

## Review

# Portugal's Crowdfunding: A Systematic Literature Review

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**Abstract:** This study aims to analyze and classify the evolution of crowdfunding in Portugal from 2014 to 2020, addressing the central question, “What is the evolution of literature on crowdfunding and its research focuses in Portugal?”. Additionally, it investigates, through the sub-question, if crowdfunding is perceived as an alternative form of financing. The methodology employs a systematic review, covering four thematic areas: (1) research focus—concepts; (2) research method—quantitative/qualitative identification; (3) geographical area—countries of study; (4) innovation—future research areas. The research begins with Google Scholar, followed by a more specific search of the B-On database, focusing on the Portuguese context. Results highlight the scarcity of research in Portugal, emphasizing the nascency of crowdfunding in the country. The study reveals the importance of investor behavior, influenced by platform security and regulations. Growth in crowdfunding in Portugal is anticipated, attracting multidisciplinary interest but emphasizing the need for more comprehensive studies. Despite limitations in data availability, the study provides valuable insights for entrepreneurs seeking alternative financing in Portugal, demonstrating crowdfunding as an alternative financing method. Integration of crowdfunding with technology, especially blockchain, is suggested as a potentially disruptive system, paving the way for future research and innovations.

**Keywords:** crowdfunding; Portugal; financing system; investor behavior; literature; lending crowdfunding



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## 1. Introduction

Collaborative or collective financing has existed for roughly two centuries, but the term ‘crowdfunding’ emerged in 2006, gaining greater prominence in the US in 2012 with the signing of the Jumpstart Our Business Startup (JOBS) Act.

As with any emerging field, popular and academic conceptions of crowdfunding are in a state of flux. [Schwienbacher and Larralde \(2010\)](#) define crowdfunding as “an open invitation, essentially via the Internet, to raise financial resources, either in the form of a donation or in exchange for some form of reward, in order to support initiatives for specific purposes”.

Crowdfunding is inspired by concepts such as microfinance and crowdsourcing ([Poetz and Schreier 2012](#)), but represents its own category when it comes to fundraising, and is facilitated by a growing number of websites dedicated to the subject.

As a rule, it involves three different entities: the promoters, the people who support the project and the platform through which the link between the promoters (those requesting the investment) and the supporters (the crowd—those who invest) is established. Its communication via the Internet allows the project to achieve scale, and its presentation helps it reach a wider audience.

Publicising and raising funds for the project can be done directly by the promoters; however, it is common to use crowdfunding platforms which, in general, “act as intermediaries between the promoters (of the projects) and the participants (investors), helping to publicise the campaigns and raise funds, in exchange for a commission” (Pinto 2015, p. 4).

As a way of raising money that has only recently emerged in Portugal, it has only been active since 2011 (Ferreira 2014); this fact alone highlights the scientific relevance of this article, and it is considered important to explore this construct. However, this article is also very relevant from a social point of view, because, according to Trabulo (2017), a large part of the Portuguese population does not know what crowdfunding is and may even be neglecting a valuable investment and financing tool, in a scenario where access to bank credit is increasingly difficult.

According to the report by the European Crowdfunding Networks (ECN, 2014 cit. in Medeiros 2015), Portuguese crowdfunding platforms, up until 2014, only included three collective financing models, which were based on donations, pre-sales (understood as a loan sub-model) and rewards, the most common model. However, with the approval of (Law No. 3 2018) of 9 February 2018, which defines the sanctioning regime applicable to the development of collaborative financing activity, the first amendment was made to the law that approves the legal regime of collaborative financing (RJFC)—(Law No. 102 2015) of 24 August 2015—and today four models of crowdfunding are recognized: equity crowdfunding; loan crowdfunding; donation crowdfunding; and reward crowdfunding. However, on 30 June 2021, the Portuguese Government announced the incorporation of the European directive regulating crowdfunding into national legislation, as reported by the ECO newspaper. This measure involves the implementation of new rules for crowdfunding in Portugal, streamlining the execution of campaigns across various countries in the European Union and enhancing investor protection against potential losses.

The decree law published in the Official Gazette ensures the transposition of Directive (EU) 2020/1503 of the European Parliament and the Council, dated 7 October 2020, concerning crowdfunding. The directive establishes a specific framework for crowdfunding, excluding the application of financial intermediation standards from the Securities Code. All European crowdfunding services with offerings reaching a maximum of five million euros are now covered by this common legislation.

The standardized rules aim to encourage cross-border crowdfunding campaigns within the European Union and ensure the efficient functioning of these services in the internal market. This harmonization measure within the European space strengthens cooperation between national and European financial supervisors. Although crowdfunding platforms have gained access to a larger investor base, they have also assumed new compliance responsibilities.

These regulations establish uniform requirements for the provision of crowdfunding services, addressing the purpose, scope, supervision requirements, conduct rules, and stakeholder protection.

The phenomenon of crowdfunding has driven the emergence of platforms fueled by the evolution of Internet technology, which has facilitated their communication and proliferation (Kallio and Vuola 2020, p. 109). Similar initiatives have contributed to refining crowdfunding, as exemplified by António Costa’s innovative campaign in 2013, which adopted crowdfunding to finance his Lisbon City Council campaign through one of Portugal’s most recognized crowdfunding platforms, PPL. Another example is the startup Volup, which launched an equity-crowdfunding campaign, reaching half a million euros in just 24 h.

In October 2023, the Jornal de Negócios announced the launch of the “fans to owners” platform by the American company F2o Sports, allowing fans to become owners of European football clubs via crowdfunding.

As for the existing platforms in Portugal, the first to appear in this context was PPL; however, other platforms have emerged and, according to (Ziegler et al. 2020), the

4th European benchmarking report on alternative finance of 2017 mentions and reports 10 platforms operating in the Portuguese market, noting that four of these platforms are Portuguese and six are foreign.

Studying crowdfunding in Portugal is essential, given the growing importance of this form of alternative financing. This study aims to not only analyse the global dynamics of crowdfunding, but also to understand how it manifests itself in a national context. By exploring data specific to Portugal, we can not only assess the effectiveness of crowdfunding as a viable financing alternative, but also identify cultural, economic and regulatory factors that shape this practice. An in-depth understanding of these elements benefits not only entrepreneurs looking for funding, but also investors, platforms and even public policies which, based on these analyses, can promote an environment more conducive to the sustainable development of crowdfunding in Portugal.

This article is based on a systematic literature review (SLR), with the aim of identifying the work carried out in a systematic, transparent and replicable way according to the guidelines presented by [Tranfield et al. \(2003\)](#), [Rashman et al. \(2009\)](#), and [Hohenstein et al. \(2014\)](#) and adapted by [Hansen and Schaltegger \(2016\)](#).

This methodology is appropriate, since the aim is to analyse and classify the existing literature on crowdfunding, extract and examine bibliographical references on current research currents, with the aim of culminating with current conclusions on the subject, and suggesting new areas of research. In order to provide a clear overview of scientific development and the themes of emerging research, we applied the technique of a systematic literature review, which is based on synthesising and evaluating the content of relevant publications. According to [Petticrew and Roberts \(2006, pp. 27–28\)](#), RSLs are literature reviews that follow a set of scientific methods with the explicit aim of reducing systematic bias by identifying, evaluating and synthesising all relevant studies in order to answer a specific question (or more).

This study specifically aims to provide a contextualisation of crowdfunding and its functionality in the Portuguese context, analysing its use as an alternative financing system. The basic question was intended to provide a generalised analysis of the current state of research and investigation into crowdfunding, but a sub-question was developed with the specific aim of extrapolating and narrowing down the investigation to the Portuguese context.

[Kitchenham \(2007\)](#) defines RSL as a way of “identifying, analysing and interpreting all available research content that is relevant to a specific research question”. According to the researcher, the process should begin by defining the basic research question and the methods that will be used. Next, the systematic review should be based on a well-defined and well-documented search strategy.

Furthermore, a systematic review requires “explicit inclusion and exclusion criteria” ([Kitchenham 2007](#), p. 12) and must specify the type of information to be obtained.

The following sections analyse the crowdfunding phenomenon and the main results obtained in response to the main question (P1), “What is the evolution of the literature on crowdfunding and what is the focus of research in Portugal?”. It will also be assessed if it is valid and verifiable for crowdfunding to be interpreted and assumed as an alternative financing system by developing a sub-question (SubP1).

In order to better delineate the main question, the sub-question, and the result to be achieved, this study is structured as follows: Section 1 introduces the topic to be explored; Section 2 provides a detailed research methodology, and specifically identifies the thematic areas to be explored within the scope of this RSL. Subsequently, the results obtained and the related analyses are discussed in Section 3.

Finally, Section 4 will present the conclusion of this RSL and, in turn, will try to envisage future research branching out from this study.

## 2. Methodology

The systematic review proposed in this article seeks to produce a contextualisation of crowdfunding and its functionality in the Portuguese context, with regard to its possible use as an alternative financing system, or what various researchers, such as [Bruton et al. \(2015\)](#), refer to as ‘crowdlending’, or loan-based crowdfunding.

The period analysed in this study is 2014–2020. Initially, a general analysis of the concept of crowdfunding was carried out by searching the Google Scholar database.

However, in order to provide a more concrete view of the type of studies and research methods used in the Portuguese context, a search was carried out in the separate B-On database in order to obtain, with the greatest possible rigour, the current state of research and knowledge on the subject of crowdfunding. The B-On database is made up of various scientific journals indexed in international rankings, such as Web of Science (WoS), Springer, Sage, Elsevier and Nature, among others.

With this framework, starting from the general (international) to the particular (Portugal), the aim is to provide the support and sustainability needed for a current characterisation of the concept at a national level.

The development of the initial phase of the review was divided into two stages: the first included the selection of databases, keyword testing and the definition of the main search strings for the search and data collection, and finally the selection and exclusion of documents.

The second stage involved recording the documents selected on the basis of the inclusion and exclusion criteria, and analysing them in detail by reading the summary, introduction and conclusion.

The aim is to classify and structure scientific papers on the phenomenon of crowdfunding based on RSL, by going through four phases:

1. Research focus—concepts;
2. Research method: by identifying and distinguishing between quantitative and qualitative research, the method used in the research is identified;
3. Geographical Area: indicates the origin, and the countries where the studies/research focus;
4. Innovation Focus: concerning new and future areas of research.

Firstly, scientific articles and a small number of masters and doctoral theses were read and compiled according to their respective topics.

It is important to note that in this study we considered masters and doctoral theses as additional inclusion criteria, as this is a topic that has not yet been explored in Portugal, with the exception a small number of scientific articles published on the subject in this context, as demonstrated by the research and results obtained through the selected database B-On, Biblioteca do Conhecimento Online.

