

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

By Mark Anthony Camilleri¹ ² and Stefano Bresciani³

This is a prepublication version.

Suggested citation: Camilleri, M.A. & Bresciani, S. (2022). Crowdfunding small businesses and startups: A systematic review, an appraisal of theoretical insights and future research directions, *European Journal of Innovation Management*, <https://doi.org/10.1108/EJIM-02-2022-0060>

Purpose: This contribution evaluates 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 or crowd-investing purposes.

Method: The researchers adopt PRISMA's 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 the implications of this contribution 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 potential rewards and a number of risks that are associated with crowd-financing.

Originality: 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 crowdfunding/crowdsourcing and crowd-investing.

Keywords: crowdfunding; crowd sourcing; crowd-investing; resource-based view, diffusion of innovations, signaling theory.

¹ Department of Corporate Communication, Faculty of Media and Knowledge Sciences, University of Malta, Malta. Email: mark.a.camilleri@um.edu.mt

² The Business School, University of Edinburgh, Scotland.

³ Department of Management, University of Turin, Italy.

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 number of investors, in return for products or equity stakes (Belleflamme *et al.*, 2015; Camilleri, 2021a; 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 pre-set 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 are “disintermediating” traditional distribution channels by connecting online users directly with project initiators (Vismara, 2016). They serve as "network orchestrators" as they curate the offerings they receive (Bruton, Khavul, Siegel and Wright, 2015; Vrontis, Christofi, Battisti and Graziano, 2020). 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, socially and environmentally responsible projects.

The crowd-investors would usually put their money in those projects in which they believe or hold lucrative potential. They may be considered as shareholders if they provide capital finance, thereby contributing to the development and growth of crowdfunded projects. 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, 2022; 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; Shneor and Munim, 2019) and to the diffusion of innovations (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 as well as 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 / cons

of crowdfunding products and elaborate on the demand for / supply of crowdfunding investments. Their argumentation is based on key theoretical insights including those related to the resource-based view, 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).

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

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).
	The diffusion of innovations theory seeks to explain how, why, and at what rate	(Bento <i>et al.</i> , 2019; Presenza <i>et al.</i> , 2019; Rogers, 2003;

Diffusion of innovations theory	new ideas and technology spread. Diffusion is the process by which an innovation is communicated over time, among the participants in a social system.	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 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	<p>The resource-based view theory (RBV) 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.</p>	<p>(Barney, 1986; Lagazio and Querci, 2018; Wernerfelt, 1984).</p>
Signaling theory	<p>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.</p>	<p>(Connelly <i>et al.</i>, 2011; Kleinert <i>et al.</i>, 2020; Lim and Busenitz, 2020; Reichenbach and Walther, 2021).</p>
Social capital theory	<p>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.</p>	<p>(Coleman, 1988; Groza <i>et al.</i>, 2020; Zheng <i>et al.</i>, 2014).</p>
Social exchange theory	<p>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.</p>	<p>(Yang and Koh, 2022).</p>
Social responsibility theory	<p>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.</p>	<p>(Berns <i>et al.</i>, 2020; Camilleri, 2019a).</p>
Stakeholder theory	<p>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 resource-based view of the firm, market-based view as well as on relevant normative theories relating to ethical</p>	<p>(Camilleri, 2019b; Freeman, 1984; Troise and Camilleri, 2021; Valančienė and Jegelevičiūtė 2014).</p>

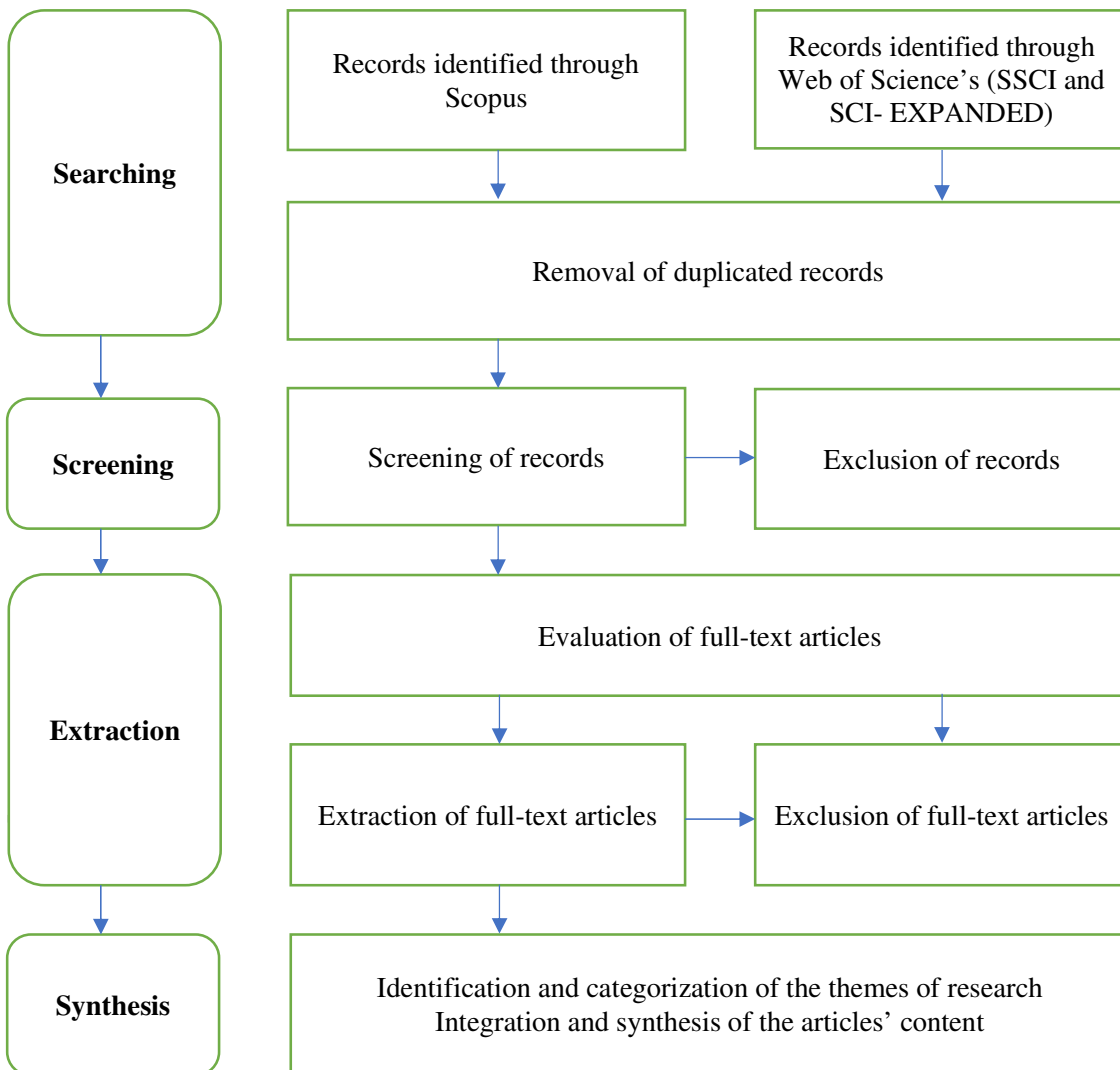
	responsibility, that address social issues in management.	
Status quo bias theory	The status quo bias theory suggests that individuals, groups and organizations tend to prefer the current state of affairs, as they are averse to change. The status quo cognitive bias affects their behaviors.	(Yang and 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 technology acceptance model 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).

