; Operations Research and Management Science	[7–10]	4
	Electronic Commerce Research and Applications	Business and Economics; Computer Science	[11–13]	3
	Entrepreneurship and Regional Development	Business and Economics; Development Studies	[14]	1
	Electronic Markets	Business and Economics	[15,16]	2
	Entrepreneurship Theory and Practice	Business and Economics	[17–26]	10
	German Economic Review	Business and Economics	[27]	1
	Information and Management	Computer Science; Business and Economics; Information Science and Library Science	[28]	1
	Information Systems Frontiers	Computer Science	[29]	1
	Information Systems Research	Information Science and Library Science; Business and Economics	[30]	1
	International Journal of Arts Management	Art and Humanities; Business and Economics	[31]	1
	International Journal of Contemporary Hospitality Management	Social Sciences; Business and Economics	[32]	1
	International Journal of Hospitality Management	Social Sciences	[33]	1
	Internet Research	Business and Economics; Computer Science; Telecommunications	[34,35]	2
	Journal of Advertising Research	Business and Economics; Communication	[36]	1
	Journal of Business Ethics	Business and Economics; Social Sciences	[37]	1
	Journal of Business Finance and Accounting	Business and Economics	[38]	1
	Journal of Business Research	Business and Economics	[39–43]	5
	Journal of Business Venturing	Business and Economics	[44–56]	13
	Journal of Cleaner Production	Engineering; Science and Technology; Environmental Sciences and Ecology	[57]	1
	Journal of Corporate Finance	Business and Economics	[58,59]	2
	Journal of Risk and Financial Management	Business and Economics	[60,61]	2
	Journal of the Association for Information Systems	Computer Science; Information Science and Library Science	[62]	1
	Management Science	Business and Economics; Operations Research and Management Science	[63–66]	4
	MIS Quarterly	Computer Science; Business and Economics; Information Science and Library Science	[67]	1

Table 1 (continued)

Literature sources		Research domains	Studies	#
	Online Information Review	Computer Science; Information Science and Library Science	[68]	1
	Organization Science	Business and Economics	[69]	1
	Pacific-Basin Finance Journal	Business and Economics	[70]	1
	Small Business Economics	Business and Economics	[71–74]	4
	Sustainability	Science and Technology; Environmental Sciences and Ecology	[75,76]	2
	Technological Forecasting and Social Change	Business and Economics; Public Administration	[77,78]	2
	Technovation	Engineering; Business and Economics; Operations Research and Management Science	[79]	1
	Venture Capital	Business and Economics	[80]	1
Conference	ECIS, HICSS, ICIS	Computer Science	[81–85]	5
Others: working paper, thesis, report, book			[86–94]	9
Total				94

library science, and business and economics. In addition, some research domains in the Web of Science include several subdomains. For example, computer science includes subdomains such as information systems, artificial intelligence, and theory and methods. We report each selected journal and conference's research domain(s) in Table 1 and the domain distribution of all selected studies in Fig. 2. As shown in Fig. 2, the selected papers involve 14 research domains, among which the business and economics (66 papers) and computer science (19 papers) domains are the most common.

Table 2 shows the temporal distribution of the selected papers, indicating that the papers analyzed in our study are from 2011 to 2021. The determinants of crowdfunding success have been prevalent in the academic community since 2014.

Measurements of crowdfunding success

Crowdfunding is defined as acquiring financial support from the crowd for various special tasks through the Internet and providing a product, equity, reward, or interest for the funders after the project's success (Belleflamme et al. 2014). Individuals or groups that need financial support from the crowd can create a project, post information about it on a crowdfunding platform, and receive backing. Accordingly, crowdfunding success is defined as success in fundraising for a project on a crowdfunding platform, which depends on the funding model (i.e., "All-or-Nothing" or "Keep-it-All") employed by the platform (Yuan et al. 2016). Numerous scholars have investigated the determinants of crowdfunding success by using various measurements to meet their research purposes. Table 3 shows the measurements of crowdfunding success used in the 94 selected empirical studies.

The 94 selected empirical studies use eight main ways to measure crowdfunding success. Most of them (57 papers) use *Funding Success*, which means achieving the funding goal, as the measurement of crowdfunding success. It is a dummy variable: if a project reaches its funding goal within the given time, it is coded as "1"; otherwise, it is coded as

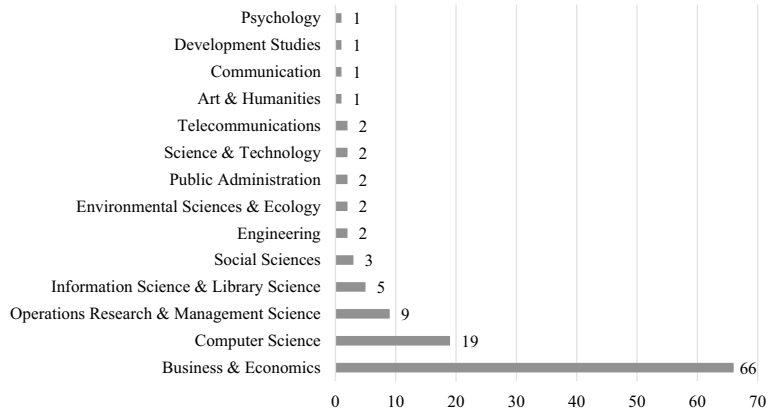

Fig. 2 Research domain distribution of selected studies

Table 2 Temporal distribution of selected studies

Year	Number of publications
2011	1
2012	1
2013	1
2014	7
2015	11
2016	12
2017	11
2018	15
2019	13
2020	13
2021	9
Total	94

"0" (Anglin et al. 2018a). In contrast, 22 of the 94 papers use *Success Ratio* (funds raised divided by the funding goal) to measure crowdfunding success. However, some researchers argue that a project aiming to raise a small number of funds will be more likely to succeed; thus, 27 of the 94 studies use *Funds Raised* (the total amount pledged at the end of the project) as a proxy for crowdfunding success (Evers 2012). In addition, 21 papers use the number of individuals who support a project, labeled backers (i.e., *Number of Backers*), to measure the success of a crowdfunding project. The other parameters considered for measuring crowdfunding success include *Time to Funding* (six papers), *Pledge/Backer Ratio* (four papers), *Decision to Invest* (three papers), and *Overfunding* (three papers). Notably, *Decision to Invest* is a measurement that reflects the attraction of a crowdfunding project so that it can be regarded as a project's performance and success. Crowdfunding projects that attract more investment may become more successful (Agrawal et al. 2011; Davis et al. 2017). Three studies use *Decision to Invest* as an indicator of crowdfunding success in terms of funders' capital allocation decisions in dollars

Table 3 Measurements of crowdfunding success

Crowdfunding success	Measurement	Studies	#
Funding success	For projects that meet their goal, the success variable is coded as '1', and '0' otherwise	[1–6, 10–12, 15, 16, 18–21, 23, 26, 27, 29, 32, 34, 37–39, 45, 46, 48, 51, 53–60, 62, 63, 65, 66, 70, 72, 73, 76, 77, 79, 80, 82–85, 87, 88, 90, 92–94]	57
Funds raised	The total funds raised at the end of the project	[2–6, 9, 10, 14, 19, 25, 30, 31, 38, 41, 49, 51, 53, 54, 56, 59–61, 64, 75, 76, 80, 91]	27
Success ratio	The total funds raised divided by the funding goal	[6, 10, 13, 16, 28, 33, 36, 38, 42–44, 59, 61, 62, 68, 69, 71, 74, 78, 81, 89, 94]	22
Number of backers	A continuous variable for the number of individuals that support a project	[2, 6, 8–10, 17, 19, 25, 31, 40, 41, 43, 50, 53, 59, 73, 75–79]	21
Time to funding	The number of days a project takes to complete the first round of financing	[7, 24, 25, 47, 60, 80]	6
Pledge/backer ratio	The total funds raised divided by the total number of backers	[14, 22, 31, 78]	4
Decision to invest	Backers' investing decision	[52, 67, 86]	3
Overfunding	Projects that are overfunded	[3, 35, 60]	3

(Davis et al. 2017), funders' investment propensity (i.e., the probabilities lie between zero and one) (Agrawal et al. 2011), and lending transactions between a lender and a borrower (Burtch et al. 2014). Moreover, 31 papers use more than one measurement of crowdfunding success and conduct an empirical analysis based on each measurement. Appendix 3 presents the studies using multiple measurements of crowdfunding success. For example, Hervé et al. (2019) use *Funding Success, Funds Raised,* and *Success Ratio* separately to investigate the crowdfunding project's success determinants.

Use of research methods

The definition and measurement of crowdfunding success mainly determine the choice of research method. Table 4 summarizes the research methods used in selected studies. The most commonly used research methods in the selected studies are linear regression (45 papers), logistic/logit regression (41 papers), probit regression (12 papers), and negative binomial regression (11 papers). *Funding Success* as a dummy variable is widely used in the selected studies. Thus, among the 57 studies using *Funding Success* to measure crowdfunding success, 41 use logistic/logit regression and 12 use probit regression as their main method. Studies measuring crowdfunding success in terms of *Funds Raised, Success Ratio, Number of Backers*, *Time to Funding*, or *Pledge/Backer Ratio* generally use linear regression (23, 18, 11, 4, and 4 papers, respectively). In addition, negative binomial regression is widely used in studies based on *Number of Backers* (nine papers). Studies using multiple measurements of crowdfunding success usually use different research methods to conduct empirical analyses. For example, Ahlers et al. (2015) use linear regression to investigate the determinants that influence *Funds Raised,* negative binomial regression to explore the determinants of *Number of Backers*, and survival analysis to conduct empirical studies on *Time to Funding.* Appendix 3 shows detailed information.

Table 4 Research methods in the literature

Research method	Studies	#
Linear regression	[2–7, 9, 13, 14, 16, 19, 22, 24, 25, 28, 31, 33, 35, 36, 38, 40–42, 44, 47, 49, 52–54, 56, 59–62, 69, 74–76, 78–81, 89, 91, 94]	45
Logistic/logit regression	[1, 2, 4–6, 11, 12, 15, 16, 18–20, 29, 32, 37, 45, 46, 48, 51, 53–57, 59, 60, 62, 63, 65, 66, 72, 73, 76, 77, 79, 80, 82, 85, 90, 92, 93]	41
Probit regression	[3, 21, 23, 27, 38, 39, 58, 70, 83, 87, 88, 94]	12
Negative binomial regression (including Poisson model)	[8, 17, 25, 31, 43, 50, 51, 67, 73, 75, 77]	11
Tobit regression	[30, 64, 71]	3
Survival analysis (e.g., Cox proportional hazards models)	[25, 26, 80]	3
Stochastic actor-based models	[84]	1
Partial least squares structural equation modeling (PLS-SEM)	[68]	1
Linear probability model	[86]	1
Discriminate function	[34]	1

Platforms involved

As mentioned above, different platforms adopt different platform models and crowdfunding models. A platform may follow an "All-or-Nothing" or "Keep-it-All" model or even apply a rule that mixes "All-or-Nothing" with "Keep-it-All". In addition, crowdfunding projects can follow one of four crowdfunding models: reward-, equity-, loan-, and donation-based projects (Burtch et al. 2013), determined by the platform rule. Table 5 lists the platforms used in the 94 selected studies.[1] As shown, more than 20 platforms are explored in the selected papers. Eighty-six out of 94 studies collect data from "All-or-Nothing" platforms, and only 3 collect data from "Keep-it-All" platforms. Those platforms mixing the "All-or-Nothing" rule with the "Keep-it-All" rule are investigated in six papers. Most of the studies considered in our review focus on reward-based crowdfunding model (79 papers) and 19 studies examine projects from equity-based platforms. Notably, the most widely studied reward-based platform is Kickstarter (53 papers), and the most widely studied equity-based platform is Crowdcube (eight papers), both following the "All-or-Nothing" rule. The project creators on these two platforms must follow the "All-or-Nothing" rule, under which the failure to reach the funding goal means that the creator cannot obtain the funds raised, thereby rendering the project unsuccessful (Parhankangas and Renko 2016). IndieGoGo, studied by five papers, is a platform mixing the "All-or-Nothing" rule with the "Keep-it-All" rule. The creators on this platform can choose to follow one of the rules and can keep the funding raised even if the project fails to reach its funding goal if they choose to follow the "Keep-it-All" rule (Zhou et al. 2018). Some studies have investigated crowdfunding projects using more than one platform. For example, Giudici et al. (2018) collect information on crowdfunding projects from 13 Italian reward-based platforms. They investigate the effects of the total number of projects funded on a platform and platform dummies on crowdfunding success. Josefy et al. (2017) collect data on crowdfunding projects from Kickstarter

[1] In Table 5, we classify the projects first according to the platform model and then based on the crowdfunding model. However, some articles only disclose the crowdfunding model of the projects while failing to introduce the platform model. These articles are not classified in Table 5; however, they are reviewed in the manuscript. This rationale explains why a greater number of papers are reviewed in the manuscript than are listed in Table 5.

Table 5 Platforms involved in the literature

Platform model	Crowdfunding model	Platform	Studies	#
All-or-Nothing	Reward-based	Companisto	[78]	1
		Crowdfunder	[61]	1
		Democracy VC	[78]	1
		Demohour	[28, 68]	2
		Dreamore	[11, 13, 61]	3
		FlyingV	[70]	1
		Kickstarter	[1, 6, 8, 10, 14, 15, 18–23, 28, 29, 31–37, 41–46, 48, 50–56, 59, 60, 62, 63, 66, 69, 74, 76, 79, 81–84, 89, 90, 92–94]	53
		Seedmatch	[78]	1
		Start Engine	[78]	1
		Zhongchou	[4, 5, 7, 40]	4
		100-days.net	[85]	1
	Equity-based	ASSOB	[25]	1
		Companisto	[80]	1
		Crowdcube	[3, 17, 58, 72, 73, 77, 80, 90]	8
		FundedByMe	[80]	1
		Invesdor	[9, 80]	2
		Seedrs	[3, 72, 77]	3
		SyndicateRoom	[3]	1
	Donation-based	Startnext	[87]	1
	Loan-based	Kiva	[24, 26, 47, 67, 90]	5
Keep-it-all	Reward-based	LaunchGood	[2]	1
	Donation-based	GoFundMe	[19]	1
	Loan-based	Smava	[27]	1
Mixing all-or-nothing with keep-it-all	Reward-based	IndieGoGo	[39, 57, 88, 91, 94]	5
		WiSEED	[38]	1

and GoFundMe to explore whether the platform type (i.e., under the "All-or-Nothing" or "Keep-it-All" rule) can influence the success of a crowdfunding project.

Sample size

The sample size of each selected article ranges from 50 to 403,445 observations, which could be related to the research period. For example, Bengtson (2019) samples 50 observations from Kickstarter, Crowdcube, and Kiva, respectively, concluding some projects between August 2018 and February 2019, while Wang et al. (2021) investigate 328,947 projects from Kickstarter between April 2009 and April 2019, and Moss et al. (2015) take 403,445 loans from Kiva between 2006 and 2012. More specifically, 41 out of 94 papers have fewer than 1000 observations, 27 papers are between 1000 and 10,000, 23 papers are between 10,000 and 100,000, and only seven papers have more than 100,000 observations. Appendix 2 presents the details of the sample sizes of the selected papers.

Findings

Definitions and measurements of determinants of crowdfunding success

According to the extant literature, we identify four types of determinants of crowdfunding success according to Koch and Siering (2015), Kaartemo (2017) and Zhou et al. (2018): project-, creator-, backer-, and platform-related factors. Table 6 lists the definitions and measurements of the determinants. We also display the direction of influence of each determinant involved in the selected articles.

Project-related factors

Project-related factors reflect project characteristics and the soft information associated with the project (Cumming et al. 2015). Specifically, project characteristics are the characteristics of the funding campaigns and products. As shown in Table 6, the commonly investigated project characteristics include the funding goal (*Goal*), the amount of early funds that the project has received before an additional backer's investment (*Early Funds*), the number of early backers before an additional backer's investment (*Early Backers*), the number of total backers at the end of the funding period (*Total Backers*), the total funds raised divided by the total number of backers (*Pledge/Backer Ratio*), the total funding duration (*Duration*), the reward promised (*Reward*), the creator's team size (*Team Size*), the launch date-related variables (*Launch Date Related*), the need similarity (*Need Similarity*), the innovativeness of the product being funded (*Innovativeness*), the number of pledge levels (*Pledge Level*), the level of risk (*Risk Level*), the use of the funds raised (*Use of Funds Raised*), the percentage of equity offered in the campaign (*Equity Offered*), the expected outcome for the projects (*Expected Outcome*), and the category to which the project belongs (*Category*). Among the 94 selected papers, the most commonly examined project characteristics are *Goal* (78 papers), *Duration* (56 papers), *Category* (56 papers), *Reward* (27 papers), and *Team Size* (19 papers). *Goal* and *Duration* generally negatively impact crowdfunding success, while *Reward* and *Team Size* could positively influence crowdfunding success. Studies investigating the *Category* effect usually consider it as a control variable by adding a set of industry category dummies to the models (41 papers). However, some studies also explore the main effect of *Category* on crowdfunding success (17 papers). For example, Greenberg and Mollick (2017) investigate the effect of different industry categories (i.e., publishing, fashion, games, and technology) on the success of crowdfunding projects and find that publishing and fashion-related projects are more likely to succeed in fundraising.

