

Crowdfunding small businesses and startups: a systematic review, an appraisal of theoretical insights and future research directions

Crowdfunding
small
businesses
and startups

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Abstract

Purpose – This contribution aims to evaluate key theoretical bases that were used in previous research, to investigate the use of crowdfunding platforms by small businesses and startups. It presents the findings from a systematic review to better explain the pros and cons of utilizing these disruptive technologies for crowdsourcing and/or crowd-investing purposes.

Design/methodology/approach – The researchers adopt the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodical protocol to search, screen, extract and scrutinize seventy-two (72) articles that were indexed in both Scopus and Web of Science. They examine their research questions, describe their methodologies. Afterwards, they synthesize the findings from previous literature, outline implications and discuss about future research avenues.

Findings – A thorough review of the relevant literature suggests that there are opportunities as well as challenges for project initiators as well as for crowd-investors, if they are considering equity crowdfunding, peer-to-peer (P2P) lending and rewards-based crowdfunding platforms, among others, to raise awareness about their projects and to access finance from crowd-investors.

Research limitations/implications – Further research is required on this timely topic. There are a number of theories relating to technology adoption and/or innovation management, strategic management, accounting and financial reporting, and normative/business ethics, among other research areas, that can be utilized as theoretical bases, to explore this topic.

Practical implications – Crowd-investors are striving in their endeavors to find a trade-off between risks and rewards associated with crowd-financing.

Originality/value – Currently, there are few systematic reviews and conceptual articles focused on the crowdfunding of small businesses and startups. Hence this contribution closes this gap in the academic literature. Moreover, it links the extant theory to practice. It clarifies that the resource-based view theory of the firm, the theory of planned behavior, the diffusion of innovations theory as well as the signaling theory, among other conceptual frameworks, can be used to investigate different facets of crowdsourcing and crowd-investing.

Keywords Crowdfunding, Crowd sourcing, Crowd-investing, Resource-based view, Diffusion of innovations, Signaling theory

Paper type Research paper

1. Introduction

Crowdfunding is an alternative method of raising funds that is independent from financial institutions. Individual entrepreneurs, startups and established businesses can utilize online crowdfunding platforms to access finance for new ventures or existing projects, from a large



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number of investors, in return for products or equity stakes (Belleflamme *et al.*, 2015; Camilleri, 2021; Mollick, 2014; Troise and Tani, 2020). Project initiators would usually specify their financing goals and set time frames with deadlines, for their crowdfunding campaigns. If the preset funding goal is not met, they will not garner any funds for their project.

The fund-raising campaigns have to appeal to as many investors as possible. Hence, initiators ought to feature engaging content, including texts, images, photos, videos and the like, to lure investors to support their innovative ideas, startups or business ventures. They can launch fundraising campaigns through various crowdfunding platforms, in different markets, to connect with online users, thereby circumventing traditional financial institutions like banks, venture capitalists and business angels. The crowdfunding websites disintermediate traditional distribution channels by connecting online users directly with project initiators (Camilleri, 2018a; Vismara, 2016). They serve as “network orchestrators” as they curate the offerings they receive (Bruton *et al.*, 2015; Vrontis *et al.*, 2020). As a result, more individuals and organizations are turning to crowdfunding sources to raise funds for business ventures, artistic or creative projects and for medical expenses, among other purposes. Alternatively, they use them to donate financial resources to cause-related projects (Camilleri, 2018b).

The crowd-investors would usually put their money in those ventures that hold lucrative potential. They may be considered as shareholders if they provide capital finance. There are various motivations that could attract individuals or groups to pledge their support to equity crowdfunding campaigns (Belleflamme *et al.*, 2014; Bonini and Capizzi, 2019; Hornuf and Schwienbacher, 2018), peer-to-peer (P2P) lending/lending crowdfunding (Boylan *et al.*, 2018; Polena and Regner, 2018), and to debt-securities crowdfunding (Boylan *et al.*, 2018; Cox and Nguyen, 2018; Gan *et al.*, 2021; Subramanian, 2020), among other crowdfunding products.

Prospective investors might be willing to be involved in the development and success of entrepreneurial projects including startups (Di Pietro *et al.*, 2018; Eiteneyer *et al.*, 2019; Oliva *et al.*, 2019; Paschen, 2017). They may be seeking a return on investment for their monetary contributions, particularly if they believe that project initiators could deliver exceptional service quality and/or are in a position to develop new technological innovations and cutting-edge products (Del Giudice *et al.*, 2021; Troise *et al.*, 2021). Hence, they will usually trust and have faith in the investees’ knowledge and capabilities, to foster positive change in business and society.

In this light, the researchers link key theoretical underpinnings relating to social capital (Groza *et al.*, 2020; Lin and Wang, 2021; Rezaei *et al.*, 2020; Troise *et al.*, 2020; Yang and Koh, 2022; Zheng *et al.*, 2014), stakeholder engagement (Camilleri, 2022b; Freeman, 1984; Valančienė and Jegelevičiūtė, 2014), resource-based view (RBV) (Barney, 1986; Lagazio and Querci, 2018; Wernerfelt, 1984; Mitrega *et al.*, 2021), technology adoption (Ajzen, 1991; Davis, 1989; Rahman *et al.*, 2020; Shneur and Munim, 2019) and to the diffusion of innovations theories (Bento *et al.*, 2019; Presenza *et al.*, 2019; Rogers, 2003; Yang and Lee, 2019; Yang *et al.*, 2016), among others, to better explain the acceptance and use of disruptive crowdfunding platforms among different stakeholders, including project initiators and crowd-investors.

A systematic research methodology was used to capture, analyze and synthesize previous research on crowdfunding of small businesses and startups. The authors discuss about the pros and cons of crowdfunding products. They elaborate on the demand for/supply of crowdfunding investments. Their argumentation is based on key theoretical insights including those related to the RBV, the theory of planned behavior as well as on the diffusion of innovation, among other models. Afterwards, they clarify the implications of their contribution, and put forward future research avenues to academia.

2. Theoretical insights

Previous research confirmed that crowdfunding has become a very popular field of study across different disciplines including finance, innovation management, information

technology and marketing, among other social sciences, in the past decade. Many researchers relied on different paradigms to explore this topic in depth and breadth. [Table 1](#) features some of the most popular theories that were used to shed light on the use of crowdfunding as an alternative strategy to raise finance from online sources.

3. Methodology

The researchers relied on a grounded theory approach ([Charmaz, 2014](#)), to capture and analyze data, that was retrieved through a systematic review from reliable sources. They followed PRISMA's robust, 4-stage protocol to search, screen, extract and synthesize the findings from previous contributions that were indexed in Scopus' and in Web of Sciences' emerging sources citations index (ESCI), science expanded (SCI-EXPANDED) and social sciences citations index (SSCI), as shown in [Figure 1](#). The bibliographic analysis was carefully planned and documented in all stages, to ensure accountability, integrity and transparency. PRISMA confirmed that the data collection and the analyses were rigorous and trustworthy ([Paschou et al., 2020](#)).