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’ SSCI and SCI-EXPANDED, as shown in Figure 1. The bibliographic analysis was carefully planned and documented in all stages, to ensure accountability, integrity, and transparency. PRISMA ensured that the data collection and the analyses were rigorous and trustworthy (Paschou *et al.*, 2020).

Figure 1. A PRISMA protocol for systematic analysis



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 Web of Science’s core collections in Emerging Sources Citations Index (ESCI), Science Expanded (SCI-EXPANDED) and Social Sciences Citations Index (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:

Table 2. Inclusion and exclusion criteria for the systematic review

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.

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).

There were 72 (out of 107 publications in Scopus) that were also included in Web of Sciences' repositories. 44 were featured within the Social Sciences Citation Index (SSCI), 21 were in Emerging Sources Citation Index, 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 of these contributions were empirical studies (38 of them were quantitative studies, 6 involved interviews or focus groups, and 1 of them relied on sentiment/content analysis, to explore primary data). Moreover, there were 16 reviews/discursive papers, 9 exploratory analyses / descriptive research 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.

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

WOS	Scopus	Authors	Year	Source	Keywords	Research question	Methodology
SSCI	✓	Hornuf and Schwienbacher	2018	Journal of Corporate Finance	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	Small Business Economics	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	Journal of Business Venturing	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	Business Horizons	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	Business Horizons	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	Corporate Governance: An International Review	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	California Management Review	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 (and on the startups' later performance).	Empirical (Qualitative)
SSCI	✓	Kgoroadira, <i>et al.</i>	2019	Small Business Economics	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	Electronic Markets	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	Research Policy	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	Small Business Economics	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	Journal of Economic Surveys	Crowdfunding; Entrepreneurial finance; Innovation.	This research explores the literature that links crowdfunding with entrepreneurial innovation.	Review/Discursive
SSCI	✓	Berns <i>et al</i>	2020	Journal of Business Ethics	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	Venture Capital	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
SSCI	✓	Bonini and Capizzi	2019	Venture Capital	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	Small Business Economics	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	Technological Forecasting and Social Change	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	Games	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	Journal of Small Business and Enterprise Development	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	Journal of Management Information Systems	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 <i>et al.</i>	2020	Journal of Business Research	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)
SSCI	✓	Schwiebacher	2019	Venture Capital	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 <i>et al.</i>	2018	International Journal of Gender and Entrepreneurship	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 <i>et al.</i>	2018	Finance a Uver - Czech Journal of	Crowdfunding, Entrepreneurship,	This research focuses on reward-based crowdfunding and identifies	Empirical (Quantitative)

				Economics and Finance	Startups, Information, Innovation.	the basic determinants of successful crowdfunding campaigns.	
SSCI	✓	Kim and Hall	2020	Current Issues in Tourism	Tourism investment; Venture quality theory; Uncertainty theory; Word-of-mouth theory; Re-participation; 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 re-participation in tourism investment crowdfunding.	Empirical (Quantitative)
SSCI	✓	Lim and Busenitz	2020	Journal of Small Business Management	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 <i>et al.</i>	2019	Sustainability (Switzerland)	Crowdfunding; Cost-benefit framework; Purchase intention; Perceived net goal attainment; Innovation.	The research relied on the goal attainment theory (GAT) to explore the consumers' intentions to use crowdfunding.	Empirical (Quantitative)
SSCI	✓	Johan and Zhang	2021	Journal of Technology Transfer	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 <i>et al.</i>	2020	Entrepreneurship: Theory and Practice	Hypothetical bias, Voting, Trust, Equity crowdfunding.	This research explores what motivates individuals to withdraw from their initial commitment to invest through crowdfunding.	Empirical (Quantitative)
SSCI	✓	Yang and Lee	2019	Human Factors and Ergonomics in Manufacturing	Crowdfunding, Innovation adoption, Status quo bias theory, Two-factor theory.	This study investigates the enablers and inhibitors of crowdfunding from the perspective of startups by employing the two-factor theory, status quo bias theory (SQBT), and innovation diffusion theory (IDT).	Empirical (Quantitative)