According to Cumming et al. (2015), soft information about fundraising projects should also be considered. It is the information provided to inform the crowd about the project that visitors and backers can access during and after the project and the knowledge that creators commonly update on the project page to attract more backers. The description of a project is the most critical soft information that potential backers need to understand a project and make their final decisions (Zhou et al. 2018), which includes text-related factors (*Text*) and visual-related factors (*Visual*). The text's narrative characteristics, such as text quality, readability, sentiment, word count, spelling errors, linguistic style, and specific terms, can influence backers' understanding of a project, and 43 papers investigate this factor. Forty-seven papers explore visual-related factors such as video- and image-related factors. Some studies examine videos or images separately

Table 6 Definitions, measurements, and effects of determinants

Determinant	Definition and measurement	Studies	#	Effect	Studies	#
Project-related factors associated with crowdfunding success: project characteristics						
Goal	Funding goal set at the start of a project	[2–7, 9–11, 13, 15–30, 32–37, 39–42, 45–66, 68, 70–74, 76–79, 81–83, 85, 87, 88, 90, 91, 93, 94]	78	Positive	[2–6, 9, 10, 19, 22, 24, 26, 28, 41, 47, 48, 50, 52, 53, 56, 60, 61, 65, 73, 77–79, 91]	27
				Negative	[4–7, 10, 11, 13, 15, 16, 18, 20, 21, 23, 27, 29, 30, 32–35, 37, 39, 42, 46, 51, 53–64, 66, 68, 70–72, 74, 76, 78, 79, 81–83, 85, 87, 88, 90, 93, 94]	55
				Non-significant	[2, 3, 9, 17, 19, 25, 36, 40, 45, 49, 54, 56, 59, 72, 73, 76, 77, 90]	18
Early funds	Cumulative/proportion/average early funds that the project has been funded before an additional backer's investment	[7, 18, 21, 49, 50, 86]	6	Positive	[7, 18, 21, 50, 86]	5
				Negative	[49]	1
Early backers	Number of early backers before an additional backer's investment	[17, 18, 21, 50]	4	Positive	[17, 21, 50]	3
				Non-significant	[18]	1
Total backers	Number of total backers at the end of the funding period	[3, 13, 34, 35, 43, 60, 61, 78, 89, 94]	10	Positive	[3, 13, 35, 43, 60, 61, 78, 89, 94]	9
				Negative	[34]	1
				Non-significant	[60, 61]	2
Pledge/backer ratio	The total funds raised divided by the total number of backers	[78]	1	Positive	[78]	1
Duration	A project's total funding duration	[2, 4–6, 9–11, 13–18, 20–23, 27–36, 39–41, 43, 46, 48, 51, 53, 54, 56, 57, 59, 60, 65, 66, 68, 70, 74–76, 79, 81–83, 87, 88, 92–94]	56	Positive	[14, 28, 31, 39, 48, 56, 57, 59, 65, 81, 94]	11
				Negative	[2, 4–6, 9–11, 13, 15, 18, 20, 23, 27–30, 33, 34, 40, 41, 43, 53, 54, 60, 66, 68, 70, 75, 76, 87, 88, 92, 93]	33
				Non-significant	[2, 9, 16, 17, 21, 22, 32, 35, 36, 46, 51, 53, 54, 59, 74, 79, 82, 83]	18
Reward	The reward promised for a project: Rewards quality/level/type/number/availability that a project offers	[2, 4, 5, 13, 16, 20, 23, 29, 31, 33–36, 41, 42, 51, 55, 57, 62, 63, 70, 79, 81, 88, 89, 91, 93]	27	Positive	[2, 4, 16, 20, 23, 29, 31, 34, 35, 41, 51, 62, 63, 70, 79, 81, 88, 93]	18
				Negative	[13, 34, 36, 89]	4
				Non-significant	[2, 4, 5, 16, 23, 31, 33, 42, 51, 55, 57, 91]	12

Table 6 (continued)

Determinant	Definition and measurement	Studies	#	Effect	Studies	#
Team size	Number of project creators	[12, 17, 25, 39, 44, 46, 49, 55, 56, 65, 71, 72, 77, 78, 80, 85, 88, 90, 91]	19	Positive	[12, 25, 39, 46, 49, 55, 65, 72, 77, 78, 80, 85, 88, 90, 91]	15
				Non-significant	[17, 25, 44, 56, 71, 78, 90]	7
Launch date related	The time (expressed in days) elapsed since previous project; days left in the funding period, launched in weekend, time to product delivery, a continuous numeric value measuring campaign recency	[23, 37, 43, 56, 79]	5	Positive	[23, 43, 79]	3
				Negative	[37, 79]	2
				Non-significant	[43, 56]	2
Need similarity	Percentage of backers who request products as a reward	[46]	1	Positive	[46]	1
Innovativeness	The innovativeness of product	[26, 46, 52, 56, 76]	5	Positive	[46, 52, 76]	3
				Non-significant	[26, 56]	2
Pledge level	Number of pledge levels	[6, 10, 13, 43, 62]	5	Positive	[6, 10, 13, 43, 62]	5
Risk level	The level of risk	[75]	1	Negative	[75]	1
				Non-significant	[75]	1
Use of funds raised	RandD, working capital, marketing and market expansion	[80]	1	Positive	[80]	1
				Non-significant	[80]	1
Equity offered	The percentage of equity offered in the campaign	[3, 72, 73, 77, 80]	5	Positive	[3]	1
				Negative	[72, 77, 80]	3
				Non-significant	[3, 73, 80]	3
Expected outcome	Sales growth, margin, return	[75, 80]	2	Positive	[75, 80]	2
				Non-significant	[80]	1
Category	Industry category (e.g., environmental or non-environmental, social or non-social, profit or non-profit, category dummies)	[1, 3–8, 10, 13, 15, 18, 20–24, 29, 31, 36, 37, 39, 41, 43, 45, 47–50, 53–55, 57–60, 62, 63, 66, 68, 70, 72–78, 81–83, 85, 87–91]	56	Independent variables: dummy variables	[1, 36, 37, 39, 41, 43, 45, 57, 66, 70, 73, 75–78, 89, 90]	17
				Control variables: a set of industry category dummies	[3–8, 10, 13, 15, 18, 20–24, 29, 31, 47–50, 53–55, 58–60, 62, 63, 66, 68, 70, 72, 74, 81–83, 85, 87, 88, 91]	41

Table 6 (continued)

Determinant	Definition and measurement	Studies	#	Effect	Studies	#
Project-related factors associated with crowdfunding success: soft information						
Text	The text's narrative characteristics that provided for a project: text quality/readability/sentiment/word count/spelling errors/linguistic styles/specific terms (e.g., risk, money-related, specific topics, community-oriented)	[4–7, 10, 13, 15, 16, 20, 22, 24, 28, 29, 32, 33, 36, 37, 39–45, 47, 48, 52–55, 59, 60, 63, 66, 67, 74, 79, 81–83, 87, 88, 91]	43	Positive	[4–6, 10, 13, 15, 16, 20, 28, 29, 32, 33, 37, 39, 40, 42, 43, 48, 53, 54, 59, 60, 63, 66, 74, 79, 81–83, 88, 91]	31
				Negative	[6, 10, 20, 22, 29, 32, 41, 43, 52, 59, 60, 63, 91]	13
				Non-significant	[5–7, 10, 13, 16, 24, 32, 33, 36, 43–45, 47, 54, 55, 59, 60, 66, 67, 74, 79, 87, 88]	24
Visual	The visual characteristics that provided for a project: video quality/length/count/availability, image count/availability/quality/valence, visual (including video and image) count/availability	[2, 4, 5, 10–12, 15, 16, 19–23, 29, 32–34, 36, 39, 40, 42–44, 48, 52–54, 56, 57, 59, 61, 63, 66, 71, 74, 76, 78, 81–83, 85, 87, 88, 90–92, 94]	47	Positive	[4, 5, 10, 11, 15, 16, 19, 20, 23, 29, 33, 34, 40, 42, 43, 48, 53, 54, 56, 57, 59, 61, 63, 66, 76, 78, 81–83, 85, 87, 88, 90, 91]	34
				Negative	[11, 39, 76, 92]	4
				Non-significant	[2, 12, 21, 22, 32, 33, 36, 42, 44, 52, 61, 66, 71, 74, 76, 78, 85, 90, 94]	19
Social network	External links to social networks (like Facebook, Twitter, or any other community website)	[2, 9, 18, 20, 21, 23, 34, 38–42, 44, 50, 51, 54, 62, 76, 78, 80, 85, 87, 88, 91–93]	26	Positive	[9, 18, 20, 23, 38–42, 44, 50, 51, 54, 62, 78, 80, 87, 93]	18
				Negative	[34, 76, 88]	3
				Non-significant	[2, 21, 23, 51, 78, 85, 91, 92]	8
Updates	Number of updates about a project made by the creators to inform the crowd	[2, 5–8, 10, 11, 14, 20, 22, 32–35, 39, 42, 43, 48, 50, 60–62, 66, 70, 74, 81–83, 85, 89, 91–94]	34	Positive	[2, 5–7, 10, 20, 32–35, 39, 42, 43, 48, 50, 60–62, 66, 70, 81–83, 85, 89, 91–93]	28
				Negative	[8, 60]	2
				Non-significant	[2, 5, 11, 14, 22, 61, 74, 94]	8
Comment	Comment quantity/availability/length/sentiment/replies/previous comment	[6, 7, 10, 11, 13, 14, 20, 22, 23, 32, 33, 35, 39, 40, 42–44, 61, 62, 66, 74, 81, 83, 89, 91, 93, 94]	27	Positive	[6, 7, 10, 11, 13, 14, 20, 23, 32, 33, 35, 39, 40, 42–44, 61, 62, 66, 81, 83, 89, 91, 93]	24
				Negative	[13, 43]	2
				Non-significant	[11, 22, 61, 74, 94]	5
Staff_pick	Presence of "staff pick" quality tags provided by Kickstarter	[18, 23, 32, 33, 37, 51, 53, 54, 81]	9	Positive	[18, 23, 32, 33, 37, 53, 54, 81]	8
				Negative	[51]	1
				Non-significant	[23, 51]	2

Table 6 (continued)

Determinant	Definition and measurement	Studies	#	Effect	Studies	#
Shares	Number of shares on Facebook	[2, 14, 16, 18, 20, 34, 39, 55, 62]	9	Positive	[2, 14, 16, 18, 20, 34, 39, 55, 62]	9
Recommend	Front page, featured, recommend by the platform	[43, 48, 62, 66, 69, 87]	6	Positive	[43, 48, 62, 66, 87]	5
				Non-significant	[69]	1
Likes	"like" count of a project, fake Facebook likes, a dummy	[5, 8, 40, 62]	4	Positive	[5, 40, 62]	3
				Negative	[8]	1
Media coverage	Media coverage on the project	[44, 46]	2	Positive	[44, 46]	2
Signals	Signal portfolios in high noise environment: Rhetorical and Substantive signals	[69]	1	Positive	[69]	1
				Negative	[69]	1
				Non-significant	[69]	1
Followers	The total number of followers of a project	[5, 6]	2	Positive	[5, 6]	2
				Negative	[6]	1
				Non-significant	[6]	1
FAQs	Number of frequently asked questions on campaign pages/comment to answer questions	[5, 42, 43]	3	Positive	[5, 42, 43]	3
				Negative	[43]	1
Creator-related factors associated with crowdfunding success						
Preparedness	Five-item preparedness scale is used to measure the cognitive engagement	[22, 46, 52]	3	Positive	[46, 52]	2
				Non-significant	[22]	1
Passion	The entrepreneurial passion a creator perceives	[22, 46, 52]	3	Negative	[52]	1
				Non-significant	[22, 46]	2
Innovativeness	The creativity of entrepreneurs	[22]	1	Positive	[22]	1
				Negative	[22]	1
Sexual orientation	A dummy variable coded "1" if a creator identified as lesbian, gay, bisexual, transgender, or queer; otherwise, it is coded "0"	[53]	1	Negative	[53]	1
				Non-significant	[53]	1
User entrepreneurship	The entrepreneurs who create and commercialize the new product or service are also those who use that product or service	[46]	1	Positive	[46]	1

Table 6 (continued)

Determinant	Definition and measurement	Studies	#	Effect	Studies	#
Experience	Previous created (ratio/number of previous projects created), previously successful created (ratio/number of previous projects created), previous backed (ratio/number of previous projects backed), previously successful backed (ratio/number of previous projects created), entrepreneurial experience	[2, 3, 5, 11–13, 15, 18, 20, 23, 27–29, 31, 41–46, 52–56, 59–62, 65, 66, 68, 70, 72–74, 77, 79–82, 84, 89]	43	Positive	[3, 5, 11, 13, 15, 20, 27–29, 31, 41, 42, 45, 53, 55, 56, 59–62, 65, 68, 70, 72, 74, 79–82, 89]	30
				Negative	[2, 23, 31, 41, 43, 52, 60, 66]	8
				Non-significant	[2, 12, 18, 23, 31, 44, 46, 53, 54, 56, 60, 61, 66, 70, 73, 77, 79, 80, 82, 84]	20
Education	A creator's education degree	[3, 44, 49, 52, 54–56, 73, 80]	9	Positive	[3, 73, 80]	3
				Negative	[55]	1
				Non-significant	[44, 49, 52, 54, 56, 80]	6
Patent ownership	The patent that a creator has possessed or filed (number/dummy)	[12, 17, 25, 44, 58, 72, 73]	7	Positive	[44]	1
				Non-significant	[12, 17, 25, 58, 72, 73]	6
Facebook friends	Number of creator's Facebook friends	[14, 15, 18, 20, 23, 28, 29, 34, 35, 45, 48, 51, 53, 54, 62, 63, 65, 81, 82, 87]	20	Positive	[14, 15, 18, 20, 23, 28, 29, 48, 53, 54, 62, 63, 65, 81, 87]	15
				Negative	[34, 35, 65]	3
				Non-significant	[45, 51, 53, 62, 82]	5
Culture	Cultural difference	[19, 67]	2	Positive	[19]	1
				Negative	[67]	1
Geography	Geographic distance, a dummy variable, a categorical variable, country-level capital, group test	[2, 3, 6, 16, 18, 21, 23, 28, 31, 38, 45, 48, 51, 59–61, 64, 67, 74, 78, 79, 84, 86, 94]	24	Positive	[6, 18, 21, 31, 51, 64]	6
				Negative	[6, 31, 51, 60, 67, 79]	6
				Non-significant	[2, 3, 23, 31, 38, 45, 48, 51, 59, 60, 74, 78, 79, 84, 94]	15
				Group test	[16, 28, 61, 86]	4
Race	Ethnicity, Caucasian or not	[44, 46, 52–54, 56, 63]	7	Positive	[52–54, 56]	4
				Negative	[63]	1
				Non-significant	[44, 46]	2
Language	Common language	[39, 85]	2	Negative	[39]	1
				Non-significant	[85]	1

Table 6 (continued)

Determinant	Definition and measurement	Studies	#	Effect	Studies	#
Creator type	Group or individual	[2, 3, 12, 19, 26, 41, 47, 55, 60, 66, 71, 85]	12	Positive	[19, 26, 41, 55, 60, 71, 85]	7
				Negative	[3, 12, 47, 60, 66]	5
				Non-significant	[2, 12, 19, 60]	4
Gender	A creator's gender	[2, 19, 21, 26, 27, 38, 44, 46, 47, 51–56, 59, 60, 63, 71, 76, 78, 84]	22	Positive	[19, 26, 38, 47, 51, 53, 56, 60, 63, 71, 84]	11
				Negative	[21, 46, 54, 55, 59, 76]	6
				Non-significant	[2, 21, 27, 38, 44, 52, 53, 56, 60, 78]	10
Credibility	The creator's credibility variable that reflects the trust from backers	[2, 59]	2	Positive	[2, 59]	2
Picture/logo	The presence of the creator's picture or the organization logo on the project's webpage	[2]	1	Positive	[2]	1
				Non-significant	[2]	1
Entrepreneur aspect	Entrepreneur-oriented narrative	[10]	1	Positive	[10]	1
				Negative	[10]	1
				Non-significant	[10]	1
Brand prominence	A dummy variable, presence of a brand in the project title = 1, otherwise = 0	[42]	1	Positive	[42]	1
Self-funding	Funding received from the fundraiser behind it	[4]	1	Positive	[4]	1
Firm age	A categorical variable, firm age in days, a dummy variable indicates start-up	[3, 72, 73, 80]	4	Positive	[3]	1
				Negative	[3, 72, 80]	3
				Non-significant	[3, 72, 73]	3
Prior funding	Funding raised before the campaign	[3, 72, 73]	3	Positive	[3, 72, 73]	3
				Negative	[3]	1
				Non-significant	[73]	1
Diversification	The number of 4-digit SIC codes associated with a firm	[3]	1	Negative	[3]	1
				Non-significant	[3]	1
Backer-related factors associated with crowdfunding success						