### 2.1. Basic Research Question

Question (Q1): What is the evolution of the literature on crowdfunding and what are the research focuses in Portugal?

SUB question (SubP1): Is crowdfunding seen as an alternative form of financing?

To allow for a more detailed identification of the elements of the starting question, it was divided into four dimensions: population, intervention, comparison, outcomes, i.e., PICO ([Kitchenham 2007](#)). In order to contextualise the dimensions, as well as what is intended in each of them, Table 1 presents the relevant details.

**Table 1.** Components of the research question, following the anagram PICO.

Description	Abbreviation	Question Components	Incidence of the Study
Population (population)	P	It concerns the public being analysed.	International and Portuguese context (scientific papers on crowdfunding)
Intervention (intervention)	I	It asks what you want to review, whether one intervention or a set of several interventions.	The research aims to identify and characterise the focus of research into crowdfunding at international and national levels, and to determine if it is considered an alternative financing system.
Comparison (comparison)	C	Identify what is being compared at the intervention level.	The aim is to obtain a comparative criterion between the international and national contexts as to if it is perceived as a financing system. To this end, two databases were used.
Results (outcomes)	O	After evaluating them, it is possible to identify the most relevant aspects that can answer the starting question and sub-questions.	Evaluation of the positive and negative impacts of the studies were analysed. To find out whether it is possible to critically reflect on the different research methodologies in order to ascertain if crowdfunding is considered an alternative financing system.

A keyword-based literature search was carried out to identify the scientific publications relevant to this study (Kitchenham 2007).

The structured review includes the search for articles (selection of databases, time horizon, keywords and sources), as well as the selection, categorisation and analysis of scientific documents.

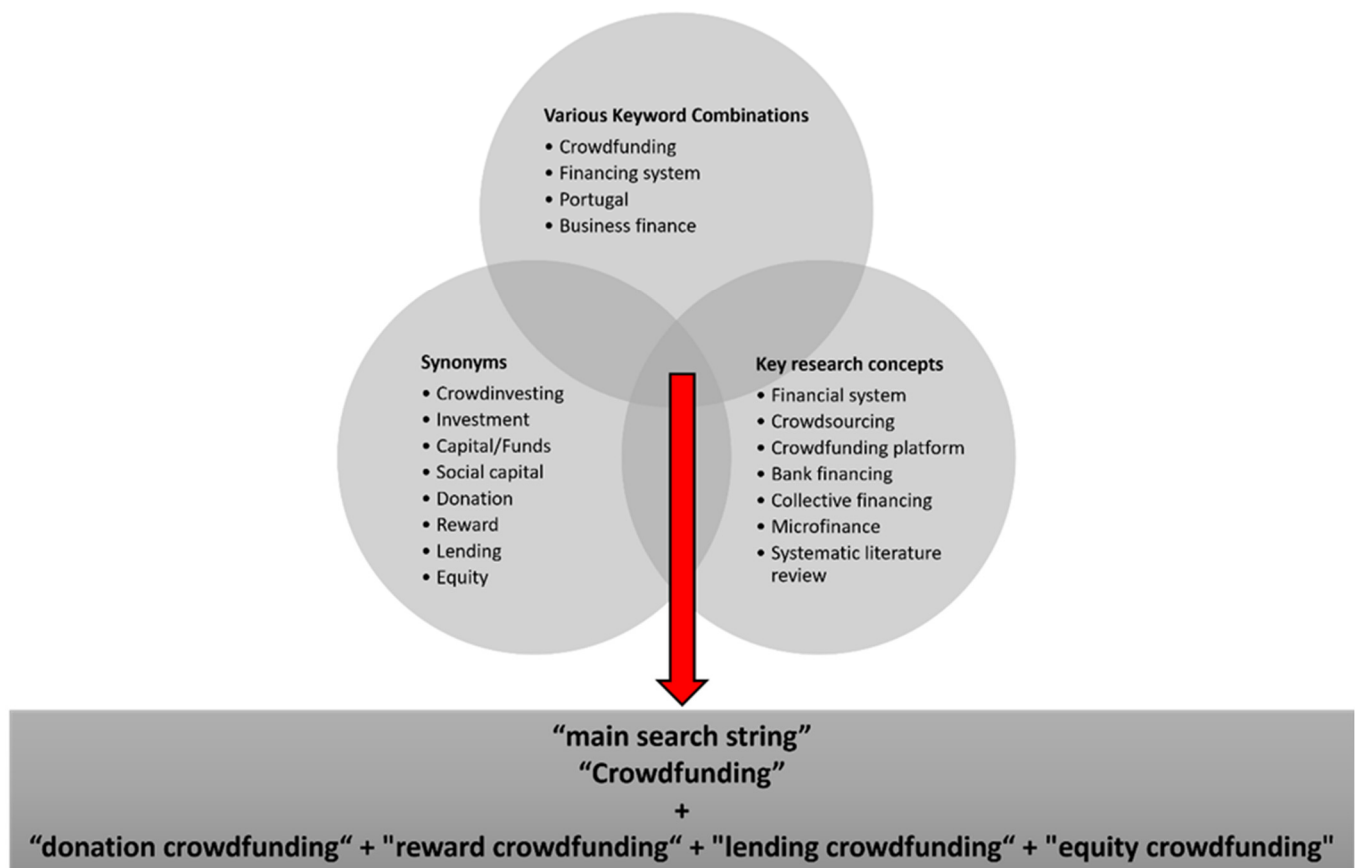
## 2.2. Strategy for Developing the Research Method

Based on the definition of the research question, and the stratification of the SUB-question defined in the anagram PICO, the central research strategy was built. The aim is to find and maximise what has been studied on the subject in question, excluding what is less relevant (Kitchenham 2007).

The starting point for the research strategy is through databases accessible on the internet (web), linked directly to scientific research repositories. The information to be verified, analysed and finally selected depends on the research question and the inclusion and exclusion criteria defined (Petticrew and Roberts 2006).

The research strategy consisted of starting from a list of synonyms, related themes or other variations of the keywords contained in the basic research question. This Venn diagram was developed, containing the main concepts of the research, the synonyms/terms related to crowdfunding, and finally, the application of an initial combination of key words.

The main search string was created and presented in Figure 1, a Venn diagram—“crowdfunding + “donation crowdfunding” “reward crowdfunding” “lending crowdfunding” “equity crowdfunding”. It is robust, thus satisfying the premise of including all documents (dissertations, theses, scientific research articles) with the word “crowdfunding” in the title, abstract and keywords. It was therefore possible to guarantee the identification in the databases searched of all the works that focus on the study of crowdfunding.



**Figure 1.** Development of the Venn diagram to build the “main search string”—source: personal illustration.

Based on the condition that the object of study had to focus on the subject of crowdfunding, and in particular the Portuguese context, the definition of the main search string also followed previously defined inclusion criteria.

One of these was based on the need for the study to be in the field of Economics and Management, and only documents published between 2014 and 2020 were considered. In the process of selecting and analyzing documents, additional inclusion criteria were defined, as well as exclusion criteria, as shown in Table 2.

**Table 2.** Criteria for inclusion and exclusion of documents.

Inclusion Criteria	Exclusion Criteria
Systematic literature reviews (SLR). “working papers” Entrepreneurs—start-ups. Bank financing VS crowdfunding. Master’s and doctoral theses.	Documents that do not have the keyword in the title of the article or thesis. Documents that do not focus on the “main search string” developed. Duplicates. Internship reports. Documents drawn up in languages other than Portuguese and English.

The exclusion criteria presented in Table 2 were applied in order to reduce the final sample of scientific documents supporting the systematic literature review, with a view to producing a more robust, direct and sustained result.

In order to obtain a global positioning of crowdfunding, and from there to detail the more specific context (which is the Portuguese context), an international database was defined, with a broad scope, so that a global, contextual and dynamic view of the object of study could be obtained. The database used was Google Scholar, which is highly densified, generalized and vast in terms of scientific research documents.



The other, more specific, database was chosen for the Portuguese context (national database), so that research on the subject could be identified and analyzed. The database selected was B-On, Biblioteca do Conhecimento Online, which is “a search tool for scientific information that facilitates simultaneous research in various information resources subscribed to by the national B-on consortium” (ISPA 2015). This database considered documents/articles published between 2014 and 2020.

### 2.3. Research Protocol—Selection of Articles/Documents

#### 2.3.1. Google Scholar Database (International Context)

The keyword was selected because the aim of this systematic literature review is to look at the field of crowdfunding research as a whole and not just at parallel topics. The first search interaction without any restrictions generated numerous results considering articles published between 2014 and 2020, more precisely 2950 articles in the “Google Scholar” database; a second interaction was then carried out with the keyword “crowdfunding” attached to the title of the article, and duplicate articles were eliminated, returning a search result of 518 articles.

Bearing in mind that there is already a greater number of studies and research on the subject in international literature, the aim is to “taper” the research in order to reduce the sample to the most current and relevant methodologies and research based on the types of crowdfunding.

So a third interaction was carried out following on from the previous ones. Procedural measures were introduced, such as the use of the “main search string”, which was checked using the Venn diagram, and the field with at least one of the words was defined in the advanced search of the database.

This input introduced the “main search string” (“donation crowdfunding” “reward crowdfunding” “lending crowdfunding” “equity crowdfunding”), which represents the four existing types of crowdfunding (donation, equity, lending and reward).

In turn, the inclusion and exclusion criteria were also applied, and the limiting factor of the field of study (Economics and Management) was introduced to improve the results of the research, resulting in the creation of a sample of 72 articles.

Finally, we read the abstracts of these 72 articles and, in addition to contextualising the focus of the research, selected the articles based on research methods similar to the one applied in this study, such as methods consisting of systematic literature reviews (SLRs) on crowdfunding. Both stages (reading the abstracts and selecting them) resulted in 54 articles for this RSL. These articles were then analysed, particularly in terms of the study methodology and conclusions, in order to safeguard their relevance to this research.

#### 2.3.2. B-On Database (National Context)

A second survey was carried out on the subject under study, with the premise of focusing on the Portuguese context, in order to obtain research carried out in a specific context on crowdfunding. In addition, the aim was to find out if crowdfunding is an alternative form of financing in Portugal.

The search was therefore carried out in a separate database, B-On. This database searched for articles and masters theses published exclusively between 2014 and 2020. In the first search interaction without any restriction, the keyword “crowdfunding” was entered, resulting in 537 articles/documents published in academic journals and 70 articles published in magazines (total 607 articles/documents).

Then, in a second interaction, limiters were introduced to improve the search results, such as the field of study (Business and Management) and the inclusion and exclusion criteria; finally duplicate articles were eliminated, resulting in a sample of 220 articles/theses.