SSCI	✓	Tiberius and Hauptmeijer	2021	Journal of Small Business Management	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	Sustainability (Switzerland)	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	Managerial Finance	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	International Journal of Managerial Finance	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	Information Economics and Policy	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	VINE Journal of Information and Knowledge Management Systems	SME, Crowdfunding, Startups.	This research analyzes the effects of crowdfunding on small- and medium-sized enterprises (SMEs) and on startups firms.	Review/Discursive

SSCI and SCI-EXPANDED	✓	Gan <i>et al.</i>	2021	Management Science	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	✓	Harlow	2021	Digital Journalism	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	European Business Organization Law Review	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	Technological Forecasting and Social Change	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	International Journal of Cultural Policy	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	Managerial Finance	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	✓	Hendratmi <i>et al.</i>	2020	Journal of Islamic Marketing	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	Benchmarking	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)
SSCI	✓	Saura <i>et al.</i>	2021	Journal of Theoretical and Applied Electronic Commerce Research	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	Small Business Economics	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	International Journal of Innovation Science	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	ISRA International Journal of Islamic Finance	Structural equation modeling (SEM); Malaysian entrepreneurship; Shari'ah-compliant equity-based	This research develops a framework for Shari'ah-compliant equity-based crowdfunding (SEC) for entrepreneurship development in Malaysia.	Empirical (Quantitative)

					crowdfunding (SEC); Theory of reasoned action (TRA).		
SSCI	✓	Kleinert <i>et al.</i>	2020	Small Business Economics	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	Journal of Corporate Law Studies	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	Journal of Research in Marketing and Entrepreneurship	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	Journal of Accounting and Organizational Change	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	Wireless Personal Communications	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	Administrative Sciences	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)
ESCI	✓	Shang <i>et al.</i>	2020	Chinese Economy	China; Crowdfunding; Finance performance;	This study investigates the impact of monitoring venture investors' crowdfunding projects on product	Empirical (Quantitative)

					Product innovation; Venture investor.	innovation performance (in follow-up projects).	
SSCI	✓	Theokary <i>et al.</i>	2020	Journal of Small Business Management	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	Journal of Business and Industrial Marketing	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	Financial Innovation	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	Mathematics	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	Production and Operations Management	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	Mathematics	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)
SSCI	✓	Bakri <i>et al.</i>	2021	Estudios de Economía Aplicada	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	Asian Journal of Management Cases	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	Journal of Global Fashion Marketing	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	Entrepreneurship and Sustainability Issues	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	IEEE Transactions on Engineering Management	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	Review of Behavioral Finance	Crowdfunding; Securities design; Financial markets.	This study investigates key success factors of crowdfunding investments. The authors explore the designs of	Empirical (Quantitative)

						their securities, crowdfunding settings, their campaigns, etc.	
ESCI	✓	Mourao <i>et al.</i>	2018	International Journal of Financial Studies	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	Sustainability (Switzerland)	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)
SSCI	✓	Carvajal <i>et al.</i>	2018	Journal of Economic Theory	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	China Nonprofit Review	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	Administrative Law Review	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: These articles were published during a 5-year period between 2017-2021. They were sorted from highest to lowest number of citations.

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 *et al.*, 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 Schwienbacher, 2017; Hornuf and Schwienbacher, 2018; Tiberius and Hauptmeijer, 2021), as well as crowd investing /crowd-investing (Ezangina and Evstratov, 2019; Goethner *et al.*, 2021; Hornuf and Schwienbacher, 2017; Hornuf and Schwienbacher, 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, 2018; 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, Tani and Jones, 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; Hornuf and Schwienbacher, 2018; Hornuf *et al.*, 2018; Lee, 2019; Lin and Wang, 2021; Mamonov *et al.*, 2017), peer-to-peer (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 peer-to-peer 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 non-financial 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, 2021b; Lazzaro and Noonan, 2021).

Various researchers discussed on the pros and cons of using crowdfunding platforms (Prezenza *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 digital media (Eiteneyer *et al.*, 2019; Kim and Hall, 2020; Paschen, 2017).

The diffusion of innovations theory suggests that there are five key elements that could influence the diffusion of a new idea (through crowdfunding platforms), including the innovation itself, adopters/users, communication/media channels, time, as well as social systems (Kleinert, Volkmann and Grünhagen, 2020; Lim and Busenitz, 2020; Reichenbach and Walther, 2021; Rogers, 2003). Crowdfunding platforms 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 the crowdfunding investors are affected by various communication channels, including by competing organizations and regulatory institutions (Hornuf and Schwienbacher, 2017; Tiberius and Hauptmeijer, 2021; Carvajal, Rostek and Sublet, 2018).

The subjective norms in society can influence the individuals' intentions to use innovations like crowdfunding platforms (Duasa, 2020; Munim, 2019; Shneor and 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 resource-based view theory (RBV). New businesses like startups, as well as small businesses may usually possess fewer resources including liquidity, than established businesses (Camilleri & Valeri, 2021; Elia *et al.*, 2021). They may also have access to limited competences and capabilities. Notwithstanding, 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) (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 on their projects. They can appeal to larger audiences through the digital media. These 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, 2022), 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, as opposed to community-oriented, not-for-profit projects with social or environmental purposes (Camilleri, 2021a), that may be promoted via low minimum prices, to appeal to sponsors (Jiménez-Jiménez *et al.*, 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 (willingly or unwillingly) 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 potential rewards and risks 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 any 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 certain difficulties, 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). As a result, they might find themselves liquidating them 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 focused on crowdfunding of small businesses and startups, that were published during the past 5 years, between January 2017 and December 2021.