Table 6 (continued)

Determinant	Definition and measurement	Studies	#	Effect	Studies	#
Funder positive affective reactions	Ten items from the PANAS that are related to positive effects are chosen to be the measurement (Watson et al., 1988)	[52]	1	Positive	[52]	1
Motive	Motives that determine potential donors' helping behavior	[91]	1	Positive	[91]	1
Experience	A backer's accumulative number of previous investments, Prior success: ratio, A dummy variable	[7, 49, 66]	3	Positive	[49, 66]	2
				Negative	[66]	1
				Non-significant	[7]	1
Platform tenure	A backer's platform tenure on a given platform	[7]	1	Non-significant	[7]	1
Geography	Percentage of backers from the same city as the campaign	[33]	1	Positive	[33]	1
Platform-related factors associated with crowdfunding success						
Competition	Number of projects being funded on the platform	[41, 71]	2	Positive	[41]	1
				Non-significant	[71]	1
Platform type	The type of a platform (e.g., keep-it-all or all-or-nothing)/ group test	[13, 19, 72, 77, 88, 90, 94]	7	Positive	[77]	1
				Negative	[19, 88]	2
				Non-significant	[19, 72, 77, 90, 94]	5
				Group test	[72, 90]	2
				Control	[13]	1
Platform age	The number of years since platform establishment at time of campaign	[16]	1	Positive	[16]	1
				Negative	[16]	1
				Non-significant	[16]	1

(Crosetto and Regner 2014; Younkin and Kuppuswamy 2018), and some combine them as visual factors to explore their effect (Colombo et al. 2015). Three additional important factors considered by most papers are *Social Network* (26 papers), *Updates* (34 papers), and *Comment* (27 papers), which can inform the crowd about the newest information and process of the projects. *Social Network* refers to external links to social networks (e.g., Facebook, Twitter, or other community websites). *Updates* reflect the number of updates made by the project creators during and after the funding period. *Comment* measurement varies across papers, and comment quantity is the most widely used measurement (25 papers). The extant literature has also investigated comment length, comment sentiment, comment replies, the availability of comments, and previously created/backed comments. These determinants related to soft information are generally found to positively affect the success of crowdfunding projects. In addition, soft information such as the presence of "staff pick" quality tags provided by Kickstarter (*Staff_pick*), the number of shares on Facebook (*Shares*), the recommendations by the platform (*Recommend*), the "like" count of a project (*Likes*), media coverage on the project (*Media Coverage*), the signals of projects and products (*Signals*), the total number of followers of a project (*Followers*), and the questions asked and answered on campaign pages (*FAQs*) are also found to influence crowdfunding success. These factors, which are triggered by either the platform or the backers, reflect a project's popularity or importance and are thus considered as soft information about a project.

Creator-related factors

Creator-related factors are those associated with the individual, entrepreneur, or firm that creates the project. Forty-three papers examine project creators' previous (or previous successful) creation and backing experience or entrepreneurial experience (*Experience*). Other common factors in most of the empirical studies include geographic distance or dummies (*Geography*, 24 papers), creators' gender (*Gender*, 22 papers), number of creators' Facebook friends (*Facebook Friends*, 20 papers), whether a creator is a group or an individual (*Creator Type*, 12 papers), the level of creators' education (*Education*, nine papers), and creators' race (*Race*, seven papers). Most studies investigating the effect of *Race* explore whether being Caucasian can influence crowdfunding performance. The culture, language, patent ownership, sexual orientation, credibility, and the picture/logo of creators can also affect their fundraising outcomes. In addition, creators' *Preparedness*, *Passion*, *Innovativeness*, and *User Entrepreneurship* toward the project or product also determine crowdfunding success. Researchers rarely investigate *Entrepreneur Aspect*, *Brand Prominence*, *Firm Age*, *Prior Funding*, and *Diversification* related to the entrepreneur or the firm that creates the projects. Most of these factors are measured using different methods, and the findings regarding their relationships with crowdfunding success are inconsistent across studies. In contrast, some of these factors have only been examined by a few researchers. In particular, models include some of these factors (i.e., *Culture, Geography, Race, Language, Creator Type,* and *Gender*) as control variables rather than as independent variables. Furthermore, some studies investigating the main effects of these factors tend to conduct group tests or use different measurements in one model.

Backer-related factors

Backer-related factors are those associated with the people who back the projects, including *Funder's Positive Affective Reactions*, *Motive,* a backer's previous backing experience (*Experience*), a backer's tenure on the platform (*Platform Tenure*), and geography (*Geography*). Among the 94 studies, only 6 investigate these factors.

Platform-related factors

Platform-related factors investigated in the selected articles include the number of projects being funded on the platform (*Competition*), the type of platform (*Platform Type*), and the number of years since the platform's establishment (*Platform Age*). Seven papers explore the effect of platform type on crowdfunding success. Different crowdfunding platforms have additional requirements for crowdfunding projects (e.g., the standard practice of retaining funds received from the crowd at the end of a project, i.e., "All-or-Nothing" or "Keep-it-All"), which to some extent also affect the projects' success (Cumming et al. 2015; Giudici et al. 2018; Zhou et al. 2018). Thus, the selected studies examine the type of platform (i.e., "All-or-Nothing" or "Keep-it-All") and use a set of platform dummies to explore crowdfunding success. For example, Josefy et al. (2017) collect data from two platforms (i.e., Kickstarter and GoFundMe) and investigate the influence of platform types on crowdfunding success. They find that projects created on Kickstarter are more likely to succeed than those started on GoFundMe. Bengtson (2019) and Ralcheva and Roosenboom (2019) conduct group tests on different platforms to examine the effect of the platform model on crowdfunding success.

Effects of the determinants on crowdfunding success based on different measurements of crowdfunding success

Different measurements of crowdfunding success may lead to different findings regarding the effects of its determinants. We consider each measurement of success separately to identify how these factors influence project fundraising performance. We also subdivide some determinants based on the reviewed papers and investigate whether different definitions of a determinant can induce different effects on crowdfunding success. Specifically, we collate and classify the empirical results (i.e., positive, negative, or nonsignificant effects) of each determinant of crowdfunding success for each paper. We mainly focus on *Funding Success*, *Funds Raised*, *Success Ratio*, and *Number of Backers*, which are widely used in the selected papers. Some studies yield inconsistent findings regarding the relationship between the same determinant and crowdfunding success (see Table 7). In particular, using different measurements within the same study for determinants or crowdfunding success can yield different results for the same determinant.

Funding success as the measurement of crowdfunding success

As outlined in the previous section, more than half of the selected studies use *Funding Success* as a proxy for crowdfunding success; thus, the list of determinants involved in these studies is comprehensive and diverse. As shown in Table 7, the studies focusing on *Funding Success* examine the effects of the project-, creator-, and platform-related

factors, while only one investigates the influence of backers. *Preparedness*, *Passion*, *User Entrepreneurship*, and *Language* are only examined in studies using *Funding Success* to measure crowdfunding success.

First, the factors examined in only one paper include *Need Similarity* (positive), *Use of Funds Raised* (mixed-effects), *Expected Outcome* (positive), *Media Coverage* (positive), *FAQs* (positive), *Preparedness* (positive), *Passion* (nonsignificant), *Sexual Orientation* (negative), *User Entrepreneurship* (positive), *Culture* (positive), *Picture/logo* (nonsignificant), *Entrepreneur Aspect* (mixed-effects), *Self-funding* (positive), *Diversification* (negative), backers' *Experience* (mixed-effects), and *Platform Age* (mixed-effects). The factors investigated by more than one paper but yielding consistent results include *Early Funds* (positive, two papers), *Pledge Level* (positive, three papers), *Share* (positive, eight papers), *Recommend* (positive, four papers), *Likes* (positive, two papers), *Followers* (positive, two papers), *Patent Ownership* (nonsignificant, four papers), and *Credibility* (positive, two papers). Thirty-seven papers examine the impact of *Category* on crowdfunding success, with 11 papers investigating its main effect and 28 papers considering it a control variable. We do not compile the empirical impact of *Category,* as each paper has a different research orientation. For example, Hörisch (2015) explores the difference between environmentally oriented projects and projects focusing on other aspects and finds that environmentally oriented projects are more likely to succeed.

Second, we focus on the different definitions of the determinants that have conflicting effects on crowdfunding success. Commonly used reward-related proxy variables (*Reward*) include reward quality, number of reward levels, reward type, reward quantity, and reward availability. The number of reward levels and reward availability both yield consistent results that projects providing more reward levels are more likely to succeed (seven papers), while whether the project offers a reward is found to have no relationship with crowdfunding success (two papers). Hobbs et al. (2016) use two methods to investigate the impact of *Reward* and find that reward quality positively affects crowdfunding success, while reward quantity has a negative effect. Butticè et al. (2017) use a set of reward dummies to test the effect of reward type on the success of crowdfunding projects and find that community-belonging rewards do not influence crowdfunding success, while rewards trigger backers' motivation and offer customized products can attract individuals' funds. For text-related factors (*Text*), word count is the most commonly studied factor (18 papers), more than 70% of which have a positive effect. In addition, studies testing the effects of text readability, text sentiment, spelling errors, linguistic styles, and specific terms have also yielded inconsistent results. For example, Younkin and Kuppuswamy (2018) find that positive words have a positive effect and negative words harm crowdfunding success, while Allison et al. (2017) find no significant relationship between positive words and crowdfunding success. Visual-related factors also have inconsistent results, although most studies find that video availability, the most commonly used proxy variable, has a positive effect (16 papers). Based on the impact distribution of various definitions, *Visual* and *Comments* positively impact the success of crowdfunding. For example, Courtney et al. (2017) and Wang et al. (2018) find that comment quantity and comment sentiment both positively affect the success of crowdfunding. The effect of creators' experience-related factors (*Experience*) is more contradictory: 18 studies find that it has a positive effect, 16 papers do not verify its significant impact,

Table 7 Effects of the determinants on crowdfunding success: based on different measurements of crowdfunding success

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Project-related factors associated with crowdfunding success: project characteristics										
Goal		Positive	[26, 48, 56, 65]	4	[2–6, 10, 19, 41, 53, 61, 91]	11	[10, 28]	2	[2, 6, 9, 10, 19, 41, 50, 53, 73, 77–79]	12
		Negative	[4–6, 10, 11, 15, 16, 18, 20, 21, 23, 27, 29, 32, 34, 37, 39, 46, 51, 53–60, 62, 63, 66, 70, 72, 76, 79, 82, 83, 85, 87, 88, 90, 93, 94]	42	[4, 30, 51, 56, 64]	5	[6, 13, 16, 33, 42, 59, 61, 68, 71, 74, 78, 81, 94]	13	[10, 59]	2
		Non-significant	[2, 3, 19, 45, 72, 73, 77, 90]	8	[9, 25, 40, 45, 49, 54, 56, 59, 76]	9	[36]	1	[17, 25, 40, 76]	4
Early funds		Positive	[18, 21]	2					[50]	1
		Negative			[49]	1				
Early backers		Positive	[21]	1					[17, 50]	2
		Non-significant	[18]	1						
Total backers		Positive	[3, 60, 94]	3	[3, 61]	2	[13, 43, 61, 78, 89, 94]	6		
		Negative	[34]	1						
		Non-significant			[60, 61]	2	[61]	1		
Pledge/backer ratio		Positive					[78]	1		
Duration		Positive	[39, 48, 56, 57, 65, 94]	6	[14, 31, 56, 59]	4	[28, 59, 81, 94]	4	[31, 59]	2
		Negative	[2, 4–6, 10, 11, 15, 18, 20, 23, 27, 29, 34, 53, 54, 60, 66, 70, 76, 87, 88, 92, 93]	23	[4–6, 10, 30, 41, 60, 75, 76]	9	[6, 10, 13, 28, 33, 43, 68]	7	[6, 9, 10, 40, 41, 43, 75, 76]	8
		Non-significant	[16, 21, 32, 46, 51, 59, 79, 82, 83]	9	[2, 9, 51, 53, 54]	5	[16, 36, 74]	3	[2, 17, 53, 79]	4

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Reward	Reward quality	Positive	[34]	1						
	Reward levels	Positive	[20, 29, 51, 62, 63, 88, 93]	7			[81]	1		
		Negative					[13, 36, 89]	3		
		Non-significant			[51]	1	[33]	1		
	Rewards type	Positive	[23]	1	[31]	1			[31]	1
		Non-significant	[23]	1	[31, 91]	2				
	Reward quantity	Positive	[16, 70]	2	[2, 4, 41]	3	[16]	1	[2, 41, 79]	3
		Negative	[34]	1						
		Non-significant	[2, 4, 5, 16]	4	[5]	1	[42]	1		
	Rewards availability	Non-significant	[55, 57]	2						
Team size		Positive	[12, 39, 46, 55, 65, 72, 77, 80, 85, 88, 90]	11	[25, 49, 80, 91]	4	[78]	1	[77]	1
		Non-significant	[56, 90]	2	[25, 56]	2	[44, 71]	2	[17, 78]	1
Launch date related	The time (expressed in days) elapsed since previous project;	Positive	[23]	1						
	Days left in the funding period	Positive	[79]	1						
		Negative							[79]	1
	Launched in weekend	Negative	[37]	1						
	Time to product delivery	Non-significant	[56]	1	[56]	1				
	a continuous numeric value measuring campaign recency	Positive							[43]	1
		Non-significant					[43]	1		
Need similarity		Positive	[46]	1						

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Innovativeness	Product innovativeness	Positive	[46, 76]	2	[76]	1			[76]	1
		Non-significant	[26, 56]	2	[56]	1				
Pledge level		Positive	[6, 10, 62]	3	[6, 10]	2	[6, 10, 13, 43]	4	[6, 10, 43]	3
Risk level		Negative			[75]	1			[75]	1
		Non-significant			[75]	1			[75]	1
Use of funds raised	RandD	Non-significant	[80]	1	[80]	1				
	Working capital	Positive	[80]	1						
		Non-significant			[80]	1				
	Marketing and market expansion	Positive			[80]	1				
		Non-significant	[80]	1						
Equity offered		Positive			[3]	1				
		Negative	[72, 77]	2					[77]	1
		Non-significant	[3, 73, 80]	3	[80]	1			[73]	1
Expected outcome	Sales growth	Positive	[80]	1	[80]	1				
	Margin	Positive	[80]	1	[80]	1				
	Total return	Positive			[75]	1			[75]	1
Category	Independent variables: dummy variables		[1, 37, 39, 45, 57, 66, 70, 73, 76, 77, 90]	11	[41, 75, 76]	3	[36, 43, 78, 89]	4	[41, 43, 73, 75–78]	7
	Control variables: a set of industry category dummies		[3–6, 10, 15, 18, 20, 21, 23, 29, 48, 53–55, 58–60, 62, 63, 66, 70, 72, 82, 83, 85, 87, 88]	28	[3–6, 10, 31, 49, 53, 54, 59, 60, 91]	12	[6, 10, 13, 59, 62, 68, 74, 81]	8	[6, 8, 10, 31, 50, 53, 59]	7

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Project-related factors associated with crowdfunding success: soft information										
Text	Readability	Negative	[29]	1	[59, 91]	2	[59]	1	[59]	1
		Non-significant	[45, 59, 88]	3						
	Sentiment	Positive	[15, 29, 59, 63]	4	[59, 91]	2	[59]	1	[43, 59]	2
		Negative	[32, 63]	2						
		Non-significant	[45, 55]	2			[43]	1		
	Text quality						[44]	1		
	Word count	Positive	[4, 5, 10, 15, 16, 20, 29, 37, 39, 59, 63, 82, 83, 88]	14	[4, 5, 10, 54, 59, 91]	6	[10, 16, 28, 42, 59, 81]	6	[10, 40, 43, 59]	4
		Negative	[10]	1	[10, 60]	2	[10, 43]	2	[10]	1
		Non-significant	[5, 10, 16, 45, 54, 60, 87]	7			[16, 33, 36, 44, 74]	5	[10]	1
	Spelling errors	Positive	[48]	1						
		Negative	[20]	1	[41]	1			[41]	
	Linguistic styles (e.g., concrete language, precise language, interactive style, uncertainty, results in progress, ongoing journey)	Positive	[6, 32, 53]	3	[6, 53]	2	[6, 42, 43, 74]	4	[6, 53, 79]	3
		Negative	[6, 32, 59]	3	[6, 59]	2	[6, 59]	2	[6, 59]	2
		Non-significant	[6, 32, 79]	3					[43]	1
	Specific terms (e.g., risk, money-related, specific topics, community-oriented)	Positive	[66]	1			[13, 33]	2		
		Negative			[41]	1			[41]	1
		Non-significant	[66]	1			[13]	1		

