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Crowdfunding as a Form of Funding for Businesses in the Culturally-Changing Global Economy: A Literature Review¹

ABSTRACT

Objective: The main purpose of the crowdfunding literature review was to find an answer to the following research questions: do scholars investigating related topics take into account the increasing importance of crowdfunding as a form of funding and resulting economic consequences for SMEs? Is the relevance of crowdfunding in reducing the funding gap taken into consideration? Do studies involve analyses of economic consequences associated with the development of crowdfunding for the banking sector? The research questions we have asked refer to the existing state of knowledge about the extent of crowdfunding-related studies underway. The validity of the subject is due to the fact that crowdfunding is a new form of raising capital in the Culturally-Changing Global Economy.

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Methodology: Once we analysed the literature review methodologies, we decided on a state-of-the-art analysis since this method allows to establish the facts for the research and subsequently to propose a new perspective and new directions of research. Due to the necessity to select the right texts on crowdfunding, selection criteria in terms of quantity and quality were defined (scoping review). We reviewed the literature on crowdfunding published between 2010 and 2018 using the following databases: Ebscohost, ProQuest, ScienceDirect, Web of Science, Scopus, and BazEkon.

Findings: In literature on the subject, the significance of crowdfunding for businesses at early stages of their growth is emphasized. However, there are very few publications directly about SMEs. Among the articles analyzed, the relevance of crowdfunding in reducing the funding gap and financial exclusion has been emphasized. However, our search for articles about the said phenomenon produced a very small number of such articles, which – considering quite a large number of articles in total – clearly means that this topic is rarely discussed and studied. The aspects associated with the relationships between the banking sector and crowdfunding are discussed in a majority of the articles under analysis, but there is still no empirical research in this area.

Value Added: The literature review carried out allowed us to identify research gaps in such important areas for crowdfunding as funding for the SME sector and relationships between crowdfunding and banking. As