The researchers clearly appraised them. They 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 systematic review 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; Goal Attainment Theory 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 from the bibliographic research 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 possibilities of 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, they may consider using different keywords in their bibliographic studies.

Acknowledgements

The authors thank the editor, guest editors and the reviewers of this journal, for their constructive remarks and suggestions. They were much appreciated.

References

- Aggarwal, R., Lee, M.J., Osting, B. and Singh, H. (2021), “Improving funding operations of equity-based crowdfunding platforms, *Production and Operations Management*, Vol. 30 No. 11, pp. 4121-4139.
- Ajzen, I. (1991), “The theory of planned behavior” *Organizational behavior and human decision processes*, Vol. 50 No. 2, pp. 179-211.
- Bakri, M.H., Md Radzai, M.S. and Rasid, A.M.M. (2021), “Technology acceptance in crowdfunding among retailers”, *Estudios de Economia Aplicada*, Vol. 39 No. 5, pp. 1-12.
- Belleflamme, P., Lambert, T. and Schwienbacher, A. (2014), “Crowdfunding: tapping the right crowd”, *Journal of Business Venturing*, Vol. 29 No. 5, pp. 585-609.
- Belleflamme, P., Omrani, N. and Peitz, M. (2015), “The economics of crowdfunding platforms”, *Information Economics and Policy*, Vol. 33, pp. 11-28.

- Bento, N., Gianfrate, G. and Groppo, S. V. (2019), “Do crowdfunding returns reward risk? Evidences from clean-tech projects”, *Technological Forecasting and Social Change*, Vol. 141, pp. 107-116.
- Berns, J.P., Figueroa-Armijos, M., da Motta Veiga, S.P. and Dunne, T.C. (2020), “Dynamics of Lending-Based Prosocial Crowdfunding: Using a Social Responsibility Lens”, *Journal of Business Ethics*, Vol. 161 No. 1, pp. 169-185.
- Block, J.H., Groh, A., Hornuf, L., Vanacker, T. and Vismara, S. (2021), “The entrepreneurial finance markets of the future: a comparison of crowdfunding and initial coin offerings”, *Small Business Economics*, Vol. 57 No. 2, pp. 865-882.
- Bonini, S. and Capizzi, V. (2019), “The role of venture capital in the emerging entrepreneurial finance ecosystem: future threats and opportunities”, *Venture Capital*, Vol. 21 Nos 2 -3, pp. 137-175.
- Boylan, D.H., Nesson, D. and Philipps, J. (2018), “Understanding crowdfunding for business funding – a legal and platform review”, *Journal of Accounting and Organizational Change*, Vol. 14 No. 3, pp. 273-290.
- Bresciani, S., Camilleri, M. A., Troise, C. and O'Regan, N. (2022). “Call for Papers - Creating value through open innovation approaches: Implications for corporate sustainability and responsibility”, *Business Ethics, the Environment and Responsibility*, <https://onlinelibrary.wiley.com/pb-assets/26946424/BEER%20Creating%20value%20CFP%202021-1642521134653.pdf>
- Brown, T.E., Boon, E. and Pitt, L.F. (2017), “Seeking funding in order to sell: Crowdfunding as a marketing tool”, *Business Horizons*, Vol. 60 No. 2, pp. 189-195.
- Bruton, G., Khavul, S., Siegel, D. and Wright, M. (2015), “New financial alternatives in seeding entrepreneurship: Microfinance, crowdfunding, and peer-to-peer innovations”, *Entrepreneurship Theory and Practice*, Vol. 39 No. 1, pp. 9-26.
- Camilleri, M. A. (2018), “Nurturing travel and tourism enterprises for economic growth and competitiveness”, *Tourism and Hospitality Research*, Vol. 18 No. 1, pp. 123-127.
- Camilleri, M. A. (2019a), “Measuring the corporate managers’ attitudes towards ISO’s social responsibility standard”, *Total Quality Management & Business Excellence*, 30(13-14), 1549-1561.
- Camilleri, M.A. (2019b), "The SMEs’ technology acceptance of digital media for stakeholder engagement", *Journal of Small Business and Enterprise Development*, Vol. 26 No. 4, pp. 504-521.
- Camilleri, M.A. (2021a), "The market for socially responsible investing: a review of the developments", *Social Responsibility Journal*, Vol. 17 No. 3, pp. 412-428.

Camilleri, M. A. (2021b), “Strategic attributions of corporate social responsibility and environmental management: The business case for doing well by doing good!”, *Sustainable Development*, <https://doi.org/10.1002/sd.2256>

Camilleri, M.A. and Valeri, M. (2021), "Thriving family businesses in tourism and hospitality: A systematic review and a synthesis of the relevant literature", *Journal of Family Business Management*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JFBM-10-2021-0133>

Camilleri, M. A. (2022), “Walking the talk about corporate social responsibility communication: An elaboration likelihood model perspective”, *Business Ethics, the Environment & Responsibility*, <https://doi.org/10.1111/beer.12427>

Carvajal, A., Rostek, M. and Sublet, G. (2018), “Information design and capital formation”, *Journal of Economic Theory*, Vol. 176, pp. 255-292.

Charmaz, K. (2014), *Constructing grounded theory*, 2nd Edition, Sage, Thousand Oaks, CA, USA.

Chaudhari, S.L. and Sinha, M. (2021), “A study on emerging trends in Indian startup ecosystem: big data, crowd funding, shared economy”, *International Journal of Innovation Science*, Vol. 13 No. 1, pp. 1-16.