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Visual	Video quality	Positive	[34, 56, 63]	3	[56]	1				
		Non-significant					[44]	1		
	Video count	Positive	[29, 66, 87]	3	[91]	1	[43, 78]	2	[40, 43]	2
		Non-significant	[32, 66, 94]	3			[33, 94]	2	[78]	1
	Video availability	Positive	[4, 5, 10, 11, 15, 19, 48, 53, 54, 57, 59, 82, 83, 85, 88, 90]	16	[4, 5, 10, 19, 53, 54, 59, 91]	8	[10, 59, 81]	3	[10, 19, 53, 59]	4
		Negative	[39]	1						
		Non-significant	[12, 90]	2			[42, 71, 74]	3		
	Video length	Non-significant					[36, 44]	2		
	Image quality	Non-significant					[36]	1		
	Image valence	Non-significant					[36]	1		
	Image count	Positive	[4, 5, 15, 16, 29, 82, 87]	7	[4, 5, 91]	3	[16, 33, 42, 43, 81]	5	[43]	1
		Negative	[11, 92]	2						
		Non-significant	[32, 85]	2						
	Image availability	Positive			[76]	1				
		Negative	[76]	1						
		Non-significant			[76]	1	[74]	1	[76]	1
	Visual count	Positive	[23, 53, 88]	3	[53]	1			[53]	1
		Non-significant	[21]	1						
	Visual availability	Positive	[20]	1	[61]	1				
		Non-significant	[2]	1	[2]	1	[61]	1	[2]	1
Social network		Positive	[18, 20, 23, 38, 39, 54, 62, 80, 87, 93]	10	[9, 38, 41, 51, 54, 80]	6	[38, 42, 44, 78]	4	[9, 40, 41, 50]	4
		Negative	[34, 76, 88]	3	[76]	1			[76]	1
		Non-significant	[2, 21, 23, 51, 85, 92]	6	[2, 91]	2	[78]	1	[2, 78]	2

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Updates		Positive	[2, 5, 6, 10, 20, 32, 34, 39, 48, 60, 62, 66, 70, 82, 83, 85, 92, 93]	18	[5, 6, 10, 60, 61, 91]	6	[6, 10, 33, 42, 43, 61, 81, 89]	8	[6, 10, 43, 50]	4
		Negative							[8]	1
		Non-significant	[5, 11, 94]	3	[2, 14, 61]	3	[61, 74, 94]	3	[2]	1
Comment	Comment quantity	Positive	[6, 10, 11, 20, 32, 62, 66, 83, 93]	9	[6, 10, 14, 61, 91]	5	[6, 10, 13, 33, 42, 44, 61, 62, 81, 89]	10	[6, 10, 40, 43]	4
		Negative					[43]	1		
		Non-significant	[94]	1	[61]	1	[61, 74, 94]	3		
	Has comment = 1, 0 otherwise	Positive	[39]	1						
	Number of previous created projects' comment	Positive	[23]	1						
	Number of previous backed projects' comment	Positive	[23]	1						
	Comment length	Non-significant	[11]	1						
	Comment sentiment	Positive	[11, 20]	2			[13]	1		
		Negative					[13]	1		
	Comment reply ratio	Non-significant	[11]	1						
	Comment reply length	Positive	[11]	1						
	Comment reply speed	Positive	[11]	1						
Staff_pick		Positive	[18, 23, 32, 37, 53, 54]	6	[53, 54]	2	[33, 81]	2	[53]	1
		Negative			[51]	1				
		Non-significant	[23, 51]	2						
Shares		Positive	[2, 16, 18, 20, 34, 39, 55, 62]	8	[2, 14]	2	[16, 62]	2	[2]	1

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Recommend		Positive	[48, 62, 66, 87]	4			[43]	1	[43]	1
		Non-significant					[69]	1		
Likes	"like" count	Positive	[62]	1	[5]	1	[62]	1	[40]	1
	A dummy	Positive	[5]	1						
	Fake Facebook likes	Negative							[8]	1
Media coverage		Positive	[46]	1			[44]	1		
Signals		Positive					[69]	1		
		Negative					[69]	1		
		Non-significant					[69]	1		
Followers		Positive	[5, 6]	2	[5, 6]	2				
		Negative					[6]	1		
		Non-significant							[6]	1
FAQs	Number of frequently asked questions	Positive					[42]	1	[43]	1
		Negative					[43]	1		
	Has written comments to answer questions = 1, 0 otherwise	Positive	[5]	1						
	The intensity of comments to answer questions	Positive			[5]	1				
Creator-related factors associated with crowdfunding success										
Preparedness		Positive	[46]	1						
Passion		Non-significant	[46]	1						

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Sexual orientation	A dummy variable	Negative	[53]	1						
		Non-significant			[53]	1			[53]	1
User entrepreneurship		Positive	[46]	1						
Experience	Number of previous projects created	Positive	[11, 15, 60]	3	[41, 60, 61]	3	[13, 42, 61, 74, 81]	5	[41, 53, 79]	3
		Negative	[66]	1	[31]	1	[43]	1	[31, 43]	2
		Non-significant	[18, 53, 54, 66, 79, 82, 84]	7	[53, 54, 61]	3				
	Number of previously successful projects created	Positive	[20, 45, 65, 70]	4			[68]	1		
		Non-significant	[23]	1						
	Number of previous unsuccessful projects created	Negative	[23]	1						
	Number of previous projects backed	Positive	[11, 56, 62, 82]	4	[5, 31, 56]	3	[13, 28, 61, 68, 81, 89]	6	[31]	1
		Negative	[66]	1	[2]	1				
		Non-significant	[2, 66, 70]	3	[61]	1	[61]	1	[2]	1
	Number of previously successful projects backed	Positive	[15]	1						
	Ratio of previously successful projects backed	Positive	[29]	1						
	Have the backing experience = 1, 0 otherwise	Positive	[5]	1						
	Number of previous projects created and backed	Positive	[29]	1						

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
	Have the same funding experience = 1, 0 otherwise	Positive	[27, 55, 59, 72]	4	[59]	1	[59]	1	[59]	1
		Negative			[41]	1			[41]	1
		Non-significant	[46]	1						
	Prior crowdfunding success = 1, 0 otherwise	Non-significant	[46, 77]	2					[77]	1
	Entrepreneurial experience	Positive	[3, 53, 72]	3	[3, 53]	2			[53]	1
		Non-significant	[12, 54, 73, 80]	4	[54, 80]	2	[44]	1	[73]	1
	Work experience/skills	Positive	[3]	1	[3]	1				
		Non-significant	[56, 77]	2	[56]	1			[77]	1
Education		Positive	[3, 73]	2	[3]	1			[73]	1
		Negative	[55]	1						
		Non-significant	[54, 56, 80]	3	[49, 54, 56, 80]	4	[44]	1		
Patent ownership		Positive					[44]	1		
		Non-significant	[12, 58, 72, 73]	4	[25]	1			[17, 25, 73]	3
Facebook friends		Positive	[15, 18, 20, 23, 29, 48, 53, 54, 62, 63, 65, 87]	12	[14, 54]	2	[28, 81]	2	[53]	1
		Negative	[34, 65]	2						
		Non-significant	[45, 51, 62, 82]	4	[51, 53]	2				
Culture	Cultural difference	Positive	[19]	1	[19]	1			[19]	1

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Geography	Geographic distance	Non-significant	[48, 84]	2						
	US = 1, 0 otherwise	Positive	[6, 18, 21]	3					[6]	1
		Negative	[60]	1	[6, 60]	2	[6]	1	[79]	1
		Non-significant	[23, 45, 79, 94]	4			[78, 94]	2	[78]	1
	France = 1, 0 otherwise	Non-significant	[38]	1			[38]	1		
	London = 1, 0 otherwise	Non-significant	[3]	1	[3]	1				
	Europe = 1, 0 otherwise	Non-significant	[79, 94]	2			[94]	1	[79]	1
	Same state = 1, 0 otherwise	Positive			[64]	1				
	Developed countries = 1, 0 otherwise	Non-significant	[2]	1	[2]	1			[2]	1
	A categorical variable	Positive			[31, 51]	2			[31]	1
		Negative			[51]	1				
		Non-significant	[51, 59]	2	[31, 59]	2	[59, 74]	2	[31, 59]	2
	Group test		[16]	1	[61]	1	[16, 28, 61]	3		
Race	Caucasian = 1, 0 otherwise	Positive	[53, 54]	2	[53, 54]	2			[53]	1
		Non-significant	[46]	1			[44]	1		
	Black = 1, 0 otherwise	Negative	[63]	1						
	Belong to an ethnic minority = 1	Positive	[56]	1	[56]	1				
Language	Italian = 1, 0 otherwise	Negative	[39]	1						
	German = 1, 0 otherwise	Non-significant	[85]	1						

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Creator type	Company/group = 1, 0 otherwise	Positive	[26, 55, 85]	3	[19, 41, 60]	3	[71]	1	[41]	1
		Non-significant	[2, 12, 19, 60]	4	[2]	1			[2, 19]	2
	Individual = 1, 0 otherwise	Negative	[3, 12, 60, 66]	4	[3, 60]	2				
Gender	Male = 1, 0 otherwise	Negative	[21, 46, 54, 55, 59, 76]	6	[54, 59, 76]	3	[59]	1	[59, 76]	2
		Non-significant	[27, 38]	2			[38, 44, 78]	3	[78]	1
	Female = 1, 0 otherwise	Positive	[19, 26, 51, 53, 56, 60, 63]	7	[19, 38, 51, 60]	4	[71]	1	[19, 53]	2
		Non-significant	[2, 21]	2	[2, 53, 56]	3			[2]	1
	Gender homophily	Positive	[84]	1						
Credibility		Positive	[2, 59]	2	[2, 59]	2	[59]	1	[2, 59]	2
Picture/logo		Positive							[2]	1
		Non-significant	[2]	1	[2]	1				
Entrepreneur aspect		Positive	[10]	1	[10]	1	[10]	1	[10]	1
		Negative	[10]	1	[10]	1	[10]	1	[10]	1
		Non-significant	[10]	1	[10]	1	[10]	1	[10]	1
Brand prominence		Positive					[42]	1		
Self-funding	A certain campaign received funding from the fundraiser behind it = 1, 0 otherwise	Positive	[4]	1	[4]	1				
	The average amount of self-funding in each campaign	Positive	[4]	1	[4]	1				

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Firm age	A categorical variable	Negative	[80]	1	[80]	1				
	Firm age in days	Negative	[72]	1						
		Non-significant	[72, 73]	2					[73]	1
	Start-up = 1	Positive	[3]	1						
		Negative			[3]	1				
		Non-significant	[3]	1						
Prior funding		Positive	[72, 73]	2	[3]	1			[73]	1
		Negative	[3]	1						
		Non-significant							[73]	1
Diversification		Negative	[3]	1						
		Non-significant			[3]	1				
Backer-related factors associated with crowdfunding success										
Motive		Positive			[91]	1				
Experience	Ratio of previously successful projects backed	Positive			[49]	1				
	Entrepreneurial experience	Positive			[49]	1				
	Sum of previous investments	Positive	[66]	1						
		Negative	[66]	1						
Geography		Positive					[33]	1		
Platform-related factors associated with crowdfunding success										
Competition		Positive			[41]	1			[41]	1
		Non-significant					[71]	1		

Table 7 (continued)

Determinant	Subdivided definition	Effect	Funding success		Funds raised		Success ratio		Number of backers	
			Studies	#	Studies	#	Studies	#	Studies	#
Platform type	Keep-it-all = 1, 0 otherwise	Negative	[88]	1						
	All-or-nothing = 1, 0 otherwise	Non-significant	[94]	1			[94]	1		
	GoFundMe vs. Kickstarter	Negative	[19]	1					[19]	1
		Non-significant			[19]	1				
	Kickstarter versus Crowdcube versus Kiva	Non-significant	[90]	1						
	Seedrs versus Crowdcube	Positive	[77]	1						
		Non-significant	[72]	1					[77]	1
	Group test		[72, 90]	2						
	Keep-it-all or All-or-nothing control						[13]	1		
Platform age		Positive	[16]	1						
		Negative					[16]	1		
		Non-significant	[16]	1			[16]	1		

and only two papers find that it has a negative effect. However, Zhou et al. (2018) use two different approaches to measure creators' *Experience* and obtain consistent results that the ratio of previous successful backed projects and the number of previously created and backed projects both positively affect the success of crowdfunding. Some categorical variables (i.e., *Launch Date Related*, *Geography*, *Race*, *Language*, *Creator Type*, *Gender*, *Firm Age*, and *Platform Type*) yield inconsistent results due to different categorical methods, while some have a clear impact. For example, Caucasian and female creators are more likely to attract crowdfunding. In contrast, black and male creators are less likely to succeed in crowdfunding, and individual creators are less likely to succeed than their company or group peers. The *Platform Type*, namely, the rule of "Keep-it-all" or "All-or-nothing" seems to have no effect on crowdfunding success.

Third, the rest of the determinants are factors on which the results yielded inconsistency by different studies, even with the same definition criteria. However, we conclude that, in general, some determinants have a consistent effect on crowdfunding success. For example, most studies find that *Goal* and *Duration* negatively influence crowdfunding success. Fifty-one papers explore the impact of *Goal*, among which 42 find a negative relationship between *Goal* and crowdfunding success. Twenty-three out of the 38 papers investigating *Duration* have a negative effect. In addition, previous studies have found that *Total Backers* (3 papers), *Team Size* (11 papers), *Social Network* (10 papers), *Updates* (18 papers), *Staff_pick* (6 papers), and *Facebook Friends* (12 papers) commonly have a positive impact on crowdfunding success.

Funds raised as the measurement of crowdfunding success

Studies using *Funds Raised* to measure crowdfunding success consider all four types of determinants (see Table 7). Backers' motive (*Motive*) and the competition level on the platform (*Competition*) are only explored by studies using *Funds Raised* as the measurement. We first focus on the determinants examined in only one paper. *Likes*, *FAQs*, *Culture*, *Prior Funding*, backers' motive (*Motive*) and experience (*Experience*), and *Competition* impact the number of funds raised positively. *Early Funds* can negatively affect the total funds raised. At the same time, *Launch Date Related*, *Sexual Orientation*, *Patent Ownership*, *Picture/logo*, *Diversification*, and *Platform Type* have no significant effect on attracting funds. *Risk Level, Use of Funds Raised*, and *Entrepreneur Aspect* have mixed effects. Interestingly, different measurements of crowdfunding success can affect empirical results, even in the same paper. For example, *Sexual Orientation* studied by Anglin et al. (2018b) and *Platform Type* studied by Josefy et al. (2017) both yield different findings compared with the studies taking *Funding Success* as the measurement of crowdfunding success. In addition, studies related to *Pledge Level*, *Shares*, *Followers*, *Race*, and *Credibility* consistently yield results that these factors can positively affect the funds raised, which is roughly consistent with the results of *Funding Success* as the measurement.

Again, *Reward*, *Text*, *Visual*, creators' *Experience*, and *Geography* are the factors for which different definitions are used. The visual-related factors suggest that they can attract more funds to the projects. Most of the studies focus on video availability, similar to those using *Funding Success* as the measurement. *Reward* is found to have no relationship with crowdfunding success in the five papers. However, Boeuf et al. (2014) find

that reward type can influence outcomes. That is, public acknowledgment rewards are more likely to receive backers' support than other types of rewards. At the same time, Zhao and Vinig (2019) and Chan et al. (2021) find a positive effect of reward quantity. Text sentiment and word count could positively affect crowdfunding success, while text readability, spelling errors, and specific terms negatively correlate with success. Therefore, we conclude that when *Funds Raised* is used as the measurement, *Visual* and *Text* tend to positively affect the outcome of crowdfunding success (which is consistent with the findings based on *Funding Success*), and *Reward* is found to have a mixed effect. In addition, the creators' *Experience* and *Geography* reflect conflicting results. Boeuf et al. (2014) document that the number of previously created projects has a negative effect, while the number of previously backed projects has a positive impact, unlike studies focusing on *Funding Success*. Similar to the findings based on *Funding Success*, studies examining *Geography* yield inconsistent results due to different definitions. Nevertheless, male creators are less likely to succeed in crowdfunding than female peers.

Consistent with the results based on *Funding Success*, factors such as *Team Size*, *Social Network*, *Updates*, and *Comment* positively relate to crowdfunding success. Most of the studies investigating *Goal* and *Duration* are found to have a positive or nonsignificant effect on the number of funds raised, inconsistent with the results based on *Funding Success*.