3.1 Searching

The systematic review considered publications that featured "crowdfunding" AND "small business(es)" OR "startup(s)" in their title, abstract and keywords. The search query was carried out through Scopus' and Web of Science's repositories. It considered the total number of publications that were written in English, from January 2017 up to December 2021. Scopus as well as Web of Science featured a list of contributing authors, identified their articles' subject areas and keywords. Moreover, they sorted them from highest to lowest number of citations. These two repositories distinguished between different publication stages, document types and source titles.

Empirical and theoretical/conceptual articles that were published in peer-reviewed journals were considered as eligible publications for this systematic review. The chosen list included only contributions that were indexed in Scopus and in Web of Science's core collections in (ESCI), SCI-EXPANDED and (SSCI). The researchers avoided the duplication of results from Scopus and Web of Sciences. Their search query excluded publications that were featured in books, book series, conference proceedings and trade publications from this review exercise. [Table 2](#) summarizes the search criteria:

3.2 Screening

The query yielded 213 document results in Scopus and 252 publications in Web of Science's repositories. These results were narrowed down to 107 documents in Scopus and to 140 documents in Web of Science, when the search was limited to journal articles and reviews, that were published in English, during the past five years (i.e. from January 2017 to December 2021).

According to Scopus, the top 10 subject areas of these articles were related to: Business, Management and Accounting (64); Economics, Econometrics and Finance (43); Social Sciences (27); Decision Sciences (10); Computer Science (9); Engineering (8); Environmental Science (5); Mathematics (4); Energy (3) and Psychology (2).

Web of Science indicated that the most researched areas were associated with Business Economics (89); Science Technology and Other Topics (18); Engineering (10); Environmental Sciences and Ecology (10); Computer Science (9); Information Science and Library Science (6); Communication (5); Government Law (4); Operations Research and Management Science (4); and Psychology (3).

Theory	Definition	Sources
Credit rationing theory	The credit rationing theory suggests that the providers of finance may limit credit to borrowers if they perceive that their projects are uncertain	Miglo (2020)
Decision-making theory	The decision-making theory maintains that individuals ought to behave in a rational manner in risky and uncertain conditions. It posits that the decision-making processes should be based on the adoption and application of logical choices	Hoegen <i>et al.</i> (2018)
Diffusion of innovations theory	The diffusion of innovations theory seeks to explain how, why and at what rate new ideas and technology spread. Diffusion is the process by which an innovation is communicated over time, among the participants in a social system	Bento <i>et al.</i> (2019), Prezenza <i>et al.</i> (2019), Rogers (2003), Yang and Lee (2019), Yang <i>et al.</i> (2016)
Flexibility theory	The flexibility theory suggests that firms preserve debt capacity or hold back on issuing debt because they want to maintain flexibility. This theory maintains that firms with a lot of potential investment and growth opportunities should have a lower debt/equity ratio	Miglo (2020)
Game theory	The game theory is intended to conceive optimal decisions in a competitive environment. It provides tools that are used to analyze situations in which parties, called players, make decisions that are interdependent	Jiménez-Jiménez <i>et al.</i> (2021)
Goal attainment theory	The goal attainment theory (GAT) includes a human process of interactions that can lead to transactions and to the attainment of goals (and positive outcomes)	Li <i>et al.</i> (2019)
Human capital theory	The human capital theory suggests that organizations should invest in their employees' attributes, knowledge, skills and competences that are considered useful to improve the quality of their production processes	Hornuf <i>et al.</i> (2018)
Pecking order theory	The pecking order theory (also known as the dominance hierarchy theory) suggests that there is a hierarchy or relative rankings, among social groups	Lin and Wang (2021)
Regulatory focus theory	The regulatory focus theory describes how people engage in self-regulation to achieve their goals. This theory implies that individuals adopt a promotion focus (to attain desired outcomes), or a prevention focus (to avoid undesirable outcomes)	Higgins (1998), Shahab <i>et al.</i> (2021)
Resource-based view theory	The RBV theory suggests that the firms' performance is determined by the resources at their disposal. The way they use their resources could enable them to outperform their rivals and to achieve a competitive advantage	Barney (1986), Lagazio and Querci (2018), Wernerfelt (1984)
Signaling theory	The signaling theory is focused on the communications among two or more parties (individuals or groups). It posits that one of the parties, conveys information (i.e. a signal) to the other parties (i.e. the receivers of the message), who must choose how to interpret the signals that are conveyed to them	Connelly <i>et al.</i> (2011), Kleinert <i>et al.</i> (2020), Lim and Busenitz (2020), Reichenbach and Walther (2021)
Social capital theory	The social capital theory suggests that social networks lead to significant benefits to a society. This theory clarifies that businesses can improve their performance by building strategic alliances and by improving relationships with stakeholders	Coleman (1988), Groza <i>et al.</i> (2020), Zheng <i>et al.</i> (2014)
Social exchange theory	The social exchange theory presumes that two individuals or organizations would be willing to engage in mutually beneficial relationships. This theory suggests that these relationships would usually be based on frequent exchanges of resources or goods, that are supposed to add value to each party	Yang and Koh (2022)
Social responsibility theory	The social responsibility theory suggests that everyone have a responsibility to bear in society. This normative theory posits that individuals and/or organizations are accountable to fulfill their duties and responsibilities. It clarifies that their actions ought to benefit the welfare of society and the environment	Berns <i>et al.</i> (2020), Camilleri (2019a)

Table 1.
Key concepts
and theoretical
underpinnings that
guided researchers
of crowdfunding

(continued)