Cheong, C.W.H., Lee, M.H. and Weissmann, M.A. (2020), “Credit access, tax structure and the performance of Malaysian manufacturing SMEs”, *International Journal of Managerial Finance*, Vol. 16 No. 4, pp. 433-454.

Cohen, P. (2017), “The common denominator between crowdfunding and securitization of subprime mortgages: The SEC”, *Administrative Law Review*, Vol. 69 No. 3, pp. 671-694.

Coleman, J.S. (1988), “Social capital in the creation of human capital”, *American Journal of Sociology*, Vol. 94, pp. S95-S120.

Cox, J. and Nguyen, T. (2018), “Does the crowd mean business? An analysis of rewards-based crowdfunding as a source of finance for start-ups and small businesses”, *Journal of Small Business and Enterprise Development*, Vol. 25 No. 1, pp. 147-162.

Cumming, D., Hervé, F., Manthé, E. and Schwienbacher, A. (2020), “Testing-the-Waters Policy With Hypothetical Investment: Evidence From Equity Crowdfunding”, *Entrepreneurship: Theory and Practice*, Vol. ahead-of-print No. ahead-of-print, <https://doi.org/10.1177/1042258720932522>

Davis, F.D. (1989), “Perceived usefulness, perceived ease of use, and user acceptance of information technology”, *MIS Quarterly*, Vol 13 No. 3, pp. 319-340.

- Del Giudice, M., Scuotto, V., Papa, A., Tarba, S., Bresciani, S., and Warkentin, M. (2021) “A self-tuning model for smart manufacturing SMEs: effects on digital innovation,” *Journal of Product Innovation Management*, Vol. 38 No. 1, pp. 68-89, doi 10.1111/jpim.12560.
- Di Pietro, F., Prencipe, A. and Majchrzak, A. (2018), “Crowd equity investors: An underutilized asset for open innovation in startups”, *California Management Review*, Vol. 60 No. 2, pp. 43-70.
- Eiteneyer, N., Bendig, D. and Brettel, M. (2019), “Social capital and the digital crowd: Involving backers to promote new product innovativeness”, *Research Policy*, Vol. 48 No. 8, pp.1-15.
- Elia, S., Giuffrida, M., Mariani, M., Bresciani, S. (2021), “Resources and digital export: An RBV perspective on the role of digital technologies and capabilities in cross-border e-commerce”, *Journal of Business Research*, Vol. 132, pp. 158-169, DOI: <https://doi.org/10.1016/j.jbusres.2021.04.010>.
- Ezangina, I.A. and Evstratov, A.V. (2019), “New instruments for financing small and medium enterprises in russia: Crowdfunding”, *Finance: Theory and Practice*, Vol. 23 No. 3, pp. 122-136.
- Feola, R., Vesci, M., Marinato, E. and Parente, R. (2021), “Segmenting ‘digital investors’: evidence from the Italian equity crowdfunding market”, *Small Business Economics*, Vol. 56 No. 3, pp. 1235-1250.
- Fishbein, M. and Ajzen, I. (1975), “Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research”, Reading, MA: Addison-Wesley.
- Fortezza, F., Pagano, A. and Bocconcelli, R. (2021), “Serial crowdfunding in start-up development: a business network view”, *Journal of Business and Industrial Marketing*, Vol. 36 No. 13, pp. 250-262.
- Foster, J. (2019), “Thank you for being a friend: The roles of strong and weak social network ties in attracting backers to crowdfunded campaigns”, *Information Economics and Policy*, Vol. 49, ahead-of-print No. ahead-of-print, <https://doi.org/10.1016/j.infoecopol.2019.100832>
- Freeman, R.E. (1984), “Strategic Management: A Stakeholder Approach”, Boston: Pitman.
- Gan, J., Tsoukalas, G. and Netessine, S. (2021), “Initial coin offerings, speculation, and asset tokenization”, *Management Science*, Vol. 67 No. 2, pp. 914-931.
- Garaus, C., Izdebski, N. and Lettl, C. (2020), “What Do Crowd Equity Investors Do? Exploring Postinvestment Activities in Equity Crowd Funding”, *IEEE Transactions on Engineering Management*, pp. 1-12, 10.1109/TEM.2020.3041073
- Giudici, P. and Agstner, P. (2019), “Startups and Company Law: The Competitive Pressure of Delaware on Italy (and Europe?)”, *European Business Organization Law Review*, Vol. 20 No. 4, pp. 597-632.

Goethner, M., Hornuf, L. and Regner, T. (2021), "Protecting investors in equity crowdfunding: An empirical analysis of the small investor protection act", *Technological Forecasting and Social Change*, Vol. 162, ahead-of-print No. ahead-of-print, <https://doi.org/10.1016/j.techfore.2020.120352>

Groza, M.P., Groza, M.D. and Barral, L.M. (2020), "Women backing women: The role of crowdfunding in empowering female consumer-investors and entrepreneurs. *Journal of Business Research*, Vol. 117, pp. 432-442.

Gupta, G. and Bose, I. (2019), "Strategic learning for digital market pioneering: Examining the transformation of Wishberry's crowdfunding model", *Technological Forecasting and Social Change*, Vol. 146, pp. 865-876.

Harlow, S. (2021), "Entrepreneurial News Sites as Worthy Causes? Exploring Readers' Motivations Behind Donating to Latin American Journalism", *Digital Journalism*, Vol. 9 No. 3, pp. 364-383.

Hashemi Joo, M., Nishikawa, Y. and Dandapani, K. (2020), "ICOs, the next generation of IPOs", *Managerial Finance*, Vol. 46 No. 6, pp. 761-783.