In summary, some factors yield inconsistent results between the studies based on *Funding Success* and those based on *Funds Raised*, indicating that the measurement of crowdfunding success is a critical contextual factor for the different research results. For example, *Goal* and *Duration* are the most common factors investigated in the literature on crowdfunding success. Studies based on *Funding Success* tend to have a negative effect, while those based on *Funds Raised* tend to find a positive or nonsignificant impact.

Other measurements of crowdfunding success

As shown in Table 7, for the studies based on the measurements of *Success Ratio* and *Number of Backers*, we find that most of the determinants have mixed effects or are examined by only a few researchers. However, we can still conclude several rules from these studies for some widely studied determinants. *Pledge Level*, *Social Network*, *Updates*, *Comment*, *Staff_pick*, *Shares*, *Likes*, *Facebook Friends*, and *Credibility* tend to have a positive effect, consistent with the findings of *Funding Success* and *Funds Raised*. The studies examining *Goal* on *Success Ratio* find the same negative effect on *Funding Success.* In contrast, those on *Number of Backers* find a positive effect inconsistent with those for the other measurements of crowdfunding success. For *Duration*, unlike the studies using *Funding Success* that find a negative effect, mixed-effects are found in studies using the *Success Ratio* and *Number of Backers*, which is consistent with the findings from the studies using *Funds Raised.* Different definitions of some determinants (i.e., *Reward*, *Text*, *Visual*, and creators' *Experience*) have conflicting effects on crowdfunding success, inducing difficulty in identifying consistent rules for them. Taking the factor, *Text*, as an example, Cappa et al. (2021) document the role of narrative styles (i.e., "Results in progress" and "Ongoing journey") in explaining the success ratio of crowdfunding and finding a positive relationship between them. Duan et al. (2020) explore the

effect of narrative styles in terms of readability, length, tone, and uncertainty on *Success Ratio* and *Number of Backers*, and demonstrate a positive effect of length and tone, whereas readability and uncertainty have a negative effect.

Studies using *Time to Funding*, *Decision to Invest*, *Pledge/Backer Ratio*, and *Overfunding* as the measurement of crowdfunding success account for a minority. Except for *Time to Funding*, which is negatively related to crowdfunding success, all measurements refer to success. Most of the determinants in these studies are examined by only one paper, while the others are found to have mixed effects. However, we analyze the empirical results for the effects of these factors on crowdfunding success. It is challenging to conclude consistent rules from these studies. Most of them yield inconsistent results for the same factors under different or even the exact measurements of crowdfunding success. For example, Chan and Parhankangas (2017) and Davis et al. (2017) both find that *Goal* positively affect *Pledge/Backer Ratio* and *Decision to Invest*, respectively. However, one study find that *Goal* can negatively affect *Overfunding*, while the other finds that *Goal* does not influence *Overfunding*. Moreover, three papers document a positive relationship between *Goal* and *Time to Funding*, while two papers demonstrate a negative and nonsignificant effect of *Goal* on *Time to Funding*, respectively. These studies find no evidence for exactly how *Goal* affects crowdfunding success, as the results are inconsistent. However, in the above section, we conclude that *Goal* tends to negatively affect *Funding Success* and *Success Ratio* but is less likely to positively affect *Funds Raised* and *Number of Backers*.

The findings from studies with multiple measurements of crowdfunding success

Among the 31 papers mentioned in "Use of research methods" section and Appendix 3, except for the studies by Ahlers et al. (2015), Cordova et al. (2015), Kromidha and Robson (2016), Jin et al. (2020), Chan et al. (2021) and Borrero-Domínguez et al. (2020), in which consistent results across different measurements of crowdfunding success are obtained, the others all yield inconsistent findings. For example, Anglin et al. (2018a) use *Funding Success* and *Funds Raised* as proxies for crowdfunding success and find that *Goal, Duration*, and *Text* have different relationships with *Funding Success* and *Funds Raised.* More specifically, *Goal* and *Duration* can negatively affect *Funding Success* but have no relationship with *Funds Raised.* In contrast, word count positively affects *Funds Raised* but does not affect *Funding Success*. Therefore, we conclude that different measurements of crowdfunding success can lead to different findings regarding the impact of a determinant.

Effects of the determinants on crowdfunding success based on different crowdfunding models

As mentioned in "Platforms involved" section and the involved platforms shown in Table 5, the studies exploring loan-based (eight papers) and donation-based (two papers) crowdfunding models account for a minority. It is challenging to conclude consistent rules. Therefore, in this section, we mainly focus on research using reward- and equity-based samples to review the effects of the determinants on crowdfunding success, respectively (see Table 8). As shown in Table 8, the determinants studied using reward- or equity-based samples exhibit a large difference. Except for the determinants

that are commonly studied with both samples, for example, *Goal*, *Early Funds*, *Early Backers*, *Total Backers*, *Duration*, *Team Size*, *Category* (i.e., project characteristics); creators' *Experience*, *Education*, *Patent Ownership*, and *Creator Type* (i.e., creator-related factors); backers' *Experience* (i.e., backer-related factors); and *Platform Type* (i.e., platform-related factors), other determinants are only investigated with reward- or equity-based samples.

First, different effects are still found for the determinants studied by both samples. *Goal* is concluded to have a negative effect in reward-based studies, while an approximately nonsignificant effect is found in equity-based studies. Creators' *Experience* is commonly found to positively affect the success of crowdfunding projects in reward-based studies, while in equity-based studies, a mixed effect is found. *Education* has no significant effect in reward-based studies, while a mixed effect is found in equity-based studies.

Second, we focus on the determinants that have only been explored in equity-based studies. We find that *Use of Funds Raised*, *Equity Offered*, and *Expected Outcome* related to a project, and *Firm Age*, *Prior Funding*, and *Diversification* related to the fundraising firm have mixed effects on crowdfunding success. Only three studies examine the effects of the determinants related to soft information about fundraising projects. Specifically, Mamonov and Malaga (2018) find no significant effect of video availability on crowdfunding success, while Lukkarinen et al. (2016) and Nitani et al. (2019) confirm the positive effect of *Social Network* on the success of crowdfunding projects. Except for these determinants, the other determinants identified in "Definitions and measurements of determinants of crowdfunding success" section, as displayed in Table 6, are ignored in equity-based studies.

Third, except for the determinants examined only in equity-based studies, all the other determinants displayed in Table 6 are investigated in reward-based studies. The significance and direction of the determinants' effects on crowdfunding success in these studies are roughly similar to those shown in "Definitions and measurements of determinants of crowdfunding success" section and Table 6.

In summary, we conclude that most of the research among the 94 selected papers focuses on exploring the effects of the determinants on the success of reward-based crowdfunding projects. The determinants considered in reward- and equity-based studies are roughly different, and even those determinants considered in both crowdfunding models are found to have different effects. Different crowdfunding models of projects can lead to additional findings regarding the impact of a determinant on crowdfunding success.

An integrated framework for the determinants of crowdfunding success

According to our review of its determinants, Fig. 3 depicts an integrated framework that reflects current and future research on crowdfunding success. On the one hand, the integrated framework comprises the platform and crowdfunding models, the classification of determinants, the main measurements of crowdfunding success, the research methods, and the gaps in need of future attention. On the other hand, it shows how different determinants affect crowdfunding success and how the measurement of crowdfunding success determines the research methods.

Table 8 Effects of the determinants on crowdfunding success: based on different crowdfunding models

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Project-related factors associated with crowdfunding success: project characteristics										
Goal		Positive	[2, 4–6, 10, 19, 22, 28, 41, 48, 50, 52, 53, 56, 60, 61, 78, 79, 91]	19	[3, 9, 73, 77]	4	[24, 26, 47, 65]	4	[19]	1
		Negative	[4–7, 10, 11, 13, 15, 16, 18, 20, 21, 23, 29, 30, 32–35, 37, 39, 42, 46, 51, 53–57, 59–63, 66, 68, 70, 71, 74, 76, 78, 79, 81–83, 85, 88, 93, 94]	49	[58, 72]	2	[27, 64]	2	[87]	1
		Non-significant	[2, 19, 36, 40, 45, 54, 56, 59, 90]	9	[3, 9, 17, 25, 49, 72, 73, 77, 90]	9	[90]	1	[19]	1
Early funds		Positive	[7, 18, 21, 50, 86]	5						
		Negative			[49]	1				
Early backers		Positive	[21, 50]	2	[17]	1				
		Non-significant	[18]	1						
Total backers		Positive	[13, 35, 43, 60, 61, 78, 89, 94]	8	[3]	1				
		Negative	[34]	1						
		Non-significant	[60, 61]	2						
Pledge/backer ratio		Positive	[78]	1						
Duration		Positive	[14, 28, 31, 39, 48, 56, 57, 59, 81, 94]	10			[65]	1		
		Negative	[2, 4–6, 10, 11, 13, 15, 18, 20, 23, 28–30, 33, 34, 40, 41, 43, 53, 54, 60, 66, 68, 70, 76, 88, 92, 93]	29	[9]	1	[27]	1	[87]	1
		Non-significant	[2, 16, 21, 22, 32, 35, 36, 46, 51, 53, 54, 59, 74, 79, 82, 83]	16	[9, 17]	2				

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Reward	Reward quality	Positive	[34]	1						
	Reward levels	Positive	[20, 29, 35, 51, 62, 63, 81, 88, 93]	9						
		Negative	[13, 36, 89]	3						
		Non-significant	[33, 51]	2						
	Rewards type	Positive	[23, 31]	2						
		Non-significant	[23, 31, 91]	3						
	Reward quantity	Positive	[2, 4, 16, 41, 70, 79]	6						
		Negative	[34]	1						
		Non-significant	[2, 4, 5, 16, 42]	5						
	Rewards availability	Non-significant	[55, 57]	2						
Team size		Positive	[39, 46, 55, 78, 85, 88, 90, 91]	8	[12, 25, 49, 72, 77, 80]	6	[65]	1		
		Non-significant	[44, 56, 71, 78]	4	[17, 25, 90]	3				
Launch date related	The time (expressed in days) elapsed since previous project	Positive	[23]	1						
	Days left in the funding period	Positive	[79]	1						
		Negative	[79]	1						
	Launched in weekend	Negative	[37]	1						
	Time to product delivery	Non-significant	[56]	1						
	a continuous numeric value measuring campaign recency	Positive	[43]	1						
		Non-significant	[43]	1						
Need similarity		Positive	[46]	1						
Innovativeness	Product innovativeness	Positive	[46, 52, 76]	3						
		Non-significant	[56]	1			[26]	1		
Pledge level		Positive	[6, 10, 13, 43, 62]	5						

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Use of funds raised	RandD	Non-significant			[80]	1				
	Working capital	Positive			[80]	1				
		Non-significant			[80]	1				
	Marketing and market expansion	Positive			[80]	1				
		Non-significant			[80]	1				
Equity offered		Positive			[3]	1				
		Negative			[72, 77, 80]	3				
		Non-significant			[3, 73, 80]	3				
Expected outcome	Sales growth	Positive			[80]	1				
		Non-significant			[80]	1				
	Margin	Positive			[80]	1				
Category	Independent variables: dummy variables		[1, 36, 37, 39, 41, 43, 45, 57, 66, 70, 76, 78, 89, 90]	14	[73, 77, 90]	3	[90]	1		
	Control variables: a set of industry category dummies		[4–8, 10, 13, 15, 18, 20–23, 29, 31, 48, 50, 53–55, 59, 60, 62, 63, 66, 68, 70, 74, 81–83, 85, 88, 91]	34	[3, 49, 58, 72]	4	[24, 26]	2	[87]	1

Project-related factors associated with crowdfunding success: soft information

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Text	Readability	Negative	[22, 29, 59, 91]	4						
		Non-significant	[45, 59, 88]	3						
	Sentiment	Positive	[15, 29, 43, 59, 63, 91]	6						
		Negative	[32, 63]	2						
		Non-significant	[43, 45, 55]	3						
	Text quality		[44]	1						
	Word count	Positive	[4, 5, 10, 15, 16, 20, 28, 29, 37, 39, 40, 42, 43, 54, 59, 60, 63, 81–83, 88, 91]	22						
		Negative	[10, 43, 52, 60]	4						
		Non-significant	[5, 7, 10, 16, 33, 36, 44, 45, 54, 60, 74]	11			[47]	1	[87]	1
	Spelling errors	Positive	[48]	1						
		Negative	[20, 41]	2						
	Linguistic styles (e.g., concrete language, precise language, interactive style, uncertainty, results in progress, ongoing journey)	Positive	[6, 32, 42, 43, 53, 74, 79]	7						
		Negative	[6, 32, 59]	3						
		Non-significant	[6, 32, 43, 79]	4			[24, 47, 67]	3		
	Specific terms (e.g., risk, money-related, specific topics, community-oriented)	Positive	[13, 33, 66]	3						
		Negative	[41]	1						
		Non-significant	[13, 66]	2						

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Visual	Video quality	Positive	[34, 56, 63]	3						
		Non-significant	[22, 44]	2						
	Video count	Positive	[29, 40, 43, 66, 78, 91]	6					[87]	1
		Non-significant	[32, 33, 66, 78, 94]	5						
	Video availability	Positive	[4, 5, 10, 11, 15, 19, 48, 53, 54, 57, 59, 81–83, 85, 88, 90, 91]	18					[19]	1
		Negative	[39]	1						
		Non-significant	[42, 71, 74]	3	[12]	1				
	Video length	Non-significant	[36, 44, 52]	3						
	Image quality	Non-significant	[36]	1						
	Image valence	Non-significant	[36]	1						
	Image count	Positive	[4, 5, 15, 16, 29, 33, 42, 43, 81, 82, 91]	11					[87]	1
		Negative	[11, 92]	2						
		Non-significant	[32, 85]	2						
	Image availability	Positive	[76]	1						
		Negative	[76]	1						
		Non-significant	[74, 76]	2						
	Visual count	Positive	[23, 53, 88]	3						
		Non-significant	[21]	1						
	Visual availability	Positive	[20, 61]	2						
		Non-significant	[2, 61]	2						
Social network		Positive	[18, 20, 23, 38–42, 44, 50, 51, 54, 62, 78, 93]	15	[9, 80]	2			[87]	1
		Negative	[34, 76, 88]	3						
		Non-significant	[2, 21, 23, 51, 78, 85, 91, 92]	8						

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Updates		Positive	[2, 5–7, 10, 20, 32–35, 39, 42, 43, 48, 50, 60–62, 66, 70, 81–83, 85, 89, 91–93]	28						
		Negative	[8, 60]	2						
		Non-significant	[2, 5, 11, 14, 22, 61, 74, 94]	8						
Comment	Comment quantity	Positive	[6, 7, 10, 11, 13, 14, 20, 32, 33, 35, 40, 42–44, 61, 62, 66, 81, 83, 89, 91, 93]	22						
		Negative	[43]	1						
		Non-significant	[22, 61, 74, 94]	4						
	Has comment = 1, 0 otherwise	Positive	[39]	1						
	Number of previous created projects' comment	Positive	[23]	1						
	Number of previous backed projects' comment	Positive	[23]	1						
	Comment length	Non-significant	[11]	1						
	Comment sentiment	Positive	[11, 13, 20]	3						
		Negative	[13]	1						
	Comment reply ratio	Non-significant	[11]	1						
	Comment reply length	Positive	[11]	1						
	Comment reply speed	Positive	[11]	1						
Staff_pick		Positive	[18, 23, 32, 33, 37, 53, 54, 81]	8						
		Negative	[51]	1						
		Non-significant	[23, 51]	2						
Shares		Positive	[2, 14, 16, 18, 20, 34, 39, 55, 62]	9						

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Recommend		Positive	[43, 48, 62, 66]	4					[87]	1
		Non-significant	[69]	1						
Likes	"like" count	Positive	[5, 40, 62]	3						
	A dummy	Positive	[5]	1						
	Fake Facebook likes	Negative	[8]	1						
Media coverage		Positive	[44, 46]	2						
Signals		Positive	[69]	1						
		Negative	[69]	1						
		Non-significant	[69]	1						
Followers		Positive	[5, 6]	2						
		Negative	[6]	1						
		Non-significant	[6]	1						
FAQs	Number of frequently asked questions	Positive	[42, 43]	2						
		Negative	[43]	1						
	Has written comments to answer questions = 1, 0 otherwise	Positive	[5]	1						
	The intensity of comments to answer questions	Positive	[5]	1						
Creator-related factors associated with crowdfunding success										
Preparedness		Positive	[46, 52]	2						
		Non-significant	[22]	1						
Passion		Negative	[52]	1						
		Non-significant	[22, 46]	2						