Theory	Definition	Sources
Stakeholder theory	The stakeholder theory seeks to define the organizations' relationships with different stakeholders including employees, suppliers, local communities, creditors and regulatory authorities, among others. This social theory builds on the RBV of the firm, market-based view as well as on relevant normative theories relating to ethical responsibility, that address social issues in management	Camilleri (2019b), Freeman (1984), Troise and Camilleri (2021), Valančienė and Jegelevičiūtė (2014)
Status quo bias theory	The status quo bias theory (SQBT) suggests that individuals, groups and organizations tend to prefer the current state of affairs, as they are averse to change. The status quo cognitive bias affects their behaviors	Yang and Lee (2019)
Stereotype content theory	The stereotype content theory postulates that individuals are predisposed to assess other persons and groups based on their feelings of trust, connection and warmth. Alternatively, their opinions about others can be based on their impressions of skills, intelligence or competence	Johnson <i>et al.</i> (2018)
Technology acceptance model	The technology acceptance model (TAM) presumes that the individuals' perceived ease of use and their perceived usefulness of technologies are two factors that can determine their intentions to use them	Davis (1989), Rahman <i>et al.</i> (2020)
Theory of planned behavior	The theory of planned behavior (TPB) builds on the theory of reasoned action. It posits that three factors, namely, attitudes toward behaviors, subjective norms (social influences) and perceived behavioral control influence the individuals' intentions to perform behaviors (including using technologies)	Ajzen (1991), Rahman <i>et al.</i> (2020), Shneor and Munim (2019)
Theory of reasoned action	The theory of reasoned action (TRA) suggests that the individuals' behaviors are determined by their intentions to perform behaviors and that these intentions are, in turn, affected by their attitudes toward the behaviors as well as by the subjective norms (social influences) that are imposed by society	Fishbein and Ajzen (1975), Rahman <i>et al.</i> (2020)
Unified theory of acceptance and use of technology	The unified theory of acceptance and use of technology (UTAUT) is a TAM presumes that the individuals' performance expectancy, effort expectancy, social influences and facilitating conditions, would have an effect on their intentions to use technology	Bakri <i>et al.</i> (2021), Venkatesh <i>et al.</i> (2003)
Venture quality theory	The venture quality theory posits that ventures (and investment opportunities) can be evaluated according to specific signals or attributes (like financial potential, intellectual property, partnerships, associated individuals and the management team). These factors are some of the elements that could induce investors to commit financial resources in an equity crowdfunding context	Kim and Hall (2020)
Word-of-mouth theory	The word-of-mouth theory refers to oral communications (about their experiences with products and/or services), between two or more individuals	Kim and Hall (2020)

Table 1.

There were 72 (out of 107 publications in Scopus) that were also included in Web of Sciences' repositories. 44 were featured within the SSCI, 21 were in ESCI, 4 in SCI-EXPANDED and 3 were in both SSCI as well as in SCI-EXPANDED.

3.3 Extraction

This systematic review revealed that 45 contributions were empirical studies (38 were quantitative studies, 6 relied on interviews or focus groups to explore primary data and 1 of them involved a sentiment/content analysis). Moreover, there were 16 reviews/discursive papers, 9 exploratory analyses and 2 case studies.

Table 3 provides a list of contributions on crowdfunding of small businesses and/or startups. It endorses the contributing authors, features the keywords of their manuscripts, clarifies their research questions and describes their methodological approaches.

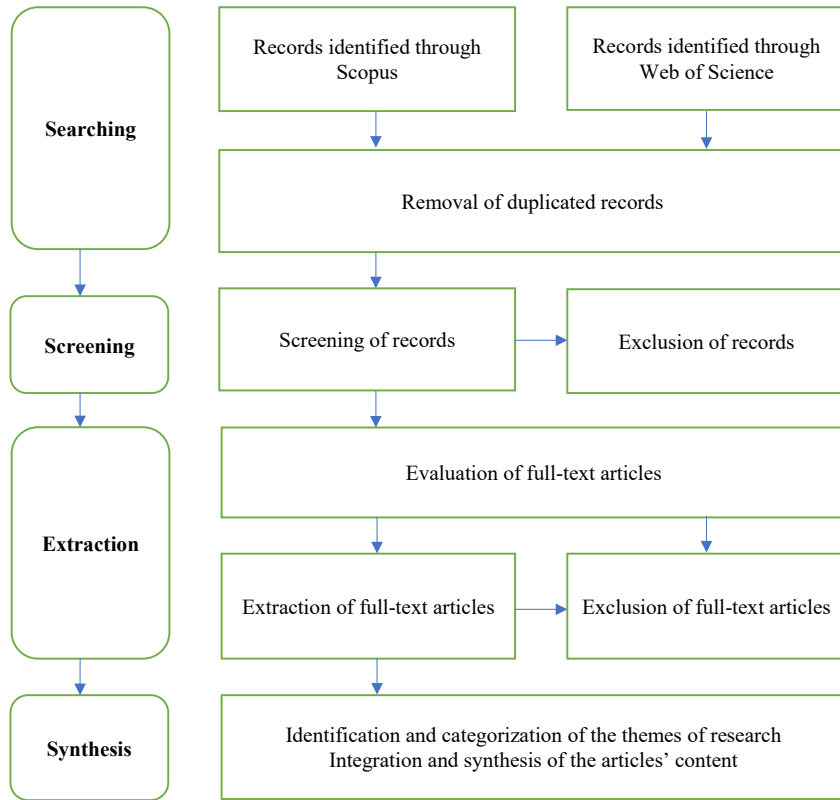


Figure 1.
A PRISMA protocol for systematic analysis

Search criterion	Inclusion	Exclusion
Repository	SCOPUS and Web of Science	Other sources
Publication type	Articles, including experimental, quantitative (survey), qualitative (interviews), reviews (conceptual, content analyses, discursive, meta-analyses)	Books, book series, chapters, conference proceedings, trade publications
Date	2017–2021 (5 years)	
Language	English	Other languages

Table 2.
Inclusion and exclusion criteria for the systematic review

3.4 Synthesis

An inductive approach was used to integrate the findings from the systematic review (on crowdfunding of small businesses and startups). The researchers organized the relevant content from the extracted articles, scrutinized it and identified the themes on this topic. Their bibliographic analysis revealed that crowdfunding (Eiteneyer *et al.*, 2019; Kaminski and Hopp, 2020; Kgoroadira *et al.*, 2019; Paschen, 2017; Di Pietro *et al.*, 2018), crowd sourcing (Chaudhari and Sinha, 2021; Eiteneyer *et al.*, 2019; Foster, 2019; Paoloni *et al.*, 2019; Paschen, 2017), equity crowdfunding (Bonini and Capizzi, 2019; Hornuf and Schwiendbacher, 2017,

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
SSCI	↘	Hornuf and Schwienbacher	2018	<i>Journal of Corporate Finance</i>	Crowd-investing; Entrepreneurial finance; Equity crowdfunding; Investment dynamics; Securities issuance; Startups	This research describes the German equity crowdfunding market and the business model of different portals. The authors formulate hypotheses on various allocation mechanisms, the influence of information and behavioral aspects of crowd-investing	Empirical (Quantitative)
SSCI	↘	Hornuf and Schwienbacher	2017	<i>Small Business Economics</i>	Crowd-investing; Equity crowdfunding; Investor protection; Securities regulation; Small business finance	This research aims to understand how securities' regulations can affect equity crowdfunding in different countries. The authors discuss about exemptions to prospectuses and on registration requirements (for project initiators)	Review/ Discursive
SSCI	↘	Johnson <i>et al.</i>	2018	<i>Journal of Business Venturing</i>	Female entrepreneurs; Gender Bias; Crowdfunding; Cognitive stereotypes	This research relies on social-psychology theorizing - specifically on the stereotype content model (SCM) - to explore an unanticipated female advantage in informal funding markets	Empirical (Quantitative)
SSCI	↘	Paschen	2017	<i>Business Horizons</i>	Crowdfunding; Startup funding; Crowdsourcing; Crowd capital; Information asymmetry; Crowd communication; Startup strategy	This research presents a framework that describes the startup's crowdfunding life cycle. It also provides practical advice on crowdfunding best practices	Review/ Discursive
SSCI	↘	Brown <i>et al.</i>	2017	<i>Business Horizons</i>	Crowdfunding; Crowdsourcing; Branding strategy; Relationship marketing; Social entrepreneurship	This research examines the extent to which crowdfunding websites are accessible to organizations. The authors discuss on these marketing channels	Review/ Discursive
SSCI	↘	Hornuf <i>et al.</i>	2018	<i>Corporate Governance: An International Review</i>	Corporate governance; Equity crowdfunding; Follow-up funding; Firm survival	This study investigates the determinants of follow-up fundings and elaborate on firm failures - after an equity crowdfunding campaign has taken place	Empirical (Quantitative)
SSCI	↘	Di Pietro <i>et al.</i>	2018	<i>California Management Review</i>	Open innovation; Startups; Crowdfunding; Performance; Professional investors; Knowledge; Networks	This article identifies the type of inputs provided by equity investors. It clarifies how these inputs are related to startups and founders' characteristics	Empirical (Qualitative)