Hendratmi, A., Ryandono, M.N.H. and Sukmaningrum, P.S. (2020), "Developing Islamic crowdfunding website platform for startup companies in Indonesia, *Journal of Islamic Marketing*, Vol. 11 No. 5, pp. 1041-1053.

Hervé, F. and Schwienbacher, A. (2018), Crowdfunding and Innovation, *Journal of Economic Surveys*, Vol. 32 No. 5, pp. 1514-1530.

Higgins, E.T. (1998), "Promotion and prevention: regulatory focus as a motivational principle", In: Zanna, M.P. (Ed.), *Advances in Experimental Social Psychology*, vol. 30. Academic Press, New York, pp. 1 – 46.

Hoegen, A., Steininger, D.M. and Veit, D. (2018), "How do investors decide? An interdisciplinary review of decision-making in crowdfunding", *Electronic Markets*, Vol. 28 No. 3, pp. 339-365.

Hornuf, L., Schmitt, M. and Stenzhorn, E. (2018), "Equity crowdfunding in Germany and the United Kingdom: Follow-up funding and firm failure", *Corporate Governance: An International Review*, Vol. 26 No. 5, pp. 331-354.

Hornuf, L. and Schwienbacher, A. (2017), "Should securities regulation promote equity crowdfunding?", *Small Business Economics*, Vol. 49 No. 3, pp. 579-593.

Hornuf, L. and Schwienbacher, A. (2018), "Market mechanisms and funding dynamics in equity crowdfunding", *Journal of Corporate Finance*, Vol. 50, pp. 556-574.

- Ibrahim, D.M. (2019), “Public or private venture capital?”, *Washington Law Review*, Vol. 94, 3, pp. 1137-1174.
- Janků, J. and Kučerová, Z. (2018), “Successful crowdfunding campaigns: The role of project specifics, competition and founders’ experience”, *Finance a Uver - Czech Journal of Economics and Finance*, Vol. 68 No. 4, pp. 351-373.
- Jiménez-Jiménez, F., Alba-Fernández, M.V. and Martínez-Gómez, C. (2021), “Attracting the right crowd under asymmetric information: A game theory application to rewards-based crowdfunding”, *Mathematics*, Vol. 9 No. 21, 2757, <https://doi.org/10.3390/math9212757>
- Johan, S. and Zhang, Y. (2021), “Investors’ industry preference in equity crowdfunding”, *Journal of Technology Transfer*, Vol. ahead-of-print No. ahead-of-print. <https://link.springer.com/article/10.1007%2Fs10961-021-09897-8>
- Johnson, M.A., Stevenson, R.M. and Letwin, C.R. (2018), “A woman's place is in the... startup! Crowdfunder judgments, implicit bias, and the stereotype content model”, *Journal of Business Venturing*, Vol. 33 No. 6, pp. 813-831.
- Josefy, M., Dean, T.J., Albert, L.S. and Fitza, M.A. (2017), “The role of community in crowdfunding success: Evidence on cultural attributes in funding campaigns to “save the local theater”, *Entrepreneurship Theory and Practice*, Vol. 41 No. 2, pp. 161-182.
- Kaminski, J.C. and Hopp, C. (2020), “Predicting outcomes in crowdfunding campaigns with textual, visual, and linguistic signals”, *Small Business Economics*, Vol. 55 No. 3, pp. 627-649.
- Kgoroadira, R., Burke, A. and van Stel, A. (2019), “Small business online loan crowdfunding: who gets funded and what determines the rate of interest?”, *Small Business Economics*, Vol. 52 No. 1, pp. 67-87.
- Kim, M.J. and Hall, C.M. (2020), “Investment crowdfunding in the visitor economy: the roles of venture quality, uncertainty, and funding amount”, *Current Issues in Tourism*, Vol. 23 No. 20, pp. 2533-2554.
- Kleinert, S., Volkmann, C. and Grünhagen, M. (2020), “Correction to: Third-party signals in equity crowdfunding: the role of prior financing”, *Small Business Economics*, Vol. 54 No. 1, pp. 341-365.
- Kneese, T. (2021), “Keep it Oakland: e-commerce meets social justice”, *Media, Culture and Society*, Vol. ahead-of-print No. ahead-of-print, <https://doi.org/10.1177/01634437211048342>
- Ko, J. and Ko, E. (2021), “What fashion startups should know before launching Crowdfunding projects: Focusing on Wadiz reward Crowdfunding”, *Journal of Global Fashion Marketing*, Vol. 12 No. 2, pp. 176-191.