Finally, in a third interaction, the aim was to narrow down the sample by searching for keywords in English using the Boolean operators AND and OR—“crowdfunding AND Portugal OR Portuguese”.

It should be noted that the term “Portugal” and “Portuguese” were used in the design of the keyword matrix for this research, unlike the matrix used in the previous database (Google Scholar). This is due to the need and sense of objectivity to obtain greater specificity from scientific articles produced in Portugal on the subject under study. This interaction resulted in the creation of a sample of 25 articles/theses.

Finally, the abstracts of those 25 documents were read, where, in addition to contextualising the focus of the research, articles were selected that were based on research methods similar to the one applied in this study, as well as those that presented answers that supported the questions under analysis: this was mainly to check if crowdfunding is preceptive in the Portuguese context as an alternative form of financing.

Both stages, reading the abstracts and selecting them, resulted in 22 documents relating to the Portuguese context. These articles were then analysed in terms of their study methodology and conclusions. It should be noted that, as this is a topic that has not yet been explored in Portugal, few scientific studies have been published on the subject in this context—it was therefore decided to include masters theses as well as two doctoral theses (selected through direct online research, with the two documents already included in the final 22 documents), so that a more consistent view of the Portuguese context of crowdfunding could be summarised.

In summary, Table 3 is presented to succinctly outline the Research Protocol and article/document selection criteria, as detailed in Section 2.3. The research, conducted across the Google Scholar and B-On databases, aims to explore the crowdfunding phenomenon spanning the years 2014 to 2020. In the Google Scholar database, the investigation encompassed various crowdfunding methods/types such as “donation crowdfunding”, “reward crowdfunding”, “lending crowdfunding”, and “equity crowdfunding”, resulting in the selection of 54 documents within the field of Economics and Management.

**Table 3.** General summary of the data collection process.

Database	Method + Keyword + SEARCH STRING or (Boolean Operators)	Date	Field of Study	No. of Documents Selected
Google scholar	“Crowdfunding + donation crowdfunding + reward crowdfunding + lending crowdfunding + equity crowdfunding	2014–2020	Economics Management	54
B-On	“Crowdfunding AND Portugal OR Portuguese” boolean operator	2014–2020	Business and Management	22
Final database for RSL				76

For the B-On database, the research employed the Boolean operation “Crowdfunding AND Portugal OR Portuguese”, focusing on the realm of Business and Management, leading to the identification of 22 documents. Additionally, the final database for RSL is underpinned by a compilation of 76 selected documents. This diverse and comprehensive dataset serves as a robust foundation for the analysis and comprehension of crowdfunding.

The systematic literature review is supported by a total of 76 studies, published in different countries and different languages (Portuguese and English), between 2014 and 2020, which were obtained through two databases to support an overview of the object of study.

#### 2.4. Characterisation of the Studies

In this study, 76 scientific documents, 68 scientific articles and 9 masters and doctoral theses on crowdfunding were used and analysed in order to provide a current context and at the same time verify if it is considered an alternative financing tool. The supporting scientific documents were published between 2014 and 2020. After reviewing and classifying the articles in a way that is most consistent with the research topic, as well as identifying



the most solid classifications in the literature with the necessary adjustments made during the preparation of this research work, the taxonomy of the categories is presented, based on the taxonomy developed by [Paoloni and Demartini \(2016\)](#) and modified and improved by [Paoloni et al. \(2019\)](#).

This led to the modelling of the thematic areas and their categories, making them more compatible and relevant to the sample and the research questions.

In the first thematic area, “Research Focus—Concepts (A)”, five categories were defined to comprehensively address crowdfunding types, investor behavior, success/failure factors, contextual analysis, and alternative forms of financing.

The second area, “Research Method (B)”, explores how methodologies vary over time, with categories such as systematic literature review, qualitative, quantitative, and mixed methods.

The third area, “Geographical Area (C)”, identifies the geographical origin of authors and where the research was conducted, with categories including Europe, America, Africa and Oceania, Asia, and comparative study.

The fourth area, “Innovation Focus (D)”, aims to understand the evolution of crowdfunding as a relatively new field of study, exploring second-generation innovation concepts, democratization of the marketing process, and positive influence on innovative products.

These categories were developed to better align with research questions, providing a comprehensive approach for analyzing the various documents in the database.

As a result of this modification process, detailed modeling was carried out for the four thematic areas and their categories, with a more detailed presentation in [Table 4](#).

**Table 4.** Thematic areas and categories.

Thematic Areas and Categories		
Research focus—concepts (A)	A1—Crowdfunding types, functionalities and platforms	This category includes, for example, articles that report on the various types of crowdfunding, their nature and how they work. It also looks at the most studied platforms and the type and process of crowdfunding they represent.
	A2—Investor behaviour	This category includes contributions that deal with the subjective elements of individuals, their behaviour as investors, their willingness to invest, as well as the choice of which project to invest in.
	A3—Success and/or failure factors of crowdfunding projects	It includes contributions dealing with value drivers in the presentation of crowdfunding projects, and their impact on their success or failure.
	A4—Analysing the crowdfunding context	All contributions that describe and analyse crowdfunding in socio-economic, demographic, socio-cultural and legislative contexts.
	A5—Alternative forms of financing	It includes all contributions dealing with crowdfunding as an alternative form of financing for companies. This category includes, for example, works that highlight the difference between the crowdfunding system and other types of financing systems (such as the banking system).
Research method (B) Analysing the use of different methodologies over time.	B1	SRL (systematic literature review)
	B2	Qualitative
	B3	Quantity
	B4	Mixed method (qualitative and quantitative)

Table 4. Cont.

Thematic Areas and Categories		
Geographical Area (C) This variable identifies the geographical area of the research. Based on the taxonomy cited by <a href="#">Paoloni et al. (2019)</a>	C1	Europe (Austria, Belgium, Denmark, Iceland, Finland, France, Germany, the Netherlands, Norway, Poland, Sweden, Switzerland, Greece, Italy, Portugal, Spain, Turkey, and the United Kingdom)
	C2	America (Canada, United States of America, Brazil and Argentina)
	C3	Africa and Oceania (South Africa, Australia and New Zealand)
	C4	Asia (China, Japan, Korea, Singapore, India and Russia)
	C5	Comparative study (comparative research between two or more countries)
Focus on Innovation (D)	The aim of this thematic area is to see where the development of the concept and dimension of crowdfunding is going. Research focusing on innovation is a relatively new area of study. <a href="#">Callaghan (2014)</a> presents crowdsourcing and crowdfunding as a model of social innovation. <a href="#">Mollick and Robb (2016)</a> examine if crowdfunding democratises commercialisation and therefore the realisation of innovations. The study by <a href="#">Stanko and Henard (2016)</a> reveals that crowdfunding can have a positive influence on innovative products by producing ideas together with the crowd.	

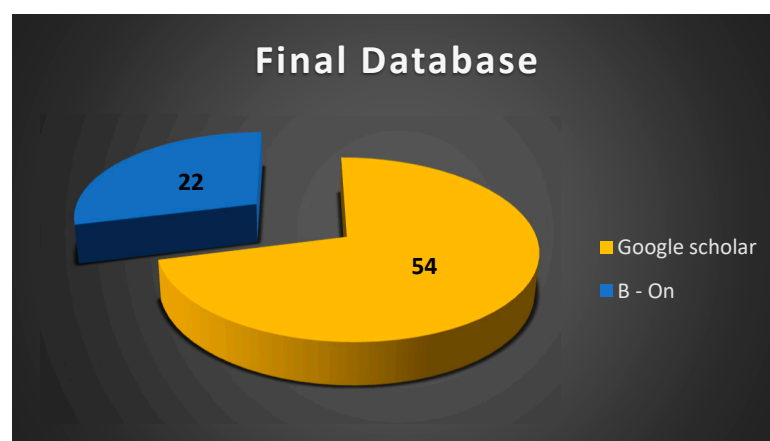
### 3. Results

Starting with a characterisation of the studies selected and included in this systematic literature review, it should be noted that a total of 76 studies were used, 89% of which were published articles and 11% were masters dissertations and doctoral theses. The aforementioned results can be observed in Table 5 in more detail.

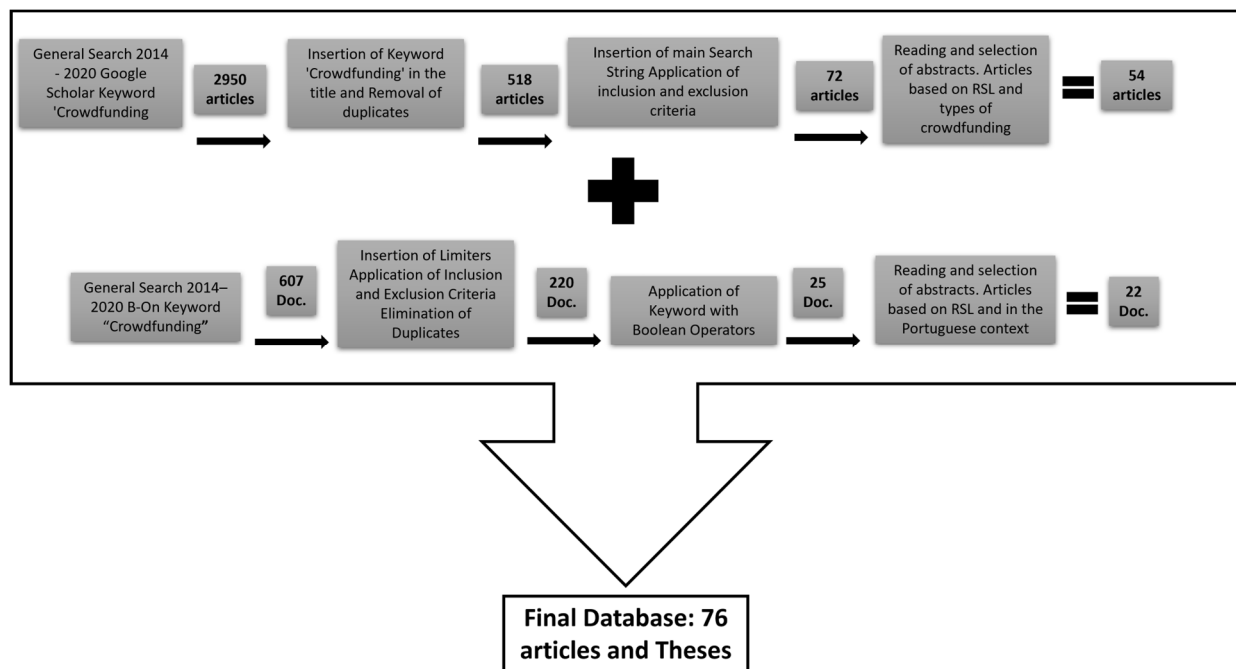
Table 5. Type of publication—studies.