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Innovativeness	Incremental innovativeness	Positive	[22]	1						
	Radical innovativeness	Negative	[22]	1						
Sexual orientation	A dummy variable	Negative	[53]	1						
		Non-significant	[53]	1						
User entrepreneurship		Positive	[46]	1						
Experience	Number of previous projects created	Positive	[11, 13, 15, 41, 42, 53, 60, 61, 74, 79, 81]	11						
		Negative	[31, 43, 60, 66]	4						
		Non-significant	[18, 31, 53, 54, 60, 61, 66, 79, 82, 84]	10						
	Number of previously successful projects created	Positive	[20, 45, 68, 70]	4			[65]	1		
		Non-significant	[23]	1						
	Number of previous unsuccessful projects created	Negative	[23]	1						
	Number of previous projects backed	Positive	[5, 11, 13, 28, 31, 56, 61, 62, 68, 81, 82, 89]	12						
		Negative	[2, 66]	2						
		Non-significant	[2, 31, 61, 66, 70]	5						
	Number of previously successful projects backed	Positive	[15]	1						
	Ratio of previously successful projects backed	Positive	[29]	1						
	Have the backing experience = 1, 0 otherwise	Positive	[5]	1						
	Number of previous projects created and backed	Positive	[29]	1						

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
	Have the same funding experience = 1, 0 otherwise	Positive	[55, 59]	2	[72]	1	[27]	1		
		Negative	[41]	1						
		Non-significant	[46]	1						
	Prior crowdfunding success = 1, 0 otherwise	Non-significant	[46]	1	[77]	1				
	Entrepreneurial experience	Positive	[53]	1	[3, 72, 80]	3				
		Negative	[52]	1						
		Non-significant	[44, 54]	2	[12, 73, 80]	3				
	Work experience/skills	Positive			[3]	1				
		Non-significant	[56]	1	[77]	1				
Education		Positive			[3, 73, 80]	3				
		Negative	[55]	1						
		Non-significant	[44, 52, 54, 56]	4	[49, 80]	2				
Patent ownership		Positive	[44]	1						
		Non-significant			[12, 17, 25, 58, 72, 73]	6				
Facebook friends		Positive	[14, 15, 18, 20, 23, 28, 29, 48, 53, 54, 62, 63, 81]	13			[65]	1	[87]	1
		Negative	[34, 35]	2			[65]	1		
		Non-significant	[45, 51, 53, 62, 82]	5						
Culture	Cultural difference	Positive	[19]	1					[19]	1
		Negative					[67]	1		

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Geography	Geographic distance	Negative					[67]	1		
		Non-significant	[48, 84]	2						
	US = 1, 0 otherwise	Positive	[6, 18, 21]	3						
		Negative	[6, 60, 79]	3						
		Non-significant	[23, 45, 60, 78, 79, 94]	6						
	France = 1, 0 otherwise	Non-significant	[38]	1						
	London = 1, 0 otherwise	Non-significant			[3]	1				
	Europe = 1, 0 otherwise	Non-significant	[79, 94]	2						
	Same state = 1, 0 otherwise	Positive					[64]	1		
	Developed countries = 1, 0 otherwise	Non-significant	[2]	1						
	A categorical variable	Positive	[31, 51]	2						
		Negative	[31, 51]	2						
		Non-significant	[31, 51, 59, 74]	4						
	Group test		[16, 28, 61, 86]	4						
Race	Caucasian = 1, 0 otherwise	Positive	[52–54]	3						
		Non-significant	[44, 46]	2						
	Black = 1, 0 otherwise	Negative	[63]	1						
	Belong to an ethnic minority = 1	Positive	[56]	1						
Language	Italian = 1, 0 otherwise	Negative	[39]	1						
	German = 1, 0 otherwise	Non-significant	[85]	1						

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Creator type	Company/group = 1, 0 otherwise	Positive	[19, 41, 55, 60, 71, 85]	6			[26]	1	[19]	1
		Negative					[47]	1		
		Non-significant	[2, 19, 60]	3	[12]	1			[19]	1
	Individual = 1, 0 otherwise	Negative	[60, 66]	2	[3, 12]	2				
		Non-significant	[60]	1						
Gender	Male = 1, 0 otherwise	Positive					[47]	1		
		Negative	[21, 46, 54, 55, 59, 76]	6						
		Non-significant	[38, 44, 52, 78]	4			[27]	1		
	Female = 1, 0 otherwise	Positive	[19, 38, 51, 53, 56, 60, 63, 71]	8			[26]	1	[19]	1
		Non-significant	[2, 21, 53, 56, 60]	5						
	Gender homophily	Positive	[84]	1						
Credibility		Positive	[2, 59]	2						
Picture/logo		Positive	[2]	1						
		Non-significant	[2]	1						
Entrepreneur aspect		Positive	[10]	1						
		Negative	[10]	1						
		Non-significant	[10]	1						
Brand prominence		Positive	[42]	1						
Self-funding	A certain campaign received funding from the fundraiser behind it = 1, 0 otherwise	Positive	[4]	1						
	The average amount of self-funding in each campaign	Positive	[4]	1						

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Firm age	A categorical variable	Negative			[80]	1				
	Firm age in days	Negative			[72]	1				
		Non-significant			[72, 73]	2				
	Start-up = 1	Positive			[3]	1				
		Negative			[3]	1				
		Non-significant			[3]	1				
Prior funding		Positive			[3, 72, 73]	3				
		Negative			[3]	1				
		Non-significant			[73]	1				
Diversification		Negative			[3]	1				
		Non-significant			[3]	1				
Backer-related factors associated with crowdfunding success										
Funder positive affective reactions		Positive	[52]	1						
Motive		Positive	[91]	1						
Experience	Ratio of previously successful projects backed	Positive			[49]	1				
	Entrepreneurial experience	Positive			[49]	1				
	Sum of previous investments	Positive	[66]	1						
		Negative	[66]	1						
		Non-significant	[7]	1						
Platform tenure		Non-significant	[7]	1						
Geography		Positive	[33]	1						
Platform-related factors associated with crowdfunding success										

Table 8 (continued)

Determinant	Subdivided definition	Effect	Reward-based		Equity-based		Loan-based		Donation-based	
			Studies	#	Studies	#	Studies	#	Studies	#
Competition		Positive	[41]	1						
		Non-significant	[71]	1						
Platform type	Keep-it-all = 1, 0 otherwise	Negative	[88]	1						
	All-or-nothing = 1, 0 otherwise	Non-significant	[94]	1						
	GoFundMe vs. Kickstarter	Negative	[19]	1					[19]	1
		Non-significant	[19]	1					[19]	1
	Seedrs vs. Crowdcube	Positive			[77]	1				
		Non-significant			[72, 77]	2				
	Group test				[72]	1				
	Keep-it-all or All-or-nothing control		[13]	1						
Platform age		Positive	[16]	1						
		Negative	[16]	1						
		Non-significant	[16]	1						

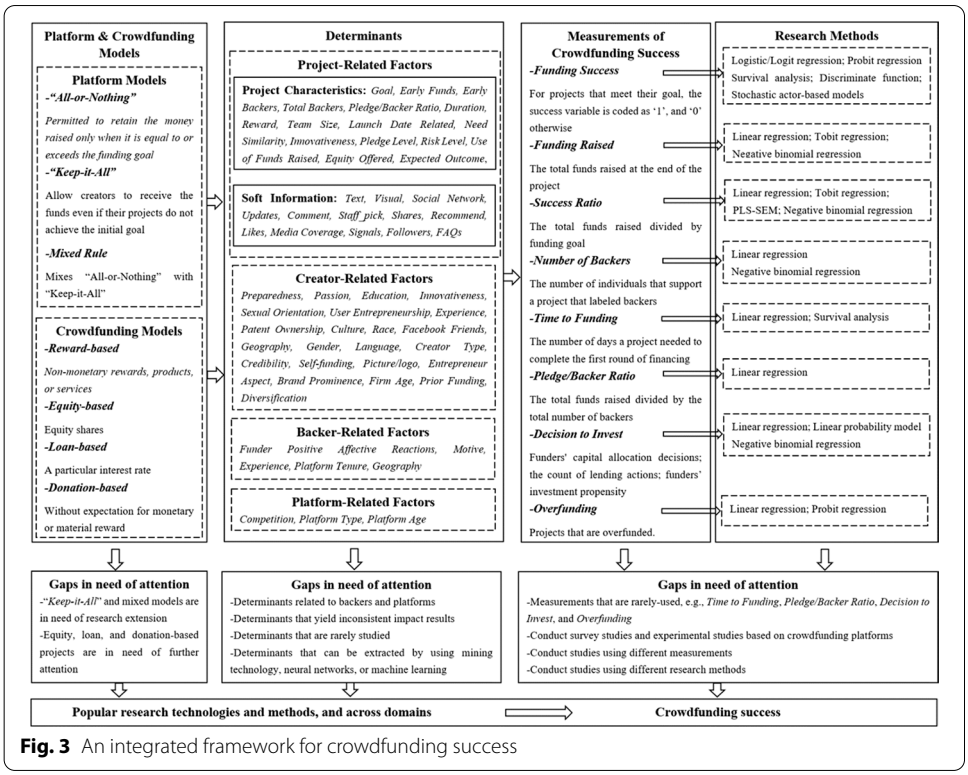

Fig. 3 An integrated framework for crowdfunding success

As displayed in Fig. 3, the main measurements of crowdfunding success in the extant literature are *Funding success*, *Funding Raised*, *Success Ratio*, *Number of Backers*, *Time to Funding*, *Pledge/Backer Ratio*, *Decision to Invest*, and *Overfunding*, and the concept of each measurement is shown in detail. Among these measurements, *Time to Funding* is in contrast to crowdfunding success, as the longer the fundraising time, the less successful a project is. Therefore, the determinants' impacts may differ when adopting this measurement. In particular, *Funding Success*, *Funding Raised*, *Success Ratio*, and *Number of Backers* are the most widely adopted measurements in current research, while other measurements are the minority. Moreover, *Funding Success* is adopted in more than 60% of the 94 selected papers. A possible explanation is that 86 out of 94 papers use data from "All-or-Nothing" platforms, which, to a large extent, enable researchers to set a dummy variable to reflect success. Considering that other measurements can also reflect the success of crowdfunding projects but are rarely studied by extant research and that different measurements of crowdfunding success can lead to different findings; we argue that future work could adopt these rarely used measurements of crowdfunding success to obtain new insights. As mentioned above, more than 90% of the papers use data from platforms following the "All-or-Nothing" rule. Therefore, ample possibilities exist to obtain more novel findings by using the data from some niche crowdfunding platforms, especially the platforms following the "Keep-it-All" rule or mixed rules that combine "All-or-Nothing" and "Keep-it-All". In addition, we also find that a handful of papers conduct surveys or experimental studies, which can create a deep understanding of individuals' funding and backing behaviors and even the operation mode of crowdfunding platforms. Hence, we propose that future research should conduct surveys and

experimental studies based on crowdfunding platforms more intensively. For example, future studies can conduct survey studies based on a crowdfunding platform and investigate the impacts of the determinants on *Decision to Invest* from the backers' perspective.

Most studies adopt a linear regression model to test the effects of the determinants on crowdfunding success, except for the measurement of *Funding Success*. In particular, the dichotomous variable *Funding Success* is widely used in logistic/logit regression and probit regression models. Notably, survival analysis is mostly conducted in the research for *Time to Funding,* tobit regression for *Success Ratio*, and negative binomial regression for *Number of Backers*, reflecting that the measurement of crowdfunding success determines the research method. As presented in the framework in Fig. 3, there is a need to conduct studies using different measurements of crowdfunding success and different research methods. According to our review, 31 out of 94 papers use multiple measurements of crowdfunding success, which clearly shows the influencing mechanism with different measurements and research methods (see Table A3 in Appendix 3).

The framework classifies the factors that are determinants of crowdfunding success into four categories: project-related factors (associated with project characteristics and soft information), creator-related factors, backer-related factors, and platform-related factors. Among these determinants, only five and three are considered in the studies investigating backer-related (six papers) and platform-related (ten papers) factors, respectively. Thus, the determinants of backers and platforms may require more attention. Moreover, many determinants related to projects or creators are still required further investigation. According to our review, there are both consistent and inconsistent findings regarding the impact of crowdfunding success determinants. We find that the same factor can yield inconsistent results due to different measurements of crowdfunding success (e.g., *Goal* and *Duration* have roughly negative effects in studies focusing on *Funding Success*, but have mixed effects in studies focusing on *Funds Raised*). Those determinants with subdivided definitions such as *Reward*, *Text*, *Visual*, *Comment*, and creators' *Experience* can also have conflicting effects on crowdfunding success. We argue that the determinants with inconsistent effects warrant future research attention, especially from the perspective of the measurements of crowdfunding success and the definitions of the determinants, rather than merely investigating their significance and the directions of the effects.

In addition, we discover that the selected papers rarely use text, image, and video mining techniques. These widely used techniques in the business field can be applied to examine the impacts of determinants such as *Text*, *Visual*, and *Comment* on crowdfunding success, thereby extending the research to behavior and psychology. As can be concluded from the 94 selected papers, the widely studied determinants related to *Text*, *Visual*, and *Comment* include word count, visual quantity and availability, and comment quantity and availability. In contrast, the determinants that need mining techniques (e.g., readability, sentiment, linguistic styles, and specific terms of text and comments that require textual analysis, and the quality and valence of visual analysis that require recognition technology) account for a minority. Moreover, with the development of the Internet and networks, the content on social networks is increasing dynamically, making it difficult to identify potential determinants of crowdfunding success by utilizing traditional analytical methods. Therefore, for future research, neural networks and machine

learning methods can be used to investigate more determinants related to social media (e.g., *Social Network*, *Shares, Likes*, *Media Coverage*, and *Facebook Friends*) and to learn how social network relationships among individuals or groups play a role in the success of crowdfunding projects. For example, artificial neural networks can be used to build project-, fundraiser-, and funder-oriented social network graphs by extracting relevant content from projects as well as unique social features of fundraisers and funders, which can provide insights into the deep links between projects and funders, and further identify the possibility of success in crowdfunding projects (Rivas et al. 2020).

Crowdfunding models of projects also need attention in future work. First, most of the reviewed papers investigate the success of reward-based crowdfunding projects (79 out of 94 papers), and fewer than 20 papers focus on equity-based projects. In comparison, only ten papers analyze loan- and donation-based projects. Importantly, it is challenging to summarize the overall significance and directions of the determinants related to the success of loan- and donation-based projects based on the limited literature. Therefore, researchers are encouraged to devote more attention to equity-, loan-, and donation-based projects to find new insights into the determinants of crowdfunding success in their future endeavors. Second, we find that the determinants considered in reward- and equity-based studies are roughly different. Several determinants considered in both crowdfunding models are paradoxically found to have different effects. In particular, for equity-based projects, we find that the determinants related to soft information, creators, backers, and platforms are rarely examined in current studies. Therefore, they should receive more research efforts in future research.

To conclude, platform models, crowdfunding models, and measurements of crowdfunding success should be considered when analyzing the determinants of crowdfunding success. Opportunities still exist in future research for projects that belong to rarely examined platforms or crowdfunding models. The determinants investigated by a few studies also need more attention, which requires a combination of some more recent methods and techniques across multiple domains.

Conclusion and discussions

Conclusion

We conduct a review of extant research on the determinants of crowdfunding success. Our review is based on the approach of an assessment review to assess different studies and identify the aspects that need more attention in future research. Following the guidelines for the literature search and review advocated by Hossain et al. (2019) and Leidner (2018), we select 94 empirical studies from 2011 to 2021 from 37 journals, three conference proceedings, and other resources (i.e., working papers, theses, reports, and books) with a multistage search strategy. We then collate and analyze them based on different measurements of crowdfunding success and different crowdfunding models to separately list and assess the determinants. We assess the empirical impacts of various determinants on the success of crowdfunding projects and summarize several influencing rules to provide multiple potential dimensions of theory and practice for future work on crowdfunding success. Finally, we construct an integrated framework for the determinants of crowdfunding success and highlight several research gaps in the need of more attention. We identify eight main ways to measure crowdfunding success and

find that the dichotomous variable *Funding Success* and the continuous variables *Funds Raised*, *Success Ratio*, and *Number of Backers* are the most common measurements of crowdfunding success. We document the definitions and measurements of crowdfunding success, the different crowdfunding models, and various determinants that can affect the empirical findings. We also suggest that the platforms that follow a "Keep-it-All" or mixed model, the projects that belong to equity-, loan-, and donation-based models, the determinants related to backers and platforms, and the determinants with inconsistent findings or those that are rarely studied further merit exploration. We also call for popular techniques (e.g., text, image, and video mining) and methods (e.g., neural networks and machine learning), as well as multiple domains, such as behavior and psychology, to be more intensively considered in future work.