(continued)

Table 3.
A nonexhaustive list
of articles on
crowdfunding of small
businesses and
startups (sorted from
highest to lowest
citations)

Table 3.

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
SSCI	✓	Kgoroeadira <i>et al.</i>	2019	<i>Small Business Economics</i>	Loan crowdfunding; Small business; Creditworthiness; Credit risk; Information asymmetries; P2P lending websites	This research examines an American online, peer-to-peer (P2P) loan crowdfunding website. It explores whether this innovation makes any difference to the recipients of finance	Empirical (Quantitative)
SSCI	✓	Hoegen <i>et al.</i>	2018	<i>Electronic Markets</i>	Crowdfunding; Decision-making in crowdfunding; types of crowdfunding	This research examines 68 articles to better understand relevant influence factors relating to crowdfunding investment decisions	Review/ Discursive
SSCI	✓	Eiteneyer <i>et al.</i>	2019	<i>Research Policy</i>	Crowdfunding; Co-creation; Digitization; Open innovation; Social capital; Startups	This research explores how community-derived social capital influences the ventures' approach to engaging backers in new product development. The researchers clarify how this, in turn, advances product innovativeness	Empirical (Quantitative)
SSCI	✓	Block <i>et al.</i>	2021	<i>Small Business Economics</i>	Finance markets; crowdfunding; initial coin offerings	This editorial article is focused on crowdfunding and on initial coin offerings (relating to the entrepreneurial finance market)	Review/ Discursive
SSCI	✓	Hervé and Schwienbacher	2018	<i>Journal of Economic Surveys</i>	Crowdfunding; Entrepreneurial finance; Innovation	This research explores the literature that links crowdfunding with entrepreneurial innovation	Review/ Discursive
SSCI	✓	Berns <i>et al.</i>	2020	<i>Journal of Business Ethics</i>	Prosocial crowdfunding; Social responsibility; Ethical lending	This research uses a social responsibility lens to examine whether crowd-funders on a lending-based prosocial platform (Kiva) lend their money based on altruistic or strategic motives	Empirical (Quantitative)
SSCI	✓	Mamonov <i>et al.</i>	2017	<i>Venture Capital</i>	Equity crowdfunding; JOBS act; Title II; Real estate	This research explores how Title II crowdfunding fits into the larger crowdfunding landscape. The authors seek to understand the types of business ventures that have been successful in raising capital under Title II.	Exploratory analysis/ Descriptive

(continued)

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
SSCI	✓	Bonini and Capizzi	2019	<i>Venture Capital</i>	Venture capital; Business angels; Equity crowdfunding; Startup financing	This paper reviews the main features, investment policies and risk-return profiles of institutional and informal investors (those operating in the very early stage of the life cycle of entrepreneurial firms)	Review/ Discursive
SSCI	✓	Kaminski and Hopp	2020	<i>Small Business Economics</i>	Startups; Crowdfunding; Pitch; Machine learning; Neural network; Natural language processing	This paper introduces a neural network and natural language processing approach to predict the outcome of crowdfunding startup pitches by using text, speech and video metadata in 20,188 crowdfunding campaigns	Empirical (Qualitative)
SSCI	✓	Gupta and Bose	2019	<i>Technological Forecasting and Social Change</i>	Business model transformation; Crowdfunding; Digital business model; Market pioneering; Strategic learning; Wishberry	This research investigates how digital ventures gain strategic knowledge for the successful transformation of business models. The researchers investigate Wishberry, an online crowdfunding startup in India	Case study
ESCI	✓	Polena and Regner	2018	<i>Games</i>	Crowdfunding; Peer-to-peer lending; P2P; Credit grade; FICO score; Default risk	This research explores the factors that can affect the borrowers' default in P2P lending. The researchers rely on a new data set consisting of 70,673 loan observations from the Lending Club	Empirical (Quantitative)
ESCI	✓	Cox and Nguyen	2018	<i>Journal of Small Business and Enterprise Development</i>	Entrepreneurial finance; Small business; Financial sources; Reward-based crowdfunding	This research investigates the extent to which rewards-based crowdfunding could provide financial support for start-ups and small businesses	Empirical (Quantitative)
SSCI	✓	Li and Wang	2019	<i>Journal of Management Information Systems</i>	Reward-based crowdfunding; Prosocial motivation; Economic motivation; Goal proximity; Uncertainty; Public goods; Private goods; Fundraising	This study provides a better understanding of backer motivations by empirically investigating their attitudes during different stages of the funded projects	Empirical (Quantitative)
SSCI	✓	Groza et al.	2020	<i>Journal of Business Research</i>	Crowdfunding; Entrepreneurship; Innovation; Startups; Social capital; Female empowerment	This study integrates social capital theory along with the theory of choice homophily to better understand the motivating factors of male and female investors	Empirical (Quantitative)

(continued)

Table 3.