	%	Number of Documents
Articles	89%	68
Masters dissertations and doctoral theses	11%	9
	100%	76

Based on the final database obtained, as depicted in Graph 1, comprising 76 selected articles/theses from the aforementioned two databases, we can see that during the years selected, diligent research is constant, with the highest number of publications in this sample being the years 2015 and 2018, as shown in the graph illustrated in Figure 2.



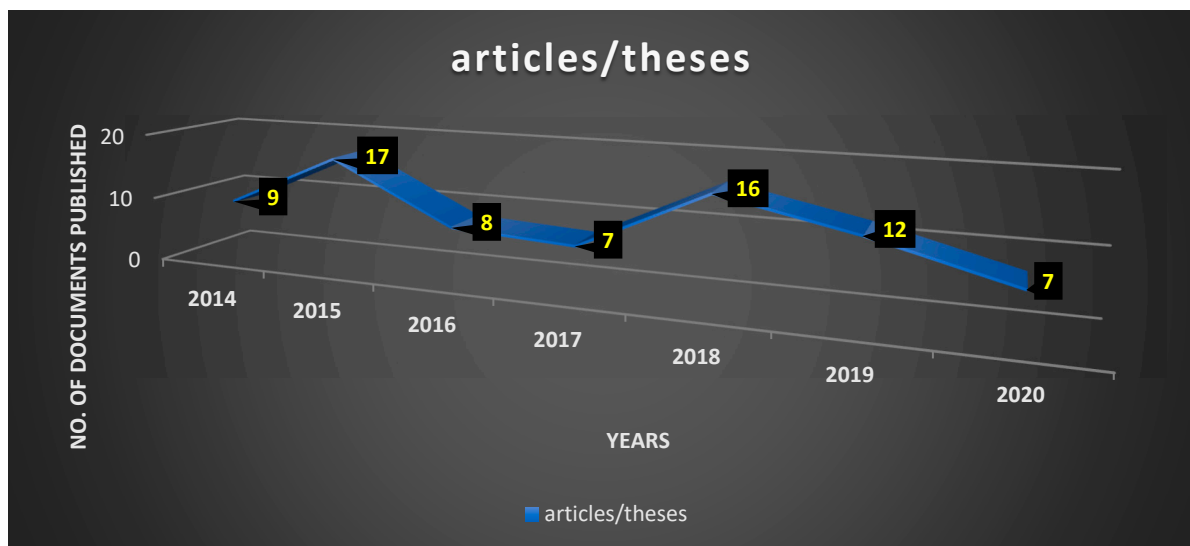
Graph 1. Distribution of all scientific documents by their respective databases—final database.



**Figure 2.** Overview of the article selection process, including number of articles per exclusion stage.

For its part, the literature has largely treated crowdfunding as a homogenous phenomenon, maintaining a broad research focus on it, which largely exposes the various crowdfunding models as a unit. Over time, the important differences between the four “crowdfunding business models” have led researchers to delve deeper into the phenomenon in discernible segments.

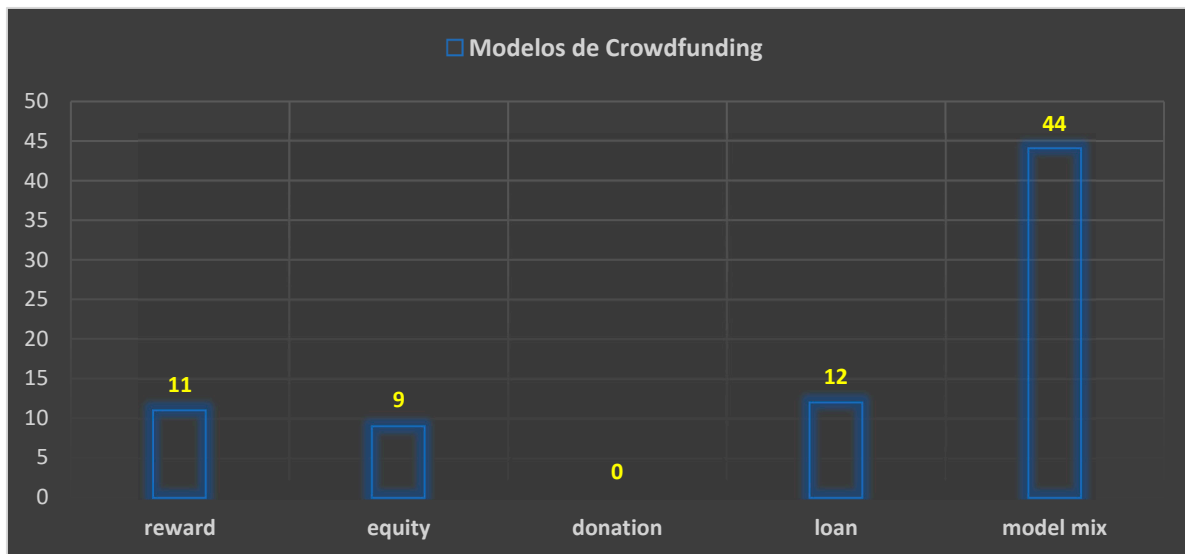
Graph 2 illustrates the distribution of all 76 articles in the final database based on their respective years of publication.



**Graph 2.** Distribution of all the articles in the final database, according to year of publication (own illustration).

The results show that the majority of research focuses on multiple crowdfunding models (mix), with 44 research papers out of a total of 76. This is followed by the loan model with 12 research papers and then reward crowdfunding with 11 papers. As for equity crowdfunding, it has 9 research papers. We can see that in Graph 3.

Finally, it should be noted that no documents relating to donation crowdfunding were found in the final database obtained.



**Graph 3.** Distribution of research focus based on the different crowdfunding models (own illustration).

### 3.1. Result Based on the Research Focus

Based on the analysis carried out, we can see that in the thematic area of the research focus, presented its results in Table 6, the most developed categories are category A2, which refers to investor behaviour, with a total of 17 supporting scientific documents, and category A5, which refers to alternative forms of financing, with a total of 22 supporting scientific documents.

Category A1 has a total of 14 supporting scientific documents, category A3 has 12 documents and finally category A4 has 11 supporting documents. It should be noted that category A5 represents a very important basis for analysis in this research study, as this category includes all the contributions that deal with or represent crowdfunding as a potential alternative form of financing for companies.

It delves into the differences between the crowdfunding system and other types of financing systems, such as the traditional banking system. It has attracted constant interest from researchers over the years because the number of research projects carried out in the years under study is very similar.

On the other hand, in the present analysis and refining of the data, it can be seen that this topic is the one that has been the most dynamic in terms of research, with the aim of demonstrating with greater rigour the advantages and disadvantages of crowdfunding as an alternative financing system to traditional financing systems.

Finally, it is through the results/studies observed in this A5 category that we intend to answer the sub-question (SubP1).

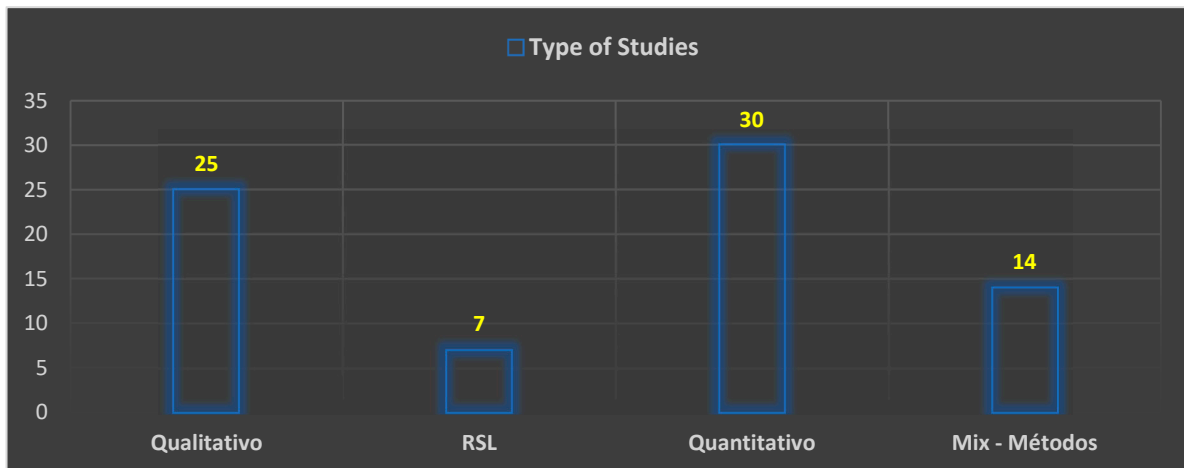
**Table 6.** Research focus—categories.

Year	A1	A2	A3	A4	A5	Total
2014	4	1	3	1	0	9
2015	4	3	1	2	7	17
2016	2	2	0	1	3	8
2017	1	2	2	1	1	7
2018	0	4	3	4	5	16
2019	1	5	3	0	3	12
2020	2	0	0	2	3	7
Total	14	17	13	11	22	76

### 3.2. Results Based on the Research Method

When we analyse the 76 selected studies as a whole, with regard to the thematic area (B) research methods, we see that in Graph 4, in terms of categories, 30 use the quantitative method, 25 present a qualitative study with several incursions into the “case study” type, and 14 present two types of study (mixed methods).

Finally, the studies presented as systematic reviews of the literature (SRL, 7 studies) are also mentioned and explained separately / differently, as they help to position this research.



**Graph 4.** Study research methods (own illustration).

Table 7 below shows the categories defined in this thematic area, giving a visualisation of the type of studies that make up the final database and the respective years of publication. In this way we obtain a general map based on the years selected in this research (2014 to 2020).

Thus, as can be seen, the prevailing method is quantitative (30 studies), adopted by around 40 per cent of the researchers/authors of the various scientific documents, with a higher incidence of publication during 2015. Articles using qualitative methods (B2) also had a higher incidence of publication in 2015 (around 7 studies), totalling 25 studies over the years analysed.

It should be noted that in this analysis of the results and the map of the results, it was decided to present specific studies that represent SLRs (systematic reviews of the literature—B1), so that we can obtain a position of the work done by researchers based on this methodology, and thus make a sort of comparison of the incidence of these studies, their results and future research proposals.

**Table 7.** Research methods by year.

Year	Qualitative (B2)	RSL (B1)	Quantitative (B3)	Mix—Methods (B4)
2014	4	0	3	2
2015	7	1	9	0
2016	5	0	2	1
2017	3	0	2	2
2018	5	3	5	3
2019	1	2	6	3
2020	0	1	3	3
Total	25	7	30	14



### 3.3. Result Based on Geographical Area

The aim of this segment of the analysis is to obtain a position on the dynamics of research on the subject of crowdfunding, in terms of the research studies carried out according to their origin. This view allows us to identify geographically where the most studies are concentrated, and to gain an improved insight into their thinking and the research they undertake.