Discussion

We identify 94 empirical studies that examine the empirical effects of the determinants on crowdfunding success, most of which are from Entrepreneurship Theory and Practice and the Journal of Business Venturing. We find that the extant literature has generally been published in the fields of business and economics and computer science since 2011. Through our collation and analysis of the selected papers, we conclude eight main ways to measure crowdfunding success, which responds to Question (1) proposed in our Research Goals section. The dichotomous variable *Funding Success* and the continuous variable *Funds Raised*, *Success Ratio*, and *Number of Backers* are the most widely used measurements of crowdfunding success. Furthermore, the measurement of crowdfunding success determines the research method. Papers focusing on *Funding Success* widely adopt logistic/logit regression or probit regression; papers on *Funds Raised* and *Success Ratio* widely use linear regression, while papers on *Number of Backers* commonly use negative binomial regression. Papers using other measurements of crowdfunding success are the minority, which reveals a gap in the need for attention in future research. It is worth noting that the choice of research method is appropriate for measuring crowdfunding success. In addition, there is also a need to conduct surveys and experimental studies based on crowdfunding platforms to study individuals' or groups' behavior, as the majority of the extant literature merely uses secondary data collected from crowdfunding platforms. In this case, the measurements of crowdfunding success rarely studied in the extant literature (e.g., *Decision to Invest*) can be considered. We list the studies that use multiple measurements of crowdfunding success and the research methods adopted in Appendix 3, which can be used as a reference.

To address Question (2) proposed in the Research Goals section, we list the measurements and definitions of the determinants in Table 6. The studies that examine a certain determinant and the direction of influence for each determinant are listed in Table 6. We classify the determinants into four categories based on Koch and Siering (2015),

Kaartemo (2017) and Zhou et al. (2018). Although most selected studies have widely studied project- and creator-related factors, backer- and platform-related factors are rarely considered. The most widely examined are *Goal, Duration, Reward, Team Size,* and *Category* related to project characteristics. Many of the selected studies investigate *Text*, *Visual*, *Social Network*, *Updates*, and *Comments*, which are factors associated with project soft information. In addition, creators' *Experience*, *Facebook Friends*, geographic differences, and gender differences are also examined by studies on creator-related factors. According to our review of the determinants, researchers can focus on relatively new or unique variables that have rarely been studied in the extant literature. Accordingly, the backer- and platform-related factors, the factors that yield inconsistent findings, or those rarely studied merit further exploration.

Furthermore, we assess the empirical effects of the determinants on crowdfunding success by considering each measurement of success and each crowdfunding model separately and subdividing some determinants in response to Questions (3) and (4). We document that the measurement of crowdfunding success is one of the important reasons for the differences in the research results, and different definitions for the same types of determinants can also display conflicting effects on crowdfunding success. Moreover, different measurements for crowdfunding success or a determinant can also yield different results even within the same paper. For example, Anglin et al. (2018a) find that *Goal* and *Duration* negatively affect *Funding Success* but have no relationship with *Funds Raised*, and creators' *Experience*, which refers to the number of previous projects created, has no connection with *Funding Success* and *Funds Raised*. In contrast, entrepreneurial experience is found to have a positive effect. Therefore, it is important to identify each determinant's definition and measurement of crowdfunding success. This will affect the ability to accurately assess the success of crowdfunding projects and influence researchers' degree of attention to various factors. In addition, we also underline that the determinants with inconsistent findings and those with subdivided definitions such as *Reward*, *Text*, *Visual*, *Comment*, and creators' *Experience* need more attention in the future. Combining popular techniques that can handle text, image, and video content (e.g., text, image, and video mining), popular research methods in the field of social networks (e.g., neural networks and machine learning), and knowledge from other domains, such as psychological and behavioral sciences, can yield more interesting findings. Moreover, we note that the crowdfunding projects involved in a majority of the selected papers (more than half) belong to the reward-based model and are from "All-or-Nothing" platforms. There is significant variation among the determinants considered in studies focusing on different crowdfunding models, and several determinants are found to have different effects in different crowdfunding models; therefore, we conjecture that the data collected from "All-or-Nothing" reward-based crowdfunding platforms may be more comprehensive, larger scale, and more suitable for conducting research. Nevertheless, other niche platforms and equity-, loan-, and donation-based projects may also contain valuable information discovered in the related literature.

Contributions and future work

Contributions

Our work contributes to both theory and practice.

The theoretical contributions of this study are as follows: First, we conduct a review of the extant empirical research on the determinants of crowdfunding success, which can help researchers comprehend the findings of previous empirical studies. Most importantly, from the selected papers, we summarize eight main ways to measure crowdfunding success, which will provide an important basis for relevant research in the future by helping researchers select an appropriate measurement. Second, we build a list of the determinants of crowdfunding success and the inconsistencies found in the literature chosen based on different measurements of crowdfunding success or different crowdfunding models, which will be useful in future studies. According to our detailed list of the determinants, researchers can determine the definition of a determinant and focus on relatively new or unique variables rarely studied in the extant literature. Third, we propose a new research framework for future literature reviews, namely, using statistical methods to assess the empirical research and explore the inconsistent findings in the literature.

In terms of practice, the categorization of and empirical findings for the different measurements of crowdfunding success, different crowdfunding models, and the determinants will help creators and backers estimate the success of crowdfunding projects and understand essential factors based on different conditions. Project creators will be able to publish more attractive projects, and backers will be able to improve the likelihood of success of their funding decisions based on a deep understanding of this review. They can create or back a project according to the platform rules and the influencing mechanisms of each factor that we have subdivided and assessed to achieve funding success or backing success.

Limitations and future work

Similar to any other study, this study has several limitations. First, although we search as many sources as possible to identify and analyze empirical studies on the determinants of crowdfunding success, the possibility that we have omitted some relevant studies still exists. Consequently, other factors influencing crowdfunding success may have been missed. Therefore, in the future, we will conduct a more comprehensive search for existing empirical studies on this topic and construct a more comprehensive research framework. Moreover, we only use a statistical and qualitative approach to review the literature. In future research, we will utilize a quantitative method, the meta-analysis approach, to better understand the influence of the determinants of crowdfunding success and reconcile the contradictory findings of previous studies.

Appendix 1

See the Table 9.

Table 9 Considered sources of studies

Source			Search field(s)
Web search engine	Baidu Scholar		All fields
	Google Scholar		All fields
Database	EBSCOhost		Text/title/abstract/keywords
	INFORMS		Title/keywords
	JSTOR		All fields
	SAGE journals		Title/abstract/keywords
	ScienceDirect		Title/abstract/keywords
	SSRN		Text/title/abstract/keywords
	Taylor and Francis Online		Title/keywords
	Web of Science		All fields
	Wiley Online Library		Title/abstract/keywords
Journal	Administrative Science Quarterly		All fields
	Decision Support Systems		Title/abstract/keywords
	Entrepreneurship-Theory and Practice		Title/abstract/keywords
	Information Systems Research		Title/keywords
	Journal of Business Venturing		Title/abstract/keywords
	Journal of Management Information Systems		Title/keywords
	Management Science		Title/keywords
	MIS Quarterly		Title/abstract
	Organization Science		Title/keywords
Conference	Information systems	Americas Conference on Information Systems (AMCIS)	All fields
		European Conference on Information Systems (ECIS)	All fields
		Hawaii International Conference on System Sciences (HICSS)	All fields
		International Conference on Information Systems (ICIS)	All fields
		Pacific Asia Conference on Information Systems (PACIS)	All fields
	Entrepreneurship	European Conference on Innovation and Entrepreneurship (ECIE)	Each conference collection
		International AAAI Conference on Web and Social Media (ICWSM)	Each conference collection
		International Conference on Entrepreneurship and Innovation Management (ICEIM)	Each conference collection
		International Conference on Innovation and Entrepreneurship (ICIE)	Each conference collection

Appendix 2

See the Table 10.

Table 10 List of the 94 reviewed studies

Studies		Sample size
1	Greenberg J, Mollick E (2017) Activist choice homophily and the crowdfunding of female founders. Administrative Science Quarterly 62(2): 341–374. https://doi.org/10.1177/0001839216678847	992
2	Bukhari FAS, Usman SM, Usman M, Hussain K (2019) The effects of creator credibility and backer endorsement in donation crowdfunding campaigns success. Baltic Journal of Management 15(2): 215–235. https://doi.org/10.1108/bjm-02-2019-0077	223
3	Coakley J, Lazos A, Liñares-Zegarra JM (2021) Equity crowdfunding founder teams: Campaign success and venture failure. British Journal of Management https://doi.org/10.1111/1467-8551.12494	1291
4	Zhao L, Shneor R, Sun Z (2021) Skin in the game: Self-funding and reward crowdfunding success. Business Horizons https://doi.org/10.1016/j.bushor.2021.09.007	1583
5	Zhao L, Vinig T (2019) Guanxi, trust and reward-based crowdfunding success: A Chinese case. Chinese Management Studies 14(2): 455–472	989
6	Wang W, He L, Wu YJ, Goh M (2021) Signaling persuasion in crowdfunding entrepreneurial narratives: The subjectivity vs objectivity debate. Computers in Human Behavior 114: 106,576. https://doi.org/10.1016/j.chb.2020.106576	328,947
7	Xiao S, Yue Q (2018) Investors' inertia behavior and their repeated decision-making in online reward-based crowdfunding market. Decision Support Systems 111: 101–112. https://doi.org/10.1016/j.dss.2018.05.005	20,035
8	Wessel M, Thies F, Benlian A (2016) The emergence and effects of fake social information: Evidence from crowdfunding. Decision Support Systems 90: 75–85. https://doi.org/10.1016/j.dss.2016.06.021	20,090
9	Lukkarinen A, Teich JE, Wallenius H, Wallenius J (2016) Success drivers of online equity crowdfunding campaigns. Decision Support Systems 87: 26–38. https://doi.org/10.1016/j.dss.2016.04.006	1742
10	Wang W, Chen W, Zhu K, Wang H (2020) Emphasizing the entrepreneur or the idea? The impact of text content emphasis on investment decisions in crowdfunding. Decision Support Systems 136: 113,341. https://doi.org/10.1016/j.dss.2020.113341	126,593
11	Wang N, Li Q, Liang H, Ye T, Ge S (2018) Understanding the importance of interaction between creators and backers in crowdfunding success. Electronic Commerce Research and Applications 27: 106–117. https://doi.org/10.1016/j.elerap.2017.12.004	959
12	Mamonov S, Malaga R (2018) Success factors in Title III equity crowdfunding in the United States. Electronic Commerce Research and Applications 27: 65–73. https://doi.org/10.1016/j.elerap.2017.12.001	133
13	Jiang C, Han R, Xu Q, Liu Y (2020) The impact of soft information extracted from descriptive text on crowdfunding performance. Electronic Commerce Research and Applications 43: 101,002. https://doi.org/10.1016/j.elerap.2020.101002	912
14	Kromidha E, Robson P (2016) Social identity and signalling success factors in online crowdfunding. Entrepreneurship and Regional Development 28(9–10): 605–629. https://doi.org/10.1080/08985626.2016.1198425	4996
15	Koch J-A, Siering M (2019) The recipe of successful crowdfunding campaigns. Electronic Markets 29(4): 661–679. https://doi.org/10.1007/s12525-019-00357-8	32,083
16	Shneor R, Mrzygłód U, Adamska-Mieruszewska J, Fornalska-Skurczyńska A (2021) The role of social trust in reward crowdfunding campaigns' design and success. Electronic Markets https://doi.org/10.1007/s12525-021-00456-5	700
17	Vismara S (2016) Information cascades among investors in equity crowdfunding. Entrepreneurship Theory and Practice 42(3): 467–497. https://doi.org/10.1111/etap.12261	132
18	Skirnevskiy V, Bendig D, Brettel M (2017) The influence of internal social capital on serial creators' success in crowdfunding. Entrepreneurship Theory and Practice 41(2): 209–236. https://doi.org/10.1111/etap.12272	2003
19	Josefy M, Dean TJ, Albert LS, Fitza MA (2017) The role of community in crowdfunding success: Evidence on cultural attributes in funding campaigns to "save the local theater". Entrepreneurship Theory and Practice 41(2): 161–182. https://doi.org/10.1111/etap.12263	176
20	Courtney C, Dutta S, Li Y (2017) Resolving information asymmetry: Signaling, endorsement, and crowdfunding success. Entrepreneurship Theory and Practice 41(2): 265–290. https://doi.org/10.1111/etap.12267	71,005
21	Colombo MG, Franzoni C, Rossi-Lamastra C (2015) Internal social capital and the attraction of early contributions in crowdfunding. Entrepreneurship Theory and Practice 39(1): 75–100. https://doi.org/10.1111/etap.12118	502

Table 10 (continued)

	Studies	Sample size
22	Chan CSR, Parhankangas A (2017) Crowdfunding innovative ideas: How incremental and radical innovativeness influence funding outcomes. Entrepreneurship Theory and Practice 41(2): 237–263. https://doi.org/10.1111/etap.12268	334
23	Butticè V, Colombo MG, Wright M (2017) Serial crowdfunding, social capital, and project success. Entrepreneurship Theory and Practice 41(2): 183–207. https://doi.org/10.1111/etap.12271	31,389/3937
24	Allison TH, Davis BC, Short JC, Webb JW (2015) Crowdfunding in a prosocial microlending environment: Examining the role of intrinsic versus extrinsic cues. Entrepreneurship Theory and Practice 39(1): 53–73. https://doi.org/10.1111/etap.12108	36,586
25	Ahlers GKC, Cumming DJ, Günther C, Schweizer D (2015) Signaling in equity crowdfunding. Entrepreneurship Theory and Practice 39(4): 955–980. https://doi.org/10.1111/etap.12157	104
26	Moss TW, Neubaum DO, Meyskens M (2015) The effect of virtuous and entrepreneurial orientations on microfinance lending and repayment: A signaling theory perspective. Entrepreneurship Theory and Practice 39(1): 27–52. https://doi.org/10.1111/etap.12110	403,445
27	Barasinska N, Schäfer D (2014) Is crowdfunding different? Evidence on the relation between gender and funding success from a german peer-to-peer lending platform. German Economic Review 15(4): 436–452. https://doi.org/10.1111/geer.12052	4144
28	Zheng H, Li D, Wu J, Xu Y (2014) The role of multidimensional social capital in crowdfunding: A comparative study in China and US. Information and Management 51(4): 488–496. https://doi.org/10.1016/j.im.2014.03.003	515/270
29	Zhou MJ, Lu B, Fan WP, Wang GA (2018) Project description and crowdfunding success: An exploratory study. Information Systems Frontiers 20(2): 259–274. https://doi.org/10.1007/s10796-016-9723-1	151,752
30	Burtch G, Ghose A, Wattal S (2016) Secret admirers: An empirical examination of information hiding and contribution dynamics in online crowdfunding. Information Systems Research 27(3): 478–496. https://doi.org/10.1287/isre.2016.0642	397,053
31	Boeuf B, Darveau J, Legoux R (2014) Financing creativity: Crowdfunding as a new approach for theatre projects. International Journal of Arts Management 16(3): 33–48	875
32	Koh Y, Lee M, Kim J, Yang Y (2020) Successful restaurant crowdfunding: The role of linguistic style. International Journal of Contemporary Hospitality Management 32(10): 3051–3066. https://doi.org/10.1108/ijchm-02-2020-0159	500
33	Lelo de Larrea G, Altin M, Singh D (2019) Determinants of success of restaurant crowdfunding. International Journal of Hospitality Management 78: 150–158. https://doi.org/10.1016/j.ijhm.2018.10.003	1567
34	Hobbs J, Grigore G, Molesworth M (2016) Success in the management of crowdfunding projects in the creative industries. Internet Research 26(1): 146–166. https://doi.org/10.1108/IntR-08-2014-0202	100
35	Yin C, Liu L, Mirkovski K (2019) Does more crowd participation bring more value to crowdfunding projects? The perspective of crowd capital. Internet Research 29(5): 1149–1170. https://doi.org/10.1108/intr-03-2018-0103	14,079
36	Chen S, Thomas S, Kohli C (2016) What really makes a promotional campaign succeed on a crowdfunding platform?: Guilt, utilitarian products, emotional messaging, and fewer but meaningful rewards drive donations. Journal of Advertising Research 56(1): 81–94. https://doi.org/10.2501/JAR-2016-000	200
37	Defazio D, Franzoni C, Rossi-Lamastra C (2020) How pro-social framing affects the success of crowdfunding projects: The role of emphasis and information crowdedness. Journal of Business Ethics https://doi.org/10.1007/s10551-020-04428-1	8631
38	Hervé F, Manthé E, Sannajust A, Schwienbacher A (2019) Determinants of individual investment decisions in investment-based crowdfunding. Journal of Business Finance and Accounting 46(5–6): 762–783. https://doi.org/10.1111/jbfa.12372	8698/10112
39	Lagazio C, Querci F (2018) Exploring the multi-sided nature of crowdfunding campaign success. Journal of Business Research 90: 318–324. https://doi.org/10.1016/j.jbusres.2018.05.031	1507
40	Bi S, Liu Z, Usman K (2017) The influence of online information on investing decisions of reward-based crowdfunding. Journal of Business Research 71: 10–18. https://doi.org/10.1016/j.jbusres.2016.10.001	999
41	Chan HF, Moy N, Schaffner M, Torgler B (2021) The effects of money saliency and sustainability orientation on reward based crowdfunding success. Journal of Business Research 125: 443–455. https://doi.org/10.1016/j.jbusres.2019.07.037	69,221
42	Moradi M, Badrinarayanan V (2021) The effects of brand prominence and narrative features on crowdfunding success for entrepreneurial aftermarket enterprises. Journal of Business Research 124: 286–298. https://doi.org/10.1016/j.jbusres.2020.12.002	343
43	Tafesse W (2021) Communicating crowdfunding campaigns: How message strategy, vivid media use and product type influence campaign success. Journal of Business Research 127: 252–263. https://doi.org/10.1016/j.jbusres.2021.01.043	8027
44	Scheaf DJ, Davis BC, Webb JW, Coombs JE, Borns J, Holloway G (2018) Signals' flexibility and interaction with visual cues: Insights from crowdfunding. Journal of Business Venturing 33(6): 720–741. https://doi.org/10.1016/j.jbusvent.2018.04.007	323