- Lagazio, C. and Querci, F. (2018), “Exploring the multi-sided nature of crowdfunding campaign success”, *Journal of Business Research*, Vol. 90, pp. 318-324.
- Lazzaro, E. and Noonan, D. (2021), “A comparative analysis of US and EU regulatory frameworks of crowdfunding for the cultural and creative industries”, *International Journal of Cultural Policy*, Vol. 27 No. 5, pp. 590-606.
- Lee, E. (2019), “Equity crowdfunding in Hong Kong: potential, challenges and investor protection”, *Journal of Corporate Law Studies*, Vol. 19 No.2, pp. 277-302.
- Li, G. and Wang, J. (2019), “Threshold Effects on Backer Motivations in Reward-Based Crowdfunding”, *Journal of Management Information Systems*, Vol 36 No. 2, pp. 546-573.
- Li, Y., Zhang, Z., Wang, R. and Chen, Y. (2019), “Consumer purchase intention toward crowdfunding products/services: A cost-benefit perspective”, *Sustainability*, Vol. 11 No. 13, 3579.
- Lim, J.Y.K. and Busenitz L.W. (2020), “Evolving human capital of entrepreneurs in an equity crowdfunding era”, *Journal of Small Business Management*, Vol. 58 No. 1, pp. 106-129.
- Lin, C.-Y. and Wang, Y.-H. (2021), “Evaluating the optimal external equity financing strategy and critical factors for the startup of lending company in taiwan: An application of expert network decision model”, *Mathematics*, Vol. 9 No. 18, 2239.
- Malaga, R., Mamonov, S. and Rosenblum, J. (2018), “Gender difference in equity crowdfunding: an exploratory analysis”, *International Journal of Gender and Entrepreneurship*, Vol. 10 No. 4, pp. 332-343.
- Mamonov, S., Malaga, R. and Rosenblum, J. (2017), “An exploratory analysis of Title II equity crowdfunding success”, *Venture Capital*, Vol 19 No. 3, pp. 239-256.
- Miglo, A. (2020), “Financing of entrepreneurial firms in Canada: Some patterns”, *Administrative Sciences*, Vol. 10 No. 3, 50.
- Mitrega, M., Siemieniako, D., Makkonenc, H., Kubackid, K., Bresciani, S. (2021), “Versatile capabilities for growth in the context of transforming countries: Evidence from Polish manufacturing companies”, *Journal of Business Research*, Vol. 134, pp. 156-170.
<https://doi.org/10.1016/j.jbusres.2021.05.038>.
- Moirangthem, N.S. and Nag, B. (2021), “Value-added Activities of Venture Capitals in Entrepreneurial Finance: Evidence from the Growth of Flipkart”, *Asian Journal of Management Cases*, Vol. ahead-of-print No. ahead-of-print, <https://doi.org/10.1177/0972820121998120>
- Mollick, E. (2014), “The dynamics of crowdfunding: An exploratory study”, *Journal of Business Venturing*, Vol. 29 No. 1, pp. 1-16.

Mollick, E. and Robb, A. (2016), “Democratizing Innovation and Capital Access: The Role of Crowdfunding”, *California Management Review*, Vol. 58 No. 2, pp. 72-87.

Moro-Visconti, R., Rambaudo, S.C. and Pascual, J.L. (2020), “Sustainability in FinTechs: An explanation through business model scalability and market valuation”, *Sustainability*, Vol. 12 No. 24, 10316.

Mourao, P., Silveira, M.A.P. and de Melo, R.S. (2018), “Many are never too many: An analysis of crowdfunding projects in Brazil”, *International Journal of Financial Studies*, Vol. 6, No. 4, 95.

Oliva, F., Couto, M., Santos, R. and Bresciani, S. (2019), “The integration between knowledge management and dynamic capabilities in agile organizations”, *Management Decision*, Vol. 57 No. 8, pp. 1960-1979. <https://doi.org/10.1108/MD-06-2018-0670>.

Paoloni, P., Paoloni, N. and Modaffari, G. (2019), “Crowdfunding as a new collaborative process in the knowledge economy: A literature review”, *VINE Journal of Information and Knowledge Management Systems*, Vol. 49 No. 2, pp. 241-255.

Paschen, J. (2017), “Choose wisely: Crowdfunding through the stages of the startup life cycle”, *Business Horizons*, Vol. 60 No. 2, pp. 179-188.

Polena, M. and Regner, T. (2018), “Determinants of borrowers’ default in P2P lending under consideration of the loan risk class”, *Games*, Vol. 9 No. 4, 82.

Prezenza, A., Abbate, T., Cesaroni, F., and Appio, F. P. (2019), “Enacting social crowdfunding business ecosystems: The case of the platform Meridonaire”, *Technological Forecasting and Social Change*, Vol. 143, pp. 190-201.

Rahman, M.P., Mohd Thas Thaker, M.A. and Duasa, J. (2020), “Developing a Sharī‘ah-compliant equity-based crowdfunding framework for entrepreneurship development in Malaysia”, *ISRA International Journal of Islamic Finance*, Vol. 12 No 2, pp. 239-252.

Rezaei, M., Jafari-Sadeghi, V. and Bresciani, S. (2020), “What drives the process of knowledge management in a cross-cultural setting: The impact of social capital”, *European Business Review*, Vol. 32 No. 3, pp. 485-511. <https://doi.org/10.1108/EBR-06-2019-0127>

Reichenbach, F. and Walther, M. (2021), “Signals in equity-based crowdfunding and risk of failure”, *Financial Innovation*, Vol. 7 No. 1, Vol. ahead-of-print No. ahead-of-print, <https://jfin-swufe.springeropen.com/articles/10.1186/s40854-021-00270-0>

Roedenbeck, M.R.H. and Lieb, M. (2018), “Continually harvesting the crowds: A comparative case study of CMON and PEGASUS in the crowdfunding tabletop market”, *Journal of Research in Marketing and Entrepreneurship*, Vol. 20 No. 2, pp. 147-169.

Rogers, E.M. (2003), “Diffusion of innovations” (5th ed.). New York: Free Press.

Sahin, I. (2006), "Detailed review of Rogers' diffusion of innovations theory and educational technology-related studies based on Rogers' theory", *Turkish Online Journal of Educational Technology-TOJET*, Vol. 5 No. 2, pp. 14-23.

Saura, J.R., Reyes-Menéndez, A., Dematos, N. and Correia, M.B. (2021), "Identifying startups business opportunities from ugc on twitter chatting: An exploratory analysis", *Journal of Theoretical and Applied Electronic Commerce Research*, Vol. 16 No. 6, pp. 1929-1944.

Schwienbacher, A. (2019), "Equity crowdfunding: anything to celebrate?", *Venture Capital*, Vol. 21 No. 1, pp. 65-74.

Shahab, Y., Riaz, Y., Ntim, C.G., Ye, Z., Zhang, Q. and Feng, R. (2021), "Online feedback and crowdfunding finance in China", *International Journal of Finance and Economics*, Vol. 26 No. 3, pp. 4634-4652.