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
SSCI	✓	Schwienbacher	2019	<i>Venture Capital</i>	Crowdfunding; Entrepreneurial finance; Fintech; Equity finance	This article reviews achievements that were made in the last 10 years since the emergence of crowdfunding. The author identifies important challenges	Review/ Discursive
ESCI	✓	Malaga et al.	2018	<i>International Journal of Gender and Entrepreneurship</i>	Women entrepreneurship; Equity crowdfunding	This research explores whether Title II equity crowdfunding represents an opportunity for women-owned companies to raise their capital requirements (at rates similar to companies owned by men)	Exploratory analysis/ Descriptive
SSCI	✓	Kgoroadira et al.	2019	<i>Finance a User - Czech Journal of Economics and Finance</i>	Crowdfunding; Entrepreneurship; Startups; Information; Innovation	This research focuses on reward-based crowdfunding and identifies the basic determinants of successful crowdfunding campaigns	Empirical (Quantitative)
SSCI	✓	Kim and Hall	2020	<i>Current Issues in Tourism</i>	Tourism investment; Venture quality theory; Uncertainty theory; Word-of-mouth theory; Reparticipation; Visitor economy	This study develops and tests an inclusive and integrated theoretical framework on the concepts of venture quality, uncertainty level, participation, word-of-mouth and reparticipation in tourism investment crowdfunding	Empirical (Quantitative)
SSCI	✓	Lim and Busenitz	2020	<i>Journal of Small Business Management</i>	Equity crowdfunding; Entrepreneurial teams; Signaling; Human capital characteristics	This research explores the importance and detrimental impact of specific human capital characteristics on funding	Empirical (Quantitative)
SSCI	✓	Li et al.	2019	<i>Sustainability (Switzerland)</i>	Crowdfunding; Cost-benefit framework; Purchase intention; Perceived net goal attainment; Innovation	The research relied on the GAT to explore the consumers' intentions to use crowdfunding	Empirical (Quantitative)
SSCI	✓	Johan and Zhang	2021	<i>Journal of Technology Transfer</i>	Equity crowdfunding; Industry effect; Business valuation	This research investigates startup characteristics and clarifies how they influence business valuations of representative industries in equity crowdfunding	Exploratory analysis/ Descriptive
SSCI	✓	Cumming et al.	2020	<i>Entrepreneurship: Theory and Practice</i>	Hypothetical bias; Voting; Trust; Equity crowdfunding	This research explores what motivates individuals to withdraw from their initial commitment to invest through crowdfunding	Empirical (Quantitative)

(continued)

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
SSCI	✓	Yang and Lee	2019	<i>Human Factors and Ergonomics in Manufacturing</i>	Crowdfunding, Innovation adoption, SQBT, Two-factor theory	This study investigates the enablers and inhibitors of crowdfunding from the perspective of startups by employing the two-factor theory, SQBT, and innovation diffusion theory (IDT)	Empirical (Quantitative)
SSCI	✓	Tiberius and Hauptmeier	2021	<i>Journal of Small Business Management</i>	Equity crowdfunding; Entrepreneurial finance; Regulation; Small business; Startup funding	This research explores the development of equity crowdfunding (ECF) through an international Delphi study	Empirical (Qualitative)
SSCI	✓	Moro-Visconti <i>et al.</i>	2020	<i>Sustainability (Switzerland)</i>	Financial innovation; Value chains; Scalability; Digital platforms; Financial ecosystem; Discounted cash flows; Market value; Sustainable Development Goals	This research analyzes the differences between Fin Techs and traditional banks in market valuation. It explores the potential of digital interaction and cross-pollination of complementary business models	Exploratory analysis/ Descriptive
ESCI	✓	Subramanian	2020	<i>Managerial Finance</i>	Financial instruments, Blockchain, Smart contracts, SAFE instrument, Security tokens, Utility maximization	This research describes the security token architecture as an application of smart contracts. The author illustrates the implementation and design of a commonly used financial instrument that is known as simple agreement for future equity (SAFE)	Exploratory analysis/ Descriptive
ESCI	✓	Cheong <i>et al.</i>	2020	<i>International Journal of Managerial Finance</i>	Small business, Credit access, Tax structure, Firm performance, Entrepreneurship	This study investigates the effects of credit access and tax structures on the performance of manufacturing small and medium sized enterprises (SMEs) in Malaysia	Empirical (Quantitative)
SSCI	✓	Foster	2019	<i>Information Economics and Policy</i>	Crowdfunding; New ventures; Entrepreneurial finance; Startups	This research uses daily panel data to study the effects that entrepreneurs' social networks have on the success of their crowdfunding projects	Empirical (Quantitative)
ESCI	✓	Paoloni <i>et al.</i>	2019	<i>VINE Journal of Information and Knowledge Management Systems</i>	SME, Crowdfunding, Startups	This research analyzes the effects of crowdfunding on sma- and medium-sized enterprises (SMEs) and on startups firms	Review/ Discursive

(continued)

Table 3.

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
SSCI and SCI-EXPANDED	✓	Gan <i>et al.</i>	2021	<i>Management Science</i>	Asset tokenization; Blockchain; Crowdfunding; Cryptocurrency; Initial coin offerings; ICOs; Moral hazard; Security token offerings; STOs; Speculators; Tokenized inventory	This paper investigates whether asset tokenization a viable means to finance start-ups. The researchers describe different type of tokens	Exploratory analysis/ Descriptive
SSCI	✓	Hartlow	2021	<i>Digital Journalism</i>	Crowdfunding; Entrepreneurial journalism; Latin America; News audience; Online news	This study investigates perceptions about crowdfunding journalism in seven Latin American countries	Empirical (Quantitative)
SSCI	✓	Giudici and Agstner	2019	<i>European Business Organization Law Review</i>	Company law; Innovative startups; Private companies; Close corporations; Freedom of contract; Venture capital; Business angels; Crowdfunding; Financing SMEs; Regulatory competition	This research analyzes the Italian company law that is intended to promote startup creation	Review/ Discursive
SSCI	✓	Goethner <i>et al.</i>	2021	<i>Technological Forecasting and Social Change</i>	Equity crowdfunding; Crowd-investing; Investor protection	This research explores how the Small Investor Protection Act is affecting the investors' behaviors at 'Companisto', Germany's largest ECF portal for startup firms	Exploratory analysis/ Descriptive
SSCI	✓	Lazzaro and Noonan	2021	<i>International Journal of Cultural Policy</i>	Funding for the arts and culture; reward-based and donation-based crowdfunding; comparative analysis of regulation policy; United States; European Union	This research assesses the benefits and barriers of crowdfunding. The authors analyze regulatory markets in the United States and within the European Union	Review/ Discursive
ESCI	✓	Hashemi Joo <i>et al.</i>	2020	<i>Managerial Finance</i>	Crowdfunding; Blockchain; Cryptocurrency; Initial coin offering (ICO)	This research recognizes the benefits of the initial coin offering (ICO) as a way of raising funds. It presents a detailed comparison between the ICO and initial public offering to clarify the future possibilities of this new funding method	Review/ Discursive
ESCI	✓	Hendratni <i>et al.</i>	2020	<i>Journal of Islamic Marketing</i>	Crowdfunding; Startup; Startup companies; Islamic crowdfunding; Website platform	This study provides an Islamic crowdfunding model that is based on a website platform for startup companies	Empirical (Qualitative)
ESCI	✓	Teberga and Oliva	2018	<i>Benchmarking</i>	Risk management; Crowdfunding; Start-up; Emerging market; Startup; New technologies	This research discusses about the risks of using 'Catarse', the biggest crowdfunding site in Latin America	Empirical (Qualitative)

(continued)