The taxonomy developed by [Paoloni et al. \(2019\)](#) was used, and the following results were obtained:

As can be seen in Table 8, there are a considerable number of research studies on the subject of crowdfunding carried out in Europe, where the results stand out compared to the other geographical areas, with this geographical area C1 presenting a total of 30 studies, followed by the category of comparative studies C5, with 23 studies, and then America C2, with 19 studies. The countries that have dealt with the topic the least are Asia with three studies, and Africa and Oceania (1 study). The comparative studies category has two dedicated studies.

**Table 8.** Geographical area—by years of publication of studies.

Year	C1 Europe	C2 America	C3 Africa and Oceania	C4 Asia	C5 Comparative Studies	Total
2014	3	3	0	0	3	9
2015	9	1	0	1	6	17
2016	4	1	0	0	3	8
2017	3	3	0	0	1	7
2018	7	5	0	0	4	16
2019	2	6	0	1	3	12
2020	2	0	1	1	3	7
Total	30	19	1	3	23	76

The greater number of studies in geographical areas such as Europe and the Americas, as well as comparative studies that cover several countries, is certainly due to the greater knowledge and use of crowdfunding as an alternative source of finance.

At this level of analysis, we can also mention that the fact that these are developed (continents), highly technological and highly educated (schooling) areas, which also boosts the use of this alternative financing tool aimed at the “masses” (highly scalable). It should also be noted that 2015 and 2018 were the most “productive” years in terms of the number of papers produced in this study sample.

### 3.4. Result Based on Innovation Focus

In this fourth defined thematic area (area D), the aim is to verify the degree of innovation surrounding the concept of crowdfunding, and to this end we have analysed the final database to find the articles/theses that in some way study, present and support the criteria for emerging innovation in this type of crowdfunding. After carefully analysing the final articles selected, a table was drawn up in summary format with the scientific supporting thoughts, which was based on the focus of innovation in this research.

Research focusing on innovation is a relatively new area of study. [Agrawal et al. \(2013\)](#) found in their study that crowdfunding actions influence the rate and direction of innovation by increasing the total amount of funding available for new innovative projects. On the other hand, such actions can influence the direction of innovation, altering the way capital is allocated to new innovative projects. They conclude that it is possible that crowdfunding only changes the rate, but not the direction, of innovation, by increasing the total amount of funding.

[Medeiros \(2015\)](#) concluded that although innovative projects don not have a significant influx on the platforms (as cultural, musical and artistic projects do), they are easily funded,

which demonstrates their quality and the interest of investors in funding innovation in the country.

Mollick and Robb (2016) tell us that crowdfunding is exciting not only because of the innovation it enables, but also because it gives us the opportunity to consider that a more social and interconnected world can drive future innovation. They conclude that crowdfunding can help take the democratisation of innovation, entrepreneurship and business finance even further.

Crowdfunding offers innovation in the sense that before developing a product, an entrepreneur can test it with potential consumers. This allows entrepreneurs to use crowdfunding as a tool to select valuable projects and thus improve investment decisions, according to Strausz (2017).

The study by Bronzeri and Cunha (2021) aimed to assess the contribution of crowdfunding to the technological innovation (of product, service or process) of micro, small and medium-sized enterprises in Brazil. According to their results, financial constraints affect the innovation capacity of micro, small and medium-sized enterprises, and financing can be a determining factor for their innovation. The theoretical and practical implications of the research made it possible to identify that crowdfunding gives specific characteristics to innovation financing.

Tanja Jovanovic (2018) points out that in terms of focusing on innovation, the field of research is new. For the researcher, crowdfunding is becoming even more important for supporting start-ups or innovative products and can be seen as a process of collaborative innovation in the form of co-creation.

We are currently seeing a very interesting dynamic in the evolution and enhancement of innovation processes based on the crowdfunding process and its ramifications.

We have the issue of “smart contracts”, NFTs (non-fungible tokens), cryptocurrencies, and these new dimensions in the “virtual economy” have found a basis for support and development through the “Blockchain”. In this sense, Soares de Oliveira Nunes’ research (2020) aims to find out if this emerging technology, Distributed Ledger Technology (Blockchain), can help mitigate some of the problems associated with equity crowdfunding platforms or even add features and valences to them, making them more appealing to fundraisers and investors. They concluded that blockchain technology can create value on these platforms, and can mitigate or even solve some of the problems associated with this type of crowdfunding.

From the BDF (final database), we can infer that, of the 76 studies that support this research, 10 per cent (7 studies) represent results based on the innovation focus (D).

### *3.5. Result for the Main Question P1: What Is the Evolution of the Literature on Crowdfunding and What Are the Research Focuses in Portugal?*

In this systematic literature review, there are several studies that compare the different types of crowdfunding that exist, as well as their strengths and weaknesses.

Based on the analysis carried out, we can conclude that the majority of the studies in the final database interact with research of multiple crowdfunding models, with a total of forty-four research documents supporting this conclusion.

From the studies included in this systematic literature review, 89% are published articles, while 11% correspond to masters theses and doctoral dissertations. The predominant period, with the highest number of supporting documents for the Systematic Literature Review (SLR), spans the year 2015, with 17 documents, and the year 2018, with 16 documents.

The analysis reveals that, in the context of the thematic area related to the research focus, the most developed categories are A2, addressing investor behavior, with a total of 17 scientific support documents, and A5, referring to alternative forms of financing, presenting a total of 22 scientific support documents. Category A1 has 14 scientific support documents, A3 encompasses 12 documents, and A4 has 11 support documents.

The results indicate that the majority of research focuses on multiple crowdfunding models, totaling 44 research documents out of 76. Next, the lending model is addressed in 12 research documents, followed by reward crowdfunding with 11 documents. As for equity crowdfunding, 9 research documents were identified.

However, the most important thing in this analysis is to analyse the results of thematic area 1—the focus of the research and its five categories, helping to demonstrate through them the possible support for the main question (P1)—“How has the literature on crowdfunding evolved and what are the research focuses in Portugal?”.

In response to the question posed, we found that A2—investor (consumer) behaviour—is the most explored category in the thematic area of the research focus, which is supported by 17 scientific documents obtained as results, from which supporting arguments were extracted to validate and answer question P1.

### 3.5.1. Investor Behaviour—A2

For Belleflamme et al. (2014), the entrepreneur asks individual investors for seed capital or a pre-order, in exchange for a future share of the profits. The authors emphasise the need to build a community that ultimately enjoys the additional private benefits of participation to make crowdfunding a viable alternative to investor- or lender-based financing from banks, business angels or even venture capital.

In another study, also using a quantitative approach and covering Portugal and Brazil, the researchers were concerned with understanding the loyalty behaviour of Brazilian and Portuguese consumers in relation to crowdfunding (Bernardes and Lucian 2015b).

According to Bernardes and Lucian (2015b), the results showed that reward crowdfunding is a great stimulus, in that for each financial contribution made on a crowdfunding platform, the consumer will be entitled to a reward proportional to their contribution.

The authors also found, as they demonstrated in a previous study (Bernardes and Lucian 2015a), that the co-creation of value is an important factor in loyalty behaviour. Another determining factor in consumer loyalty to cultural products, which is emphasised in this study, is the feeling of belonging.

Green et al. (2015) empirically investigated entrepreneurs' perceptions of benefits in the early stages of a project. They first introduced a thematic analysis of interviews, which resulted in a new conceptual framework of benefits. The result of this investigation through interviews indicated that investor involvement is broader and more diverse from simple initial investment to business development.

Mollick and Robb (2016), focus their research on the possibility that crowdfunding can democratise the commercialisation of innovation as well as finance it. These authors point out that by giving a voice to people who would otherwise never be able to reach finance, let alone provide it, new opportunities are created for new businesses, innovations and a new wave of investors. Furthermore, by involving the crowd in financing and supporting projects, these crowdfunding platforms can reduce the need for inefficient intermediaries. Bernardino et al. (2016) also studied the phenomenon of crowdfunding, realising that it is an innovative and increasingly attractive source of funding for social projects. Having realised that this type of financing was still little explored in the literature on the subject, the researchers sought to assess the role of crowdfunding in the initial phase of social projects in regional development.

This research compares the characteristics of the projects available on the Portuguese Social Stock Exchange platform with others that do not use this type of financing. It finds that the use of the Portuguese Social Stock Exchange platform was linked to the geographical location of the social enterprise, as well as its geographical location. They also found that social ventures located in rural regions are more likely to use social crowdfunding platforms than social ventures located in urban areas; and that social ventures operating at a local or regional level are the most likely to use crowdfunding to finance social projects.

The starting point of Strausz's (2017) analysis was the idea that demand uncertainty provides an economic justification for projects supported through reward crowdfunding.

By reducing demand uncertainty, crowdfunding promotes well-being and complements traditional business financing, with a focus on controlling moral hazard.

Joo Kitano (2017), through his study, aims to advance knowledge and understanding about the evaluation of investor decision-making in relation to equity crowdfunding. The results of his study suggest, firstly, a better description of investor characteristics. Secondly, it verifies and validates that the collective trust variable represented by equity crowdfunding platforms plays an important role in explaining investors' trust intentions.

Simeoni and De Crescenzo (2018) have also addressed crowdfunding in the cultural sector, associating the ecomuseum with this type of financing. These authors introduce a very interesting and, for us, new concept of civic crowdfunding, linking tourism, sustainability, energy resources and renewable resources. This study argues that crowdfunding can be used as a way of financing an ecomuseum, given its social and cultural importance, since it (the ecomuseum) is seen by the researchers as an instrument that aims to share the interests of a region and protect its cultural, historical and environmental heritage (Simeoni and De Crescenzo 2018). And so they seek to demonstrate that crowdfunding that supports an ecomuseum has several benefits such as: attracting cycling tourists; increasing the number of investors; and attracting the interest of the municipality, associations and companies (for-profit and non-profit), in order to increase the effects of sustainability based on economic, social and tourist factors.

Kuppuswamy and Bayus (2018), sought to increase empirical understanding of the dynamics of the investor (sponsor or supporter) throughout the project funding cycle, using the international crowdfunding platform Kickstarter as the basis for their study. Their research concludes that investor support throughout the project's funding cycle is not uniform. In turn, investors are more likely to invest in the first and last weeks, compared to the middle period of the funding cycle. They also found that investors are less inclined to contribute when a project reaches its goal, and that support from family members tends to occur in the first week and shortly before the end of the project. The authors conclude in their research that as the final goal is reached, support for the project increases.