Shang, Y., Yu, H. and Ma, Z. (2020), "Venture Investors' Monitoring and Product Innovation Performance in Serial Crowdfunding Projects: An Empirical Test", *Chinese Economy*, Vol. 53 No. 3, pp. 300-314.

Shengfen, Z. (2018), "Investigation into Funding Strategies of Social Enterprises", *China Nonprofit Review*, Vol. 10 No. 1, pp. 34-61.

Shneor, R., and Munim, Z. H. (2019), "Reward crowdfunding contribution as planned behaviour: An extended framework", *Journal of Business Research*, Vol. 103, pp. 56-70.

Smirnova, E., Platt, K., Lei, Y. and Sanacory, F. (2020), "Pleasing the crowd: the determinants of securities crowdfunding success", *Review of Behavioral Finance* Vol. 13 No. 2, pp. 165-183.

Subramanian, H. (2020), "Security tokens: architecture, smart contract applications and illustrations using SAFE", *Managerial Finance*, Vol. 46 No. 6, pp. 735-748.

Teberga, P.M.F. and Oliva, F.L. (2018), "Identification, analysis and treatment of risks in the introduction of new technologies by start-ups", *Benchmarking*, Vol. 25 No. 5, pp. 1363-1381.

Theokary, C., Sarangee, K. and Karniouchina, E.V. (2020), "The impact of strategic partnerships on crowdfunding outcomes: Which ties really matter?", *Journal of Small Business Management*, Vol. ahead-of-print No. ahead-of-print, <https://doi.org/10.1080/00472778.2020.1796466>

Tiberius, V. and Hauptmeijer, R. (2021), "Equity crowdfunding: Forecasting market development, platform evolution, and regulation", *Journal of Small Business Management*, Vol. 59 No. 2, pp. 337-369.

Troise, C., and Camilleri, M. A. (2021), "The use of digital media for marketing, CSR communication and stakeholder engagement", In *Strategic Corporate Communication in the Digital Age*, pp. 161-174, Emerald Publishing Limited, Bingley, UK.

Troise, C., Matricano, D., and Sorrentino, M. (2021), “Open Innovation Platforms: exploring the importance of knowledge in supporting online initiatives”, *Knowledge Management Research & Practice*, Vol. 19 No. 2, pp. 208-216.

Troise, C., Tani, M. and Jones, P. (2020), “Investigating the impact of multidimensional social capital on equity crowdfunding performance”, *International Journal of Information Management*, 55, Vol. ahead-of-print No. ahead-of-print, <https://doi.org/10.1016/j.ijinfomgt.2020.102230>

Troise, C. and Tani, M. (2020), “Exploring entrepreneurial characteristics, motivations and behaviours in equity crowdfunding: some evidence from Italy”, *Management Decision*. Vol. 59 No. 5, pp. 995-1024.

Valančienė, L. and Jegelevičiūtė, S. (2014), “Crowdfunding for creating value: stakeholder approach”, *Procedia-Social and Behavioral Sciences*, Vol. 156, pp. 599-604.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003), “User acceptance of information technology: Toward a unified view”, *MIS Quarterly*, Vol. 27 No 3, pp. 425-478.

Vismara, S. (2016), “Equity retention and social network theory in equity crowdfunding”, *Small Business Economics*, Vol. 46 No. 4, pp. 579-590.

Vrontis, D., Christofi, M., Battisti, E. and Graziano, E.A. (2020), “Intellectual capital, knowledge sharing and equity crowdfunding”, *Journal of Intellectual Capital*, Vol. 22 No. 1, pp. 95-121.

Wernerfelt, B. (1984), “A resource-based view of the firm”, *Strategic Management Journal*, Vol. 5 No. 2, pp. 171-180.

Yan, Z., Wang, K., Tsai, S.-B. and Zhou, L. (2018), “An empirical study on internet startup financing from a green financial perspective”, *Sustainability*, Vol. 10 No. 8, 2912.

Yang, Q. and Lee, Y.C. (2019), “An investigation of enablers and inhibitors of crowdfunding adoption: Empirical evidence from startups in China”, *Human Factors and Ergonomics in Manufacturing*”, Vol. 29 No. 1, pp. 5-21.

Yang, Y.Y. and Koh, Y. (2022), Is restaurant crowdfunding immune to the COVID-19 pandemic? *International Journal of Contemporary Hospitality Management*, Vol. ahead-of-print No. ahead-of-print, <https://doi.org/10.1108/IJCHM-06-2021-0817>

Yang, Y., Wang, H. J., and Wang, G. (2016), “Understanding crowdfunding processes: a dynamic evaluation and simulation approach”, *Journal of Electronic Commerce Research*, Vol. 17 No. 1, pp. 47-64.

Zabolotnikova, V., Selezneva, I., Nizamdinova, A., Mukhamedyarova-Levina, T. and Praliyeva, S. (2020), “Entrepreneurial projects’ development: Alternative sources of investments”, *Entrepreneurship and Sustainability Issues*, Vol. 8 No. 2, pp. 253-268.

Zhao, Y., Qin, Y., Zhao, X. and Shi, L. (2018), “Relationship Between Entrepreneurial Motivation and Crowdfunding Success Based on Qualitative Analysis-Based on Kickstarer Website Data”, *Wireless Personal Communications*, Vol. 102 No. 2, pp. 1723-1734.

Zheng, H., Li, D., Wu, J. and Xu, Y. (2014), “The role of multidimensional social capital in crowdfunding: A comparative study in China and US”, *Information and Management*, Vol. 51 No. 4, pp. 488-496.