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
SSCI	✓	Saura <i>et al.</i>	2021	<i>Journal of Theoretical and Applied Electronic Commerce Research</i>	Startups' opportunities; User-generated content; Sentiment analysis; Electronic commerce	This research identifies opportunities for investors of Indian startups. The authors describe key indicators that characterize the startup ecosystem in India	Empirical (Sentiment Analysis)
SSCI	✓	Feola <i>et al.</i>	2021	<i>Small Business Economics</i>	Equity; Digital investors; New venture	This study segments the Italian equity crowdfunding investors' market by means of a cluster analysis. It explores the differences between segments	Empirical (Quantitative)
ESCI	✓	Chaudhari and Sinha	2021	<i>International Journal of Innovation Science</i>	Big data; Startup; Crowdfunding; Shared economy	This paper investigates the trends that are driving the growth of the Indian startup ecosystem	Empirical (Quantitative)
ESCI	✓	Rahman <i>et al.</i>	2020	<i>ISRA International Journal of Islamic Finance</i>	Structural equation modeling (SEM); Malaysian entrepreneurship; Shari'ah-compliant equity-based crowdfunding (SEC); Theory of reasoned action (TRA)	This research develops a framework for Shariah-compliant equity-based crowdfunding (SEC) for entrepreneurship development in Malaysia	Empirical (Quantitative)
SSCI	✓	Klemert <i>et al.</i>	2020	<i>Small Business Economics</i>	Startups' opportunities; User-generated content; Sentiment analysis; Electronic commerce	This research uses the signaling theory to explore the effects of prior financing on firm quality	Empirical (Quantitative)
SSCI	✓	Lee	2019	<i>Journal of Corporate Law Studies</i>	Equity crowdfunding; crowdfunding risks; investor protection; FinTech; financial law reform	This research focuses on the current state of equity crowdfunding in Hong Kong. It also describes the legal requirements for equity crowdfunding in other markets	Review/ Discursive
ESCI	✓	Roedenbeck and Lieb	2018	<i>Journal of Research in Marketing and Entrepreneurship</i>	Entrepreneurship; Case studies; Crowdfunding; Board game, Kickstarter; Tabletop	This research investigates how a small business could use crowdfunding within and after their successful transformation	Case Study
ESCI	✓	Cox and Nguyen	2018	<i>Journal of Accounting and Organizational Change</i>	Equity; Innovation; Motivation; Crowdfunding; Debt; Rewards	This paper examines the differences between rewards-based crowdfunding and P2P crowdfunding	Review/ Discursive
SCI-EXPANDED	✓	Zhao <i>et al.</i>	2018	<i>Wireless Personal Communications</i>	Entrepreneurial motivation; Extrinsic rewards motivation; Intrinsic rewards motivation; Motivation of taking social responsibility; Crowdfunding success	The research studies the relationship between entrepreneurial motivation and crowdfunding success	Empirical (Quantitative)
ESCI	✓	Miglo	2020	<i>Administrative Sciences</i>	Entrepreneurial finance in Canada; Small business financing; Capital structure; Crowdfunding	This article analyzes the financing of entrepreneurial firms in Canada. The author discusses about crowdfunding ideas/theories and presents his empirical evidence	Empirical (Quantitative)

(continued)

Table 3.

Table 3.

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
ESCI	✓	Shang <i>et al.</i>	2020	<i>Chinese Economy</i>	China; Crowdfunding; Finance performance; Product innovation; Venture investor	This study investigates the impact of monitoring venture investors' crowdfunding projects on product innovation performance (in follow-up projects)	Empirical (Quantitative)
SSCI	✓	Theokary <i>et al.</i>	2020	<i>Journal of Small Business Management</i>	Marketing; Small business/small and medium enterprises; Entrepreneurship; Partnerships; Crowdfunding	This research examines how the choice of a crowdfunding partner could influence the fundraising outcomes of a project	Empirical (Quantitative)
SSCI	✓	Fortezza <i>et al.</i>	2021	<i>Journal of Business and Industrial Marketing</i>	Start-ups, Business network, Serial crowdfunding, ARA model	This research offers a thorough view on the dynamic processes characterizing the participation of start-ups in more than one crowdfunding campaign	Empirical (Qualitative)
SSCI	✓	Reichenbach and Walther	2021	<i>Financial Innovation</i>	Equity-based crowdfunding, Post-offering success, Startup failure, Signaling, Startups, Updates	This study investigates signal validity in equity-based crowdfunding. The authors explore whether signals could increase crowd participation and if they are associated with higher post-offering success	Empirical (Quantitative)
SCI-EXPANDED	✓	Jiménez-Jiménez <i>et al.</i>	2021	<i>Mathematics</i>	Asymmetric information; Game theory; Signaling; Price discrimination; Conditional process analysis; Entrepreneurship; Rewards-based crowdfunding	This research investigates rewards-based crowdfunding as an innovative financing opportunity for startups and firms	Empirical (Quantitative)
SCI-EXPANDED	✓	Aggarwal <i>et al.</i>	2021	<i>Production and Operations Management</i>	Crowdfunding; Paired comparisons; Startup valuation	This research puts forward a Bayesian model that assesses investors' evaluation skills. The authors identify exemplary lead investors	Empirical (Quantitative)
SCI-EXPANDED	✓	Lin and Wang	2021	<i>Mathematics</i>	Network decision support model; Crowdfunding; POT theory; External equity financing; Analytic network process; Start-ups	This study explores how start-ups can make the optimal evaluations among different external equity crowdfunding solutions and how they could establish a network decision support model	Empirical (Quantitative)

(continued)

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
SSCI	✓	Bakri <i>et al.</i>	2021	<i>Estudios de-Economia Aplicada</i>	Crowdfunding, Retailers, Technology Acceptance	This research identifies the factors that could influence the retailers' intentions to source funds through crowdfunding platforms. This research relied on the UTAUT model to determine the retailers' intentions to use crowdfunding technologies	Empirical (Quantitative)
ESCI	✓	Moirangthem and Nag	2021	<i>Asian Journal of Management Cases</i>	Entrepreneurial finance, Startup, Value-added activities, Venture capital	This research sheds light on venture capital firms including Tiger Global, Accel Partners and DST Global that provided finance to Flipkart, an Indian e-commerce firm	Review/ Discursive
ESCI	✓	Ko and Ko	2021	<i>Journal of Global Fashion Marketing</i>	Fashion crowdfunding; Reward crowdfunding; Fashion startups; Success factors; South Korea	This study explores the success factors of fashion-related crowdfunding projects The authors evaluate their performance (through pledged-funding ratios)	Empirical (Quantitative)
ESCI	✓	Zabolotnikova <i>et al.</i>	2020	<i>Entrepreneurship and Sustainability Issues</i>	Investments; Financing; Financial resources; Credit, Financial services market; Small businesses	This research explores alternative sources for the financing of small and medium-sized business projects in Kazakhstan	Empirical (Quantitative)
SSCI and SCI-EXPANDED	✓	Garaus <i>et al.</i>	2020	<i>IEEE Transactions on Engineering Management Review of Behavioral Finance</i>	Crowdsourcing, Entrepreneurship, Technological innovation, Venture capital	This study sheds light on the crowd equity investors' post-investment activities	Empirical (Quantitative)
ESCI	✓	Smirnova <i>et al.</i>	2020	<i>Review of Behavioral Finance</i>	Crowdfunding; Securities design; Financial markets	This study investigates key success factors of crowdfunding investments. The authors explore the designs of their securities, crowdfunding settings, their campaigns, etc.	Empirical (Quantitative)
ESCI	✓	Mourao <i>et al.</i>	2018	<i>International Journal of Financial Studies</i>	Crowdfunding; Crowdsourcing; Networking	This paper describes the success factors of crowdfunding projects. The authors discuss about 'Kickante', an important crowdfunding Brazilian platform	Exploratory analysis/ Descriptive
SSCI and SCI-EXPANDED	✓	Yan <i>et al.</i>	2018	<i>Sustainability (Switzerland)</i>	Venture capital; Cultural distance; Uncertainty; Crowdfunding; Online finance; Green finance	This study explores the project initiators' backgrounds and experiences with crowdfunding financing effects	Empirical (Quantitative)