An important factor that can influence investor behaviour is the security of the platforms and the existing regulatory system, Hornuf and Schwiendbacher (2018). According to the researchers, the evidence also shows that investors base their decisions on the information provided by the entrepreneur, as well as on investment behaviour and the comments of other investors.

Through a literature review Hoegen et al. (2018) provided an integrated view of investor decision-making in crowdfunding, highlighting the systematic differences between decision-making in crowdfunding and decision-making through traditional financing (such as venture capital or bank loans), as well as the drivers of these differences. And in this conclusion, they validate that the cognitive characteristics of investors and the context in which the investment decision is made seem to strongly influence decisions.

The concept of crowdfunding is currently a dynamic that has been strongly verified and validated in countries that are economic powerhouses, such as the United States, Germany or China.

Yang et al. (2019), developed a study based on a concept that incorporates the theories of social exchange and the customer/investor value perspective, to explore the main determinants of the public's intention to invest in crowdfunding projects in China.

The results of the research indicate that communication, shared values and perceived benefits have a positive association with investor confidence and directly influence their intention to finance projects of this nature, while this association for perceived risks is negative.

Based on the types of crowdfunding, reward crowdfunding is perceived by many scholars as a very popular channel for raising investment for entrepreneurs.

The study by Shneor and Munim (2019) analyses contribution behaviour in reward crowdfunding by applying the Theory of Planned Behavior (TPB). The results show that an

extended TPB model is valid for reward crowdfunding and also indicate that both financial contribution intentions and information sharing intentions predict behaviour.

Cornelius and Gokpinar (2019) suggest that entrepreneurs are increasingly using reward-based crowdfunding to finance their innovation projects through a large number of investors/customers. The study indicates that investor involvement goes beyond providing capital, and that greater investor involvement increases funding success.

Dai and Zhang (2019) provide field evidence of consumer/investor action to help creators reach their funding goals. They find that projects raise funding faster just before reaching funding goals. This effect is amplified by consumers' "social" motivation and when the project creator is an individual person.

Alegre and Moleskis (2019) also study donation and rewards crowdfunding through a systematic literature review. In this review, they note that most of the work on the subject aims to understand the behaviour of the crowd, using the crowd itself as the level of analysis, or inferring the behaviour of the crowd from what happens to the projects within the platforms. These two approaches complement each other and reveal various aspects of the crowd's behaviour, motivations and complexity.

### 3.5.2. Types of Crowdfunding, Functionalities and Platforms—A1

Agrawal et al. (2014) verify if economic theory, in particular transaction costs, reputation and market design, can explain the rise of other types of crowdfunding, thus verifying how equity crowdfunding can maintain or evolve. The fact that crowdfunding can affect social welfare and the rate and direction of innovation, and regulation can play an important role in how entrepreneurs and investors use this tool, can lead to innovation and the evolution of platforms and the formation of new cultures. New markets for trusted intermediaries are likely to emerge.

Bretschneider et al. (2014), through their research, developed a theoretical model based on the related literature, which was supported and validated by empirical research into equity crowdfunding. They found that the motivation of investors (crowd) to invest in start-ups through equity crowdfunding is based on a financial return perspective.

Mollick and Kuppaswamy (2014) point out that reward-based crowdfunding can support more traditional entrepreneurship. In this study, they also suggest that crowdfunding provides many other benefits beyond the money raised itself, providing access to, and supply of, potential customers, media, future collaborators and external financiers.

Like the previous authors, Pedroso (2014) was also interested in the phenomenon of collaborative financing—however, he presents a study that is totally different from all those mentioned here, as it shows a business plan for a crowdfunding platform in Portugal, "Nós Queremos!", which is dedicated exclusively to musical events. The study is pertinent because it shows how important this type of financing is for the cultural area, the arts (specifically music) and Portugal. The study argues that tourism and events are sectors that play a central role in the country's socio-economic development and that the platform aims to help promote and stimulate these sectors, thus contributing to the creation of added value for Portugal. The author finds that the project is viable, both in the market and financially, and the results emphasise that it is sustainable and can therefore be implemented.

There are some researchers who present a considerable number of studies of the subject of crowdfunding, such as Hornuf and Schwienbacher (2015), who, in one of their landmark studies ("The emergence of crowdinvesting in Europe: With an in-depth analysis of the German market"), present the development of the Internet-based crowdinvesting market in the European region since its inception in 2007. The results, produced using data from Germany, show that investor participation (crowdfunding) is higher when the request for the participation amount is reduced. In the researchers' view, these results are useful for entrepreneurs who need to choose the best crowdfunding platform or portal to publicise their project.

Belleflamme et al. (2015), pursue two directions in their research. Firstly, they present facts about crowdfunding and debate its emerging context in the economics and manage-



ment literature. Several points of the research link to broader research in economics that is relevant to understanding crowdfunding platforms. In turn, they also address the external effects between groups and within the group, and the asymmetric information that exists on crowdfunding platforms.

The influence of idea creativity and hedonic value on project funding success can have varying impacts on project funding success, depending on the type of crowdfunding, according to [Schulz et al. \(2015\)](#). For-profit projects did not show a significant relationship between the creativity of ideas and success. However, hedonic value does influence the success of projects in this type of crowdfunding, as they can be driven by economic motivation.

The first study in the Portuguese context to test and verify the determinants of the amounts raised on the most relevant crowdfunding platform in Portugal, PPL, was carried out by [Mourao and Costa \(2015\)](#). In this study, 247 successful projects were analysed, and the researchers concluded that more recent years show lower values in terms of the total amount raised per project. A longer period of time, a longer duration of the announcement, as well as a greater number of investors, tends to increase the total amount raised. It is very interesting to conclude that there are no statistically significant dimensions to “value per investor”.

Research by [Gleasure and Feller \(2016\)](#), suggests that crowdfunding presents genuinely new ideas and behaviours as opposed to a migration of established practices into a new domain. Distancing themselves somewhat from previous studies, [Dushnitsky et al. \(2016\)](#), in realising that existing studies on crowdfunding focused mainly on the US, turned their attention to the evolution of this phenomenon in Europe, more specifically in 15 European countries: United Kingdom; France; Germany; Netherlands; Spain; Italy; Belgium; Austria; Finland; Sweden; Portugal; Denmark; Ireland; Greece and Luxembourg. In their opinion, the phenomenon of crowdfunding and its evolution vary from country to country and the same is true of their platforms. According to this study, there are countries in which different types of crowdfunding stand out, whether in the form of rewards, capital, loan or donations ([Dushnitsky et al. 2016](#)).

Crowdfunding covers different business areas, projects, products or causes, depending on the type of crowdfunding to be developed on the different platforms that support them. Through this case study, [Mariani et al. \(2017\)](#) aim to gain a deeper understanding of the opportunities presented by crowdfunding on a platform dedicated to the wine sector (Fundovino), and in turn to provide entrepreneurs with some guidelines for carrying out a successful campaign. The results of this research suggest that crowdfunding is ideal for the wine sector and that wine producers can exploit the financial and marketing opportunities offered by this type of financing.

[Chemla and Tinn \(2019\)](#), developed a model in which reward crowdfunding allows companies/projects to obtain a reliable proof of concept early in the process. This process creates a valuable real option, because investors and companies only invest if expectations about demand are high enough. The likelihood of a successful campaign decreases with the size of the sample.

In his study, [Nunes \(2020\)](#) addresses the future of equity crowdfunding, extrapolating on the use of blockchain technology (Distributed Ledger Technology) to create value on these platforms. The aim of this research is to find out if this emerging technology can help mitigate some of the problems associated with equity crowdfunding platforms, or even add new features and disruptive valences. In short, the results show that the possibility of using a decentralised ledger to record the transactions that take place on the equity crowdfunding platform, where there is the ability to upload and execute “smart contracts”, makes blockchain technology create value in this crowdfunding model.

Based on the context of this research and the questions to which answers are sought, the research by [Bernardino and Santos \(2020\)](#) stands out in supporting the answer to the main question (P1). It aims to provide a deeper understanding of crowdfunding as an alternative financing mechanism among young people who present themselves as

potential Portuguese entrepreneurs. The results show that young entrepreneurs have a potentially moderate knowledge of crowdfunding, meaning they are unable to explore all of its business models, and specifically those related to investment (credit and capital). In their study, they also validate several benefits of using crowdfunding, ranging from the financial advantages, the communication of the project to a wide audience, and the additional feedback from potential investors/customers.

### 3.5.3. Success and/or Failure Factors of Crowdfunding Projects—A3

For Kuti and Madarász (2014), the motivations of the investor/supporter, referred to as “crowdfunders”, are different from the objectives of traditional investors. For them, the development of this specific financial innovation has brought several impactful results and pointed to the importance of quality signals and social effects in shaping investor behaviour.

Personal networks and the quality of the project are intrinsically associated with the success of crowdfunding campaigns, just as geography is related to the type of project proposed and to successful fundraising. These are the conclusions of Mollick (2014), who also found that the vast majority of founders appear to fulfil their obligations to backers. However, more than 75 per cent deliver products later than expected, and this degree of delay is correlated with the amount of funding a project receives.

Soveral (2014) was confronted with the scarcity of studies on crowdfunding in Portugal, not least because it is a relatively recent phenomenon. Her study sought to understand which variables or business attributes influence a crowdfunding campaign in Portugal, what amount of capital is feasible for a company to raise in Portugal through crowdfunding, and what kind of projects most easily attract the attention of the Portuguese public and their contribution (financial or otherwise). Soveral (2014) found that different categories of projects have different levels of popularity with the Portuguese public, and that the timeframe chosen to raise funds also influences the success of the project. In Portugal, too, great importance is attached to the capital to be raised, so the smaller the amount needed, the more likely it is that the process will be viable.

Crowdfunding is a potentially disruptive way of financing new ideas, businesses or projects. It has provoked intense research by academics and legislators to understand where this type of financing stands.

In their research, Cordova et al. (2015) detected factors that explain the success and failure of fundraising, finding that increasing the funding target set for the project is related to a lower probability and extent of success. They also found that the duration of the project increases the chances of the campaign being successful.

For Roma et al. (2017), both the informative nature of the campaign and the considerations related to access to funding through venture capital affect the entrepreneur’s choice and their decision to carry out a campaign. The researchers also validate that entrepreneurs’ preference for crowdfunding is stronger than for venture capital.

e Silva and Vieira (2017) also carried out a study in Portugal that puts crowdfunding in the context of entrepreneurship. The authors explain that in recent years many entrepreneurial projects have emerged, mostly created by students, the unemployed, but also by workers who did not own their own company or have the capital to create one.