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45	Parhankangas A, Renko M (2016) Linguistic style and crowdfunding success among social and commercial entrepreneurs. Journal of Business Venturing 32(2): 215–236. https://doi.org/10.1016/j.jbusvent.2016.11.001	656
46	Oo PP, Allison TH, Sahaym A, Juasrikul S (2018) User entrepreneurs' multiple identities and crowdfunding performance: Effects through product innovativeness, perceived passion, and need similarity. Journal of Business Venturing https://doi.org/10.1016/j.jbusvent.2018.08.005	300
47	Moss TW, Renko M, Block E, Meyskens M (2018) Funding the story of hybrid ventures: Crowdfunder lending preferences and linguistic hybridity. Journal of Business Venturing 33(5): 643–659. https://doi.org/10.1016/j.jbusvent.2017.12.004	83,176
48	Mollick E (2014) The dynamics of crowdfunding: An exploratory study. Journal of Business Venturing 29(1): 1–16. https://doi.org/10.1016/j.jbusvent.2013.06.005	9603/47976
49	Mahmood A, Luffarelli J, Mukesh M (2019) What's in a Logo? The Impact of Complex Visual Cues in Equity Crowdfunding. Journal of Business Venturing 34(1): 41–62. https://doi.org/10.1016/j.jbusvent.2018.09.006	10,611
50	Kuppuswamy V, Bayus BL (2017) Does my contribution to your crowdfunding project matter? Journal of Business Venturing 32(1): 72–89. https://doi.org/10.1016/j.jbusvent.2016.10.004	275,220
51	Johnson MA, Stevenson RM, Letwin CR (2018) A woman's place is in the… startup! Crowdfunder judgments, implicit bias, and the stereotype vontent model. Journal of Business Venturing 33(6): 813–831. https://doi.org/10.1016/j.jbusvent.2018.04.003	416
52	Davis BC, Hmieleski KM, Webb JW, Coombs JE (2017) Funders' positive affective reactions to entrepreneurs' crowdfunding pitches: The influence of perceived product creativity and entrepreneurial passion. Journal of Business Venturing 32(1): 90–106. https://doi.org/10.1016/j.jbusvent.2016.10.006	918
53	Anglin AH, Wolfe MT, Short JC, McKenny AF, Pidduck RJ (2018) Narcissistic rhetoric and crowdfunding performance: A social role theory perspective. Journal of Business Venturing 33(6): 780–812. https://doi.org/10.1016/j.jbusvent.2018.04.004	1863
54	Anglin AH, Short JC, Drover W, Stevenson RM, McKenny AF, Allison TH (2018) The power of positivity? The influence of positive psychological capital language on crowdfunding performance. Journal of Business Venturing 33(4): 470–492. https://doi.org/10.1016/j.jbusvent.2018.03.003	1726
55	Allison TH, Davis BC, Webb JW, Short JC (2017) Persuasion in crowdfunding: An elaboration likelihood model of crowdfunding performance. Journal of Business Venturing 32(6): 707–725. https://doi.org/10.1016/j.jbusvent.2017.09.002	20,724
56	Rose S, Wentzel D, Hopp C, Kaminski J (2020) Launching for success: The effects of psychological distance and mental simulation on funding decisions and crowdfunding performance. Journal of Business Venturing: 106,021. https://doi.org/10.1016/j.jbusvent.2020.106021	961
57	Hörisch J (2015) Crowdfunding for environmental ventures: An empirical analysis of the influence of environmental orientation on the success of crowdfunding initiatives. Journal of Cleaner Production 107: 636–645. https://doi.org/10.1016/j.jclepro.2015.05.046	583
58	Signori A, Vismara S (2018) Does success bring success? The post-offering lives of equity-crowdfunded firms. Journal of Corporate Finance 50: 575–591. https://doi.org/10.1016/j.jcorpfin.2017.10.018	212
59	Duan Y, Hsieh T-S, Wang RR, Wang Z (2020) Entrepreneurs' facial trustworthiness, gender, and crowdfunding success. Journal of Corporate Finance 64: 101,693. https://doi.org/10.1016/j.jcorpfin.2020.101693	1770
60	Ullah S, Zhou Y (2020) Gender, anonymity and team: What determines crowdfunding success on Kickstarter. Journal of Risk and Financial Management 13(4): 80. https://doi.org/10.3390/jrfm13040080	27,117
61	Usman SM, Bukhari FAS, You H, Badulescu D, Gavrilut D (2020) The effect and impact of signals on investing decisions in reward-based crowdfunding: A comparative study of China and the United Kingdom. Journal of Risk and Financial Management 13(12): 325. https://doi.org/10.3390/jrfm13120325	500
62	Jin Y, Ding C, Duan Y, Cheng HK (2020) Click to success? The temporal effects of Facebook likes on crowdfunding. Journal of the Association for Information Systems 21(5): 1191–1213. https://doi.org/10.17705/1jais.00634	7289
63	Younkin P, Kuppuswamy V (2018) The colorblind crowd? Founder race and performance in crowdfunding. Management Science 64(7): 3269–3287. https://doi.org/10.1287/mnsc.2017.2774	7617
64	Lin M, Viswanathan S (2016) Home bias in online investments: An empirical study of an online crowdfunding market. Management Science 62(5): 1393–1414. https://doi.org/10.1287/mnsc.2015.2206	358,176
65	Hildebrand T, Puri M, Rocholl J (2017) Adverse incentives in crowdfunding. Management Science 63(3): 587–608. https://doi.org/10.1287/mnsc.2015.2339	32,966
66	Cornelius PB, Gokpinar B (2020) The role of customer investor involvement in crowdfunding success. Management Science 66(1): 452–472. https://doi.org/10.1287/mnsc.2018.3211	21,273
67	Burtch G, Ghose A, Wattal S (2014) Cultural differences and geography as determinants of online prosocial lending. MIS Quarterly 38(3): 773–794	6370
68	Zheng H, Professor Wu H, Guandong Xu A, Hung J-L, Qi Z, Xu B (2016) The role of trust management in reward-based crowdfunding. Online Information Review 40(1): 97–118. https://doi.org/10.1108/oir-04-2015-0099	829

Table 10 (continued)

Studies		Sample size
69	Steigenberger N, Wilhelm H (2018) Extending signaling theory to rhetorical signals: Evidence from crowdfunding. Organization Science 29(3): 529–546. https://doi.org/10.1287/orsc.2017.1195	2447
70	Hsieh H-C, Hsieh Y-C, Vu THC (2019) How social movements influence crowdfunding success. Pacific-Basin Finance Journal 53: 308–320. https://doi.org/10.1016/j.pacfin.2018.11.008	2043
71	Giudici G, Guerini M, Rossi-Lamastra C (2018) Reward-based crowdfunding of entrepreneurial projects: The effect of local altruism and localized social capital on proponents' success. Small Business Economics 50(2): 307–324. https://doi.org/10.1007/s11187-016-9830-x	618
72	Ralcheva A, Roosenboom P (2019) Forecasting success in equity crowdfunding. Small Business Economics 55(1): 39–56. https://doi.org/10.1007/s11187-019-00144-x	2171/868/1303
73	Kleinert S, Volkmann C, Grünhagen M (2020) Third-party signals in equity crowdfunding: The role of prior financing. Small Business Economics 54(1): 341–365. https://doi.org/10.1007/s11187-018-0125-2	221
74	Cappa F, Pinelli M, Maiolini R, Leone MI (2021) "Pledge" me your ears! The role of narratives and narrator experience in explaining crowdfunding success. Small Business Economics 57(2): 953–973. https://doi.org/10.1007/s11187-020-00334-y	5432
75	Borrero-Domínguez C, Cordón-Lagares E, Hernández-Garrido R (2020) Sustainability and real estate crowdfunding: Success factors. Sustainability 12(12): 5136. https://doi.org/10.3390/su12125136	60
76	von Selasinsky C, Lutz E (2021) The effects of pro-social and pro-environmental orientation on crowdfunding performance. Sustainability 13(11): 6064. https://doi.org/10.3390/su13116064	1049
77	Vismara S (2019) Sustainability in equity crowdfunding. Technological Forecasting and Social Change 141: 98–106. https://doi.org/10.1016/j.techfore.2018.07.014	294
78	Hörisch J, Tenner I (2020) How environmental and social orientations influence the funding success of investment-based crowdfunding: The mediating role of the number of funders and the average funding amount. Technological Forecasting and Social Change 161: 120,311. https://doi.org/10.1016/j.techfore.2020.120311	318
79	Zhang H, Chen W (2019) Crowdfunding technological innovations: Interaction between consumer benefits and rewards. Technovation 84–85: 11–20. https://doi.org/10.1016/j.technovation.2018.05.001	674
80	Nitani M, Riding A, He B (2019) On equity crowdfunding: Investor rationality and success factors. Venture Capital 21(2–3): 243–272. https://doi.org/10.1080/13691066.2018.1468542	319
81	Koch J (2016) The phenomenon of project overfunding on online crowdfunding platforms – Analyzing the drivers of overfunding. Twenty-Fourth European Conference on Information Systems (ECIS), İstanbul,Turkey	15,824
82	Koch J, Siering M (2015) Crowdfunding success factors: The characteristics of successfully funded projects on crowdfunding platforms. Twenty-Third European Conference on Information Systems (ECIS), Münster, Germany	762
83	Thies F, Wessel M, Rudolph J, Benlian A (2016) Personality matters: How signaling personality traits can influence the adoption and diffusion of crowdfunding campaigns. Twenty-Fourth European Conference on Information Systems (ECIS), İstanbul,Turkey	33,420
84	Posegga O, Zylka MP, Fischbach K (2015) Collective dynamics of crowdfunding networks. 48th Hawaii International Conference on System Sciences (HICSS). 2015, IEEE: Kauai, HI. p. 3258–3267	2241
85	Beier M, Wagner K (2015) Crowdfunding success: A perspective from social media and e-commerce. Thirty Sixth International Conference on Information Systems (ICIS), Fort Worth, Twxas	740
86	Agrawal AK, Catalini C, Goldfarb A (2011) The geography of crowdfunding. Working paper. w16820, N.B.o.E. Research	17,663
87	Crosetto P, Regner T (2014) Crowdfunding: Determinants of success and funding dynamics. Working paper. 2014–035, M.P.I.o. Economics	2252
88	Cumming DJ, Leboeuf GI, Schwienbacher A (2015) Crowdfunding models: Keep-it-all vs. all-or-nothing. Working paper	22,439
89	Moutinho N, Leite PM (2013) Critical success factors in crowdfunding: The case of Kickstarter. Working paper	17,457
90	Bengtson B (2019) A comparative study on the effect of environmental social value statements on crowdfunding success across various crowdfunding platforms. Working paper	150/50
91	Evers M (2012) Main drivers of crowdfunding success: A conceptual framework and empirical analysis. Dissertation, Erasmus University	8806
92	Joenssen DW, Michaelis A, Müllerleile T (2014) Link to new product preannouncement: Success factors in crowdfunding. Report	45,400
93	Müllerleile T, Joenssen DW (2015) Key success-determinants of crowdfunded projects: An exploratory analysis. In Data Science, Learning by Latent Structures, and Knowledge Discovery, B. Lausen, S. Krolak-Schwerdt and M. Böhmer (eds.). Berlin, Heidelberg: Springer, pp. 271–281	37,726
94	Cordova A, Dolci J, Gianfrate G (2015) The determinants of crowdfunding success: Evidence from technology projects. Procedia—Social and Behavioral Sciences 181: 115–124. https://doi.org/10.1016/j.sbspro.2015.04.872	410/723

Appendix 3

See the Table 11.

Table 11 Studies with multiple measurements for crowdfunding success

Study	Crowdfunding success	Research method
Ahlers et al. [25]	Funds raised	Linear regression
	Number of backers	Negative binomial regression
	Time to funding	Survival analysis
Anglin et al. [54]	Funding success	Logistic regression
	Funds raised	Linear regression
Anglin et al. [53]	Funding success	Logistic regression
	Funds raised	Linear regression
	Number of backers	Linear regression
Boeuf et al. [31]	Funds raised	Linear regression
	Number of backers	Negative binomial regression
	Pledge/backer ratio	Linear regression
Borrero-Domínguez et al. [75]	Funds raised	Linear regression
	Number of backers	Negative binomial regression
Bukhari et al. [2]	Funding success	Logistic regression
	Funds raised	Linear regression
	Number of backers	Linear regression
Chan et al. [41]	Funds raised	Linear regression
	Number of backers	Linear regression
Coakley et al. [3]	Funding success	Probit regression
	Funds raised	Linear regression
	Overfunding	Probit regression
Cordova et al. [94]	Funding success	Linear regression
	Success ratio	Probit regression
Duan et al. [59]	Funding success	Logit regression
	Funds raised	Linear regression
	Success ratio	Linear regression
	Number of backers	Linear regression
Hervé et al. [38]	Funding success	Probit regression
	Funds raised	Linear regression
	Success ratio	Linear regression
Hörisch and Tenner [78]	Success ratio	Linear regression
	Number of backers	Linear regression
	Pledge/backer ratio	Linear regression
Jin et al. [62]	Funding success	Logistic regression
	Success ratio	Linear regression
Johnson et al. [51]	Funding success	Logistic regression
	Funds raised	Poisson regression
Josefy et al. [19]	Funding success	Logistic regression
	Funds raised	Linear regression
	Number of backers	Linear regression
Kleinert et al. [73]	Funding success	Logit regression
	Number of backers	Negative binomial regression
Kromidha and Robson [14]	Funds raised	Linear regression
	Pledge/backer ratio	Linear regression
Lukkarinen et al. [9]	Funds raised	Linear regression
	Number of backers	Linear regression

Table 11 (continued)

Study	Crowdfunding success	Research method
Nitani et al. [80]	Funding success	Logistic regression
	Funds raised	Linear regression
	Time to funding	Survival analysis
Rose et al. [56]	Funding success	Logistic regression
	Funds raised	Linear regression
Shneor et al. [16]	Funding success	Logistic regression
	Success ratio	Linear regression
Tafesse [43]	Success ratio	Negative binomial regression
	Number of backers	Negative binomial regression
Ullah and Zhou [60]	Funding success	Logistic regression
	Funds raised	Linear regression
	Time to funding	Linear regression
	Overfunding	Linear regression
Usman et al. [61]	Funds raised	Linear regression
	Success ratio	Linear regression
Vismara [77]	Funding success	Logistic regression
	Number of backers	Negative binomial regression
von Selasinsky and Lutz [76]	Funding success	Logistic regression
	Funds raised	Linear regression
	Number of backers	Linear regression
Wang et al. [10]	Funding success	–
	Funds raised	–
	Success ratio	–
	Number of backers	–
Wang et al. [6]	Funding success	Logit regression
	Funds raised	Linear regression
	Success ratio	Linear regression
	Number of backers	Linear regression
Zhang and Chen [79]	Funding success	Logistic regression
	Number of backers	Linear regression
Zhao et al. [4]	Funding success	Logistic regression
	Funds raised	Linear regression
Zhao and Vinig [5]	Funding success	Logistic regression
	Funds raised	Linear regression

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Authors' contributions
LD carried out literature search, reading, collation, and analysis, and drafted the manuscript. QY conceived of the study, and helped to draft the manuscript. DX conducted data investigation, and performed the reviewing and editing for the manuscript. WS participated in the design of the study, and performed the reviewing and editing for the manuscript. GJ participated in conceptualization, and also performed the reviewing and editing for the manuscript. All authors read and approved the final manuscript.

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Declarations

Competing interests
The authors declare that they have no competing interests.

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Courtney C, Dutta S, Li Y (2017) Resolving information asymmetry: signaling, endorsement, and crowdfunding success. Entrep Theory Pract 41(2):265–290. https://doi.org/10.1111/etap.12267
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