(continued)

Table 3.

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
SSCI	✓	Carvajal <i>et al.</i>	2018	<i>Journal of Economic Theory</i>	Information disclosure; Information design; Value of information; Financial regulation; Crowdfunding; Initial public offerings	This research sheds light on a firm that uses crowdfunding to raise finance for its research and development phase of a project	Exploratory analysis/ Descriptive
ESCI	✓	Shengfen	2018	<i>China Nonprofit Review</i>	Social enterprise; Venture philanthropy; Social impact investment; Social impact bond; Crowdfunding	This study focuses on four funding strategies including venture philanthropy; social impact investment, social impact bonds and crowdfunding	Empirical (Quantitative)
SSCI	✓	Cohen	2017	<i>Administrative Law Review</i>	Crowdfunding; Securitizations of subprime mortgages; US securities and exchange commission; Jumpstart our businesses startups act; JOBS Act	This research critically evaluates the strengths and weaknesses of the United States' Securities and Exchange Commission (SEC) "Jumpstart Our Business Startups" (JOBS) Act	Review/ Discursive

Note(s): These articles were published during a 5-year period between 2017 and 2021. They were sorted from highest to lowest number of citations. A FICO score is a credit score created by the Fair Isaac Corporation (FICO). Financial institutions and lenders use this as a guide to determine how much credit they can offer a borrower and at what interest rate. FICO scores can range from 300 to 850, the higher the number the better

2018; Tiberius and Hauptmeijer, 2021) as well as crowd investing/crowd-investing (Ezangina and Evstratov, 2019; Goethner *et al.*, 2021; Hornuf and Schwienbacher, 2017, 2018) were the most used keywords by the authors that were featured in this analysis.

Evidently, previous contributions examined various aspects relating to (i) the demand for crowdfunding products and/or, to (ii) the supply of crowdfunding finance. The following sections critically appraise two sides of the same coin. The researchers elaborate on the extant literature that is focused on crowdsourcing as well as on crowd-investing.

3.4.1 The use of crowdfunding platforms to raise capital requirements. Previous research confirmed that small businesses and startups experience difficulties in raising modest amounts of capital (Lazzaro and Noonan, 2021; Schwienbacher, 2019). External threats from the marketing environment including the state of the economy, government regulations, tax laws, labor legislation and fluctuations in interest rates, among other issues, could have devastating effects on such entities (Bonini and Capizzi, 2019). As a result, they may find themselves in an equity gap, if they cannot raise finance to foster innovation for their business (Hoegen *et al.*, 2018). Their access to equity or debt financing through traditional institutions like banks and/or other financial service providers is usually very limited (Camilleri, 2018a; Boylan *et al.*, 2018). Typically, they are required to provide a collateral to obtain finance, even though, young enterprises and startups with promising opportunities for potential investment may usually prefer having a lower debt/equity ratio (Camilleri and Valeri, 2021; Miglo, 2020).

In the past decade, a number of individuals, groups, organizations as well as entrepreneurs and startups resorted to crowdfunding, to finance their ideas, ventures or projects (Mollick, 2014; Troise *et al.*, 2020). Various researchers focused on specific crowdfunding products like donation-based crowdfunding (Lazzaro and Noonan, 2021), rewards-based crowdfunding (Boylan *et al.*, 2018; Cox and Nguyen, 2018; Jiménez-Jiménez *et al.*, 2021; Zhao *et al.*, 2018), equity crowdfunding (Bonini and Capizzi, 2019; Feola *et al.*, 2021; Goethner *et al.*, 2021; Hornuf and Schwienbacher, 2017, 2018; Hornuf *et al.*, 2018; Lee, 2019; Lin and Wang, 2021; Mamonov *et al.*, 2017), P2P lending/lending crowdfunding (Boylan *et al.*, 2018; Kgoroadira *et al.*, 2019; Polena and Regner, 2018) and debt-securities crowdfunding (Boylan *et al.*, 2018; Cox and Nguyen, 2018; Gan *et al.*, 2021; Subramanian, 2020), among other investment opportunities.

In many cases, these authors described the differences between these sources of capital. For instance, Kgoroadira *et al.* (2019) explained that P2P lending is very similar to traditional borrowing from a bank as crowd investors lend money to a company with the understanding that they will be repaid with interest. Hornuf and Schwienbacher (2018) contended that equity crowdfunding projects may usually involve the sale of a stake of a business to a number of investors. This type of crowdfunding is very similar to venture capital finance. Conversely, individuals may be drawn to rewards-based crowdfunding to receive nonfinancial rewards, such as goods or services, in exchange of their contributions (Cox and Nguyen, 2018). Alternatively, they may be willing to donate their funds for charitable, humanitarian or philanthropic purposes, without expecting any financial returns (Camilleri, 2022a; Lazzaro and Noonan, 2021).

Various researchers discussed on the pros and cons of using crowdfunding platforms (Presenza *et al.*, 2019; Yang and Lee, 2019). Very often, they noted that the project initiators of successful crowdfunding campaigns were capable of communicating their business propositions and solutions, as they raised awareness on disruptive innovations among large audiences through the digital media (Eiteneyer *et al.*, 2019; Kim and Hall, 2020; Paschen, 2017).

This is congruent with the diffusion of innovations theory as project initiators (e.g. small businesses or startups) utilize online crowdfunding platforms to diffuse a new idea, including the innovation itself, among possible investors (Kleinert *et al.*, 2020; Lim and Busenitz, 2020;

Reichenbach and Walther, 2021; Rogers, 2003). Crowdfunding systems allow creators to promote their projects to generate interest and to ultimately lure investors (Yang and Lee, 2019; Yang *et al.*, 2016). Notwithstanding, project initiators as well as crowdfunding investors are affected by various communication channels, including by competing organizations and regulatory institutions (Hornuf and Schwienbacher, 2017; Tiberius and Hauptmeijer, 2021; Carvajal *et al.*, 2018).