Crowdfunding has emerged as the best financing option for some of them and for these reasons, they selected six crowdfunding projects created in Portugal to help them understand which factors contribute to the project’s success. The results they found show that communication is essential in a crowdfunding campaign, noting that the business idea or product promoted on the platform is a new campaign and therefore the message and objectives of the project need to be understood by the public. It is also very important in terms of marketing the initiative. Market testing is also fundamental and makes a decisive contribution to the success or failure of the project.

Using a conceptual model in which they adapt the results obtained from the general literature on crowdfunding, Petruzzelli et al. (2018) aim to ascertain the implications of crowdfunding for sustainability based on five dimensions: the creator of the project,

the supporters, the campaign itself, the crowdfunding platform, and the results of the crowdfunding campaigns. The researchers conclude that for the creators (entrepreneurs) the importance of establishing effective communication with potential funders/investors, from the preparation of the campaign through to the activities is fundamental, since the supporters of sustainability-orientated campaigns are more exposed to uncertainty, given that this type of initiative often does not provide direct and immediate consumer benefits.

Crowdfunding for sustainable projects is a reality, and has a revealing dynamic that responds to environmental, social and economic issues. [Hörisch \(2018\)](#), in his analysis, uses linear and logistic regression models to analyse the drivers of the financial and marketing success of sustainable crowdfunding projects. In his study, only a few growth-orientated projects can be found among the sustainable crowdfunding projects. According to [Bento et al. \(2019\)](#), it is still at a disadvantage when seeking funding from traditional capital providers, but the sustainable issue positively influences the outcome of a given campaign, and the average survival rate is more than 70 per cent after one year of operation. For this researcher, a higher percentage of female co-founders increases the chances of success during and after the crowdfunding campaign.

According to [Cumming et al. \(2019\)](#), their study reveals that the empirical tests carried out support the “All—Or—Nothing” (AON) hypothesis, which forces the entrepreneur to take greater risks and incentivises the investor (crowdfunder) to guarantee more capital, allowing entrepreneurs to set higher goals. On the other hand, the hypothesis that AON is a sign of compromise for entrepreneurs conceives a balance based on quality and more innovative projects with higher success rates.

[De Luca et al. \(2019\)](#), based on a systematic review of the literature, identify a preliminary taxonomy, which is grounded in an integrative model of the benefits of crowdfunding for a successful and sustainable entrepreneurial initiative. For the authors, this article can support the administrators of crowdfunding platforms in the design of value-added tools designed to improve the attractiveness and management of their users’ campaigns.

Project creators and small business promoters should have extensive social networks, disseminate a captivating narrative and create high-quality content, such as videos and interactive technological resources, as well as include various levels of rewards with value for potential financiers, according to [Rabaça \(2018\)](#).

#### 3.5.4. Analysing the Crowdfunding Context—A4

Crowdfunding offers a new way for creatives to share their work and acquire resources, and achieve their campaign goals through their social network. [Hui et al. \(2014\)](#) identified three main challenges, which include understanding network resources, activating their connections and expanding reach. As a result, they developed design improvement implications for support tools to help project entrepreneurs better understand their social network and leverage it.

In turn, [Santos \(2015\)](#) analyses how this new financing mechanism can be introduced into the Portuguese legal system in order to finance our commercial companies. This study observes that the enormous demands of the corporate legal system do not facilitate access for commercial companies seeking crowdfunding. However, the legal admissibility of equity crowdfunding could generate the economic growth that the country needs, helping to solve the financing problems of small- and medium-sized companies.

A study carried out by [Medeiros \(2015\)](#) in Portugal aimed to analyse the role of crowdfunding in the development of innovative projects in Portugal. The researcher found that crowdfunding is still very little known and little explored in Portugal. However, in recent years, starting in 2011, which coincides with the appearance of the first platforms, the concept has grown visibly and the trend is for this to continue, especially with legislation coming into force and regulating this phenomenon. [Medeiros \(2015\)](#) concluded that the contribution of crowdfunding to the development of innovative projects translates into a new or complementary form of financing, particularly for projects that are at an early stage.

The potential for fraud and abuse in illegal fundraising is widely used in our current context, with attenuated restrictions (Baucus and Mitteness 2016). These researchers mention concerns about Ponzi schemes, which are businesses that continually bring in new investors in order to use their money to pay returns to previous investors. In their view, they offer a recommendation, which was also advised by the President of the United States, “trust, but verify”. This is how they believe it should be applied to equity crowdfunding, in the form of certifying crowdfunding platforms as legitimate organisations that raise money for legal business ventures.

Among the different crowdfunding models, equity crowdfunding in particular has grown in popularity, according to Pereira (2017). Several European Union Member States have various sets of rules, and Portugal has recently joined.

According to the researcher, Portugal has been able to devise a capital crowdfunding scheme that is capable of guaranteeing its sustainable growth as a viable financing alternative for the development of small- and medium-sized enterprises, without jeopardising investor security.

Vismara (2018), provides evidence on the attractiveness of sustainability-orientated projects in equity crowdfunding. According to the author, although sustainability orientation does not increase the chances of success or of attracting “professional” investors, such as funds or large investment companies, it does boost and attract a greater number of personal investors.

Crowdlending and crowdfunding are growing rapidly in certain EU Member States. However, the different legal requirements in these states has hindered the development of cross-border crowdfunding. According to the researchers Zetzsche and Preiner (2018), European regulators could facilitate a single European crowdfunding market based on the “MiFID light” framework which, according to them, could act as the basis for cross-border crowdfunding. Through their study, they reject the idea that the risks of crowdfunding are mitigated due to the relatively low size of investor contributions.

Through a systematic literature review based on 113 scientific contributions published between 2012 and 2017, Mochkabadi and Volkmann (2018) conducted a descriptive analysis of research on equity crowdfunding. In this study, relevant contributions were categorised into five different perspectives: capital market, entrepreneur, institutional, investor and platform. In an analysis of the socio-economic, socio-cultural and innovative context, Bronzeri (2018), in developing his study, evaluated the contribution of crowdfunding to technological innovation of products, services or processes, whether for micro-, small- or medium-sized companies in Brazil. She concluded that “financial” crowdfunding campaigns have more positive and attractive indicators than non-financial crowdfunding campaigns.

From the perspective of Social Network Theory, Lynn et al. (2020) investigated the characteristics and discourse of the public, based on an analysis of the hashtag (#crowdfunding) on the Twitter platform, through a database of 2,732,144 tweets published during a calendar year. The results suggest that the platforms, as well as their users and followers, play a fundamental role in the creation of the network, playing a direct role in the dissemination of information, further increasing the prominence of the campaign.

In the literature, the intersection of crowdfunding and sustainability has been analysed to some extent. Böckel et al. (2020) analyse the extent to which current research focuses contribute to the potential of crowdfunding for sustainable development.

The field of research has a relatively short history, but already shows signs of growing maturity, but reveals imbalances between the relevance attributed to various aspects in research and in practice, according to Böckel et al. (2020).

### 3.5.5. Alternative Forms of Financing—A5

In order to conduct an analysis aimed at obtaining a conclusive answer regarding SubP1, the outlined results are presented through category A5, which, in a certain way, seeks answers from the 22 supporting scientific documents.

Schulz et al. (2015), in his quantitative study, examines the underlying benefits and disadvantages of crowdfunding from the perspective of traditional financing versus financing through crowdfunding in Germany.

To explore this topic, a questionnaire was sent to both groups, containing questions about the general characteristics of the entrepreneurs and their perception of the advantages and disadvantages of crowdfunding. The results of the questionnaire show that both types of entrepreneurs have similar opinions. The biggest concern of all entrepreneurs regarding crowdfunding is the costly management of the investor. However, the most relevant benefit for crowdfunding entrepreneurs is attracting public attention, while traditional financing entrepreneurs say that fundraising is more relevant to them than public attention.

Crowdfunding is a financing alternative to traditional bank loans. According to Bouncken et al. (2015), in their conceptualisation of the principle, it is open to participation by everyone, whether private individuals or economic actors. This funding is leveraged through digital platforms based on web 2.0, and is gaining more and more scientific attention.

Microloans obtained through crowdfunding are an important source of financial capital for entrepreneurs. The researchers Allison et al. (2014), based on the theory of cognitive evaluation, developed a very pertinent study of microloans obtained through a crowdfunding platform for more than 36,000 entrepreneurs from 51 countries, with the aim of evaluating entrepreneurial motivation. They concluded that investors/lenders respond positively to narratives that highlight the venture as an opportunity to help others, and less positively when the narrative is framed as a business opportunity. According to Cognitive Evaluation Theory, investors' intrinsic motivation to provide capital is undermined when entrepreneurs are focused on the future extrinsic rewards related to the loan.

Crowdfunding is a new trend that has unique characteristics and the potential to provide a new form of financing for small businesses, according to Yang and Zhang (2016).

Bruton et al. (2015) base their study on existing theoretical foundations to develop a broad framework for considering emerging alternatives in corporate finance. This framework is based on the proposition that innovations in the area of corporate finance have arisen as a result of imbalances between the supply and demand of capital and as a consequence of improvements in technology. With the emergence of these financial innovations, ownership and governance considerations arise (see Bruton et al. 2015).

"With the reduction in public funding, it is time to turn to new fundraising tools, such as Crowdfunding Platforms", Traquinas (2015). Entrepreneurs are called upon to publicise the vision, mission and objectives of their projects and clearly capture the attention of investors in order to establish a relationship of trust and transparency in accountability. The researcher's main objective is to study the impact of crowdfunding on the financial sustainability of projects.

Corporate finance, on the other hand, focuses on conventional sources of funding, such as business angels, banks and venture capitalists. Bessa (2015), develops a study that analyses crowdfunding and seeks to demonstrate that it is a viable source of funding for Portuguese startups. His main conclusion is that crowdfunding is a viable funding alternative for Portuguese startups; he also finds that the most important success factors for a crowdfunding campaign are the preparation and organisation of the campaign on the platform, the choice of platform, the network of contacts (social media) and interaction with the investment community.

For economists, the recent rise of crowdfunding is surprising, and a new market for financing and supporting early-stage projects has emerged. Microfinancing and crowdfunding, although not synonymous, have similar goals and are a great lever for entrepreneurs to raise funds from the masses. The vision of Attuel-Mendes (2016) also suggests that the combination of these two concepts can lead to an acceleration of poverty eradication.

Based on the analysis by Moritz and Block (2016), there is no comprehensive overview of crowdfunding in the economic literature. So the researchers provide an overview of the crowdfunding literature, focusing on the main actors (capital raisers, capital providers and intermediaries) and present important research questions for future lines of enquiry. The fo-



cus of the study was on the need for start-ups to find funding alternatives, especially in their initial (seed) phase of development. According to the researchers, the crowdfunding market is characterised by strong information asymmetries between the various players. Quality signals and the existence of social networks can reduce these information asymmetries.

In 2016, Fonseca et al. published their study analysing crowdfunding as a financing tool for investigative journalism in Portugal.

The results of this study show that the entrepreneurial capacity of journalists is reduced, and that there is a need to boost the curricula of higher education in Portugal with areas such as entrepreneurship and economics.

In their concluding remarks, Fonseca et al. (2016) suggest that the particular economy of crowdfunding in Portugal, as in other countries, can present itself as a real alternative to traditional financing models.

Babich et al. (2020) studied how this new development in entrepreneurship, crowdfunding, interacts with more traditional sources of finance such as banks or venture capitalists. According to them, conventional wisdom suggests that raising money through a crowdfunding campaign is always positive for both the entrepreneur and venture capital. However, they show in their analysis that conventional wisdom is incomplete because it does not take into account the entrepreneur's interactions with venture capital and banking investors.

Through a comparative analysis between loan-type crowdfunding and the financial sector, Soares (2018) aims to verify which option is more advantageous from the point of view of the financier/investor and from the point of view of the promoter/creator, in the Portuguese context. The results obtained show that, based on the criteria considered, from the point of view of the financier/investor it is more profitable to invest in loan-type crowdfunding than in banking sector products. In turn, from the promoter/creator's point of view, it is more beneficial to apply for a loan through the banking sector than through crowdfunding.

According to Jovanovic (2018), crowdfunding is an innovative financial instrument that is continuously gaining importance in the scientific, research and development context. There are various studies analysing and supporting the phenomenon of crowdfunding as a financial instrument. Martínez-Climent et al. (2018), based on the various impulses of the Fintech revolution, focus their study specifically on crowdfunding that generates financial returns (i.e., peer-to-peer lending (P2P) and equity crowdfunding (EC)).

His results show that research of peer-to-peer lending was first published in 1994, and of equity crowdfunding in 2013. The evolution of the literature in this area leads him to conclude that this is an emerging topic, since it is gaining importance as a financial instrument for companies and deserves the attention of regulators.

There are several works that provide and enhance an academic basis for understanding these new financial options, and for integrating diverse strands of literature on emerging innovations in corporate finance.

Kgoroadira et al. (2018), examined the American loan crowdfunding website, and found that intellectual property and information attributes such as the number of bids, are important and even determining in the assigning of "credit" financing.

Financing SMEs is a challenge, and it must be solved in order to empower them to succeed. According to Blakstad and Allen (2018), current financial solutions are limited and expensive.

But global networks bring global opportunities and should allow communities to fertilise not only ideas, but also funding and market opportunities. Blakstad and Allen (2018), explore the challenges faced by small- and medium-sized enterprises (SMEs), focusing on the issue of financing. For them, technology, especially blockchain, offers greater market opportunities, with the injection of more trust, freedom and simplicity (clarity). These technologies, combined with other emerging investment opportunities offered by fintech, will change the meaning and form of financing, probably moving more towards a peer-to-peer or P2P approach, to the detriment of traditional banks and/or other financial institutions.

The new and robust advances in communication and information technology systems have enabled financial innovations such as crowdfunding, giving rise to new business models (Abreu et al. 2019).

With a specific focus on the small and medium-sized enterprise (SME) dimension, Paoloni et al. (2019) intend to verify and deepen the main thematic areas of the scientific literature on the phenomenon of crowdfunding within the SME dimension, through a systematic literature review. As a result, the researchers show that from a scientific point of view, the treatment of the crowdfunding phenomenon is strong developing in several areas. However, the area dedicated to SMEs shows residual interest and study, with weak results.

It is conceivable that crowdfunding could potentially replace some of the conventional functions of bank financing. For Xu et al. (2019) the choice of optimal financing and pricing strategy depends critically on market uncertainty, word-of-mouth and the initial investment requirement. Bank financing is preferable only when market uncertainty is in the middle range. Recently, there has been an alternative vehicle for obtaining funds more efficiently than traditional financing, such as bank loans.

Qalby et al. (2020), demonstrate and support this assertion, through their research supported by literature, and show the potential of crowdfunding as an alternative to traditional financing, in the agricultural context—patchouli production.

Adjakou (2020), studied the factors that influence the adoption of crowdfunding as a substitute for the formal financial system in the Republic of Benin. He found a significant positive correlation between each variable, and also underlined the importance of implementing a solid and sustainable crowdfunding system. For the researcher, special attention should be paid to the regulatory framework to be developed.

The relationship between the development of crowdfunding and the model and evolution of the financial system, according to Waszkiewicz and Kukurba (2020), does not show a clear division of financial systems between Western European countries. According to the researchers, the development of the financial market, combined with a high level of innovation and digitalisation of the economy, favours the development of financial innovation in the form of crowdfunding.

#### 4. Conclusions and Potential Future Lines of Research

The aim of this study is to find out how the literature on crowdfunding has evolved and what the focus of research is in Portugal. Based on the conducted analysis, it is evident that the most studied thematic area in Portugal, based on the developed categories, is A2, which is related to investor behavior, and stands out with 17 supporting scientific documents, and A5, which refers to alternative forms of financing, and has 22 supporting scientific documents. Category A1 has 14 documents, A3 has 12, and category A4 has 11 supporting documents.

This study not only sheds light on entrepreneurs' behavior but also provides valuable insights that will help to enhance crowdfunding practices and enable entrepreneurs to efficiently achieve their financial resource-raising goals. Another relevant factor is entrepreneurs' choice of the platform. Mollick's study (2014) shows that "Choosing a crowdfunding platform" is a critical decision for entrepreneurs. Factors such as platform reputation, support base, and offered funding type also influence this choice.

In the context of this RSL, a motivational basis for crowdfunding is observed, including financial accessibility, trust in the investor community, platform ease of use, competitive fees offered by platforms, and alternatives to bank financing, to name a few examples. In support of the developed sub-question (SubP1), which aims to determine whether crowdfunding is considered to be an alternative or complementary financial mechanism to traditional banking in Portugal, the results clearly suggest the complementary nature of crowdfunding. The system is not perceived to be a direct threat to the traditional financing system, but is instead viewed as an additional avenue to identify investment opportunities, validate projects, and facilitate access to traditional financing.

It is noteworthy that category A5 represents a crucial analytical basis for this research study, as it encompasses all contributions addressing or representing crowdfunding as a potential and alternative financing form for businesses.

From the results of the analysis in support of the main question P1, we conclude that, based on the focus of the investigation, the most developed categories are those relating to alternative forms of financing and investor behaviour. It is also important to note that the “alternative forms of financing” category is the same one that directly answers the second research question, which asks if crowdfunding is seen as an alternative form of financing.

In short, it can be concluded that, based on the research focus on investor behaviour, the security of the platforms and their existing regulatory system is an important factor that can influence it (see [Hornuf and Schwienbacher \(2018\)](#)). According to the researchers, the evidence also shows that investors base their decisions on the information provided by the entrepreneur, investment behaviour and comments from other investors.

[Hoegen et al. \(2018\)](#) provide an integrated view of investor decision-making in crowdfunding, highlighting the systematic differences between decision-making in crowdfunding and decision-making through traditional financing (such as venture capital or bank loans). They validate that the cognitive characteristics of investors and the context in which the investment decision is made strongly influence decisions.

In turn, both the theoretical framework and the systematic literature review carried out show that the practice of crowdfunding is still quite recent, especially in the Portuguese context. Proof of this are the few platforms that exist in Portugal, as well as the studies that seek to investigate this phenomenon.

Analysing the future from a Portuguese perspective, it is believed that crowdfunding will grow and develop more and more, and will also capturing the attention of scholars from the most diverse areas of knowledge—not only economic and financial, but also management, social and cultural.

Investor behaviour is one of the most interesting topics for scholars to delve into, and it is the one that, to a certain extent, produces the most results because it is a fundamental “characteristic” for the functioning of crowdfunding, in terms of its positive or negative influence.

In addition to being the main focus of investigation for this study, the category referring to alternative forms of financing is also the one that directly answers the second question.

Crowdfunding projects can vary greatly in terms of their size, idea concept and usefulness. They can be small artistic projects, the development of new products or specific services, where the main objective is to obtain collective funding through “seed capital”, as an alternative to traditional venture capital investment ([Schwienbacher and Larralde 2010](#)).

Crowdfunding is a rapidly spreading exercise in corporate finance. It is “an open invitation, mainly via the Internet, to provide financial resources, either in the form of a donation or in exchange in the future for a product or some form of reward” ([Belleflamme et al. 2010](#)).

According to [Belleflamme et al. \(2014\)](#), new companies often face difficulties in attracting funding during their initial start-up phase, which means that many projects start without funding, mainly due to the various difficulties involved in attempting attract investors.

For [Bruton et al. \(2015\)](#), loan-based crowdfunding (also referred to as crowdlending) is comparable to a bank loan, as investors act as lenders and receive a predefined interest rate within a certain period of time. However, it is also a way of facilitating access to the capital market for small investors ([Paolantonio 2014](#)).

According to the Massolution Report, there is a need to change government policies; the ways in which companies around the world innovate; and the role of financial institutions, who must adapt in order to keep up with this new trend (cit. in [Medeiros 2015](#)).

An excellent and valuable investment and financing tool like crowdfunding could be lost in a current global context where access to bank credit is increasingly difficult ([Trabulo 2017](#)).

In short, crowdfunding, based on the various supporting studies and their conclusions, is considered to be an alternative financing system in the global context. As [Hornuf and](#)

Schwiebacher (2018) point out, equity crowdfunding is a new form of business financing, of investment in this new financial market.

While it has evolved in terms of scientific traction at the international level, it is clear that at the national level there is still little interest in, and scientific research into, the subject.

Limitations may arise due to the limited availability of specific data on crowdfunding in Portugal, affecting the breadth and depth of this study. In turn, the rapid evolution of the crowdfunding landscape may translate into outdated data, thus impacting on the ability to offer insights into the latest trends.

The aim of this study is to consolidate and synthesise up-to-date knowledge on crowdfunding in Portugal, providing a comprehensive overview of the state of theory in this area. It is also important to highlight and categorise the most prominent research streams in the crowdfunding context, providing a framework for future studies and theoretical debates.

Offering evidence-based strategic guidelines for Portuguese entrepreneurs looking for alternative financing is one of the objectives, as well as contributing to the discussion around public policies by highlighting specific trends and challenges of crowdfunding in Portugal.

Numerous potentialities arise for future lines of research. We know that since crowdfunding is directly linked to technology, to innovative systems supported by the web and to specific financial programming—Fintech, it could make it possible to interconnect or even record all the transactions made on a crowdfunding platform via the decentralised blockchain. In this way, it will enhance and promote transparency, facilitate supervision and eliminate intermediate costs, leaving you in full control of the transaction. This could be a disruptive new financing system.

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