The subjective norms in society can influence the individuals' intentions to use innovations like crowdfunding platforms (Shneor and Munim, 2019; Rahman *et al.*, 2020). The crowdfunding projects could attract the attention of competitors, who may be quicker to develop technological innovations or substitute products, as they could have access to financial capital, economies of scale and scope, to mimic small businesses' and start-ups' ideas (Giudici and Agstner, 2019).

Debatably, this argumentation is synonymous with the RBV theory. New businesses like startups, as well as small businesses may usually possess fewer resources including liquidity, than established businesses (Camilleri and Valeri, 2021; Elia *et al.*, 2021). They may also have access to limited competences and capabilities. They may not be considered as legitimate, as their larger counterparts by their stakeholders, including by the government, creditors, venture capitalists and other investors (Valančienė and Jegelevičiūtė, 2014).

However, in the past decade, a number of regulatory institutions have introduced legislation in various contexts (like Jumpstart Our Business Startups – JOBS Act, among others) (Cohen, 2017; Hornuf and Schwienbacher, 2017; Mamonov *et al.*, 2017). These laws and the revisions that followed were intended to support early-stage companies and startups, to raise their financial requirements through crowdfunding avenues.

Crowdfunding allows for the democratization of funding, as it is essentially borderless and not geographically constrained (Josefy *et al.*, 2017; Mollick and Robb, 2016). Businesses, enterprises and startups can use crowdfunding platforms to raise funds for their projects. They can appeal to larger audiences through the digital media.

Project initiators are encouraged to engage with online investors through crowdfunding platforms, to provide feedback relating to products or services, in order to increase their chances of reaching their financial goals (Shahab *et al.*, 2021). Ultimately, it is in their interest to disseminate relevant content to project backers for transparency purposes (Camilleri, 2015, 2022b), and to improve their credentials with stakeholders.

3.4.2 Investments in crowd funding products. Generally, crowdfunding links the creators/proponents of projects with potential investors (Goethner *et al.*, 2021; Hornuf and Schwienbacher, 2017). The latter ones could avail of crowdfunding digital platforms to reduce their search and transaction costs. These online users hope to identify lucrative investment opportunities that could yield them attractive returns. Such investors may be drawn by high-quality, market-oriented (commercial) projects and by their rewards (Jiménez-Jiménez *et al.*, 2021), as opposed to community-oriented, not-for-profit projects with social or environmental purposes (Camilleri, 2021).

Project initiators of commercial entities may be wary of providing details of their intellectual properties (particularly during the early stages of their crowdfunding campaigns), as they may be concerned that someone could steal their ideas, innovations and projects (Kim and Hall, 2020). They could decide not to disclose material information like historic defaults or hidden costs, even after the investor becomes a member of the crowdfunding platform (Carvajal *et al.*, 2018; Kleinert *et al.*, 2020; Lim and Busenitz, 2020; Reichenbach and Walther, 2021).

As a result, investors of crowdfunded projects may not always have adequate and sufficient information on the borrowers of finance, as crowdfunding platforms may not exercise thorough due diligence on their users (Paschen, 2017). This argument is related to the reasoning behind the signaling theory. In fact, many researchers relied on this theory to

explore the signals that are communicated by project creators to lure investments from crowd funders (Kleinert *et al.*, 2020; Lim and Busenitz, 2020; Reichenbach and Walther, 2021).

Notwithstanding, the most popular digital (crowdfunding) platforms may or may not operate from the same jurisdiction of the crowd-investors (Harlow, 2021; Hornuf and Schwienbacher, 2017). Hence, they are not always offering complete protection according to local legislation and regulations. Thus, they could not guarantee the same level of comprehensive appraisals that are provided by local financial service providers. This contentious issue could lead to problems related to information asymmetry (Kgoroadira *et al.*, 2019; Kleinert *et al.*, 2020; Paschen, 2017). In some circumstances, the failure to disclose material information to crowd-investors may result in near-fraudulent consequences (Hornuf *et al.*, 2018).

Investors may usually try to find a tradeoff between risks and rewards from crowdfunding opportunities (Hoegen *et al.*, 2018). They could be attracted by (higher than normal) potential returns that certain crowd-funding activities claim to offer (Reichenbach and Walther, 2021). Therefore, they ought to be cautious and vigilant on their possible risks of default (Polena and Regner, 2018).

If equity crowdfunded projects fail, investors could not be in a position to pay back capitals and to provide returns to their investors. Similarly, the investors of P2P crowdfunding/lending may also risk losing their funds through unsecured loans, especially if the borrowers did not require any collateral (Boylan *et al.*, 2018; Kgoroadira *et al.*, 2019; Polena and Regner, 2018). The investors of equity financing may encounter other possible contingencies, other than default (Hoegen *et al.*, 2018). They can find out that there is no lucrative secondary market for their shares (Garaus *et al.*, 2020). Hence, they might find themselves liquidating their assets, at a significant loss, or of diluting their stock value.

4. Conclusions

This contribution has presented the findings from a rigorous systematic analysis of academic articles that were published during the past 5 years, between January 2017 and December 2021. The researchers appraised them and shed light on their underlying research questions, described the methodology that was used to capture and analyze the data, and featured the keywords that were associated with the articles' content.

Afterwards, they synthesized the findings from the extracted contributions, and discussed about the benefits and costs of using crowdfunding platforms to raise finance, or as plausible investment options. The authors elaborated about various challenges and discussed about the opportunities for project initiators (like small business and startups) as well as for crowd-investors.

This research reported that, currently, there are just a few articles that were linking this timely topic with key theoretical underpinnings relating to technology adoption and/or innovation management (e.g. diffusion of innovations theory, TAM, TPB, TRA or UTAUT), strategic management (e.g. decision-making Theory; GAT or RBV), accounting and financial reporting (E.g. signaling theory or venture quality theory), and normative/business ethics research (e.g. social capital theory, social responsibility theory and stakeholder theory), among others.

The results confirmed that, for the time being, there are limited discursive review papers on crowdfunding of small businesses and startups. This contribution sought to address this gap in the academic literature. It identifies the facilitators and barriers of using crowdfunding platforms for crowd sourcing and/or for crowd investing purposes, to better understand the demand/supply of crowdfunding.

This systematic analysis was focused on "crowdfunding" and "small business(es)" or "startup(s)". In future, other researchers may explore the crowd sourcing/investing

opportunities in different types of businesses including sole proprietorships, partnerships, limited partnerships, limited liability companies (LLCs), nonprofits and cooperatives (co-ops), among other entities. They may categorize enterprises, according to their staff count. Prospective authors could investigate the financing of micro enterprises, SMEs, intermediate-sized enterprises and/or large-sized enterprises. Moreover, they could even distinguish among various start-ups like small business startups, scalable startups, buyable startups and/or off-shoot startups, etc. Therefore, further research may consider using these keywords in their bibliographic studies.

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Further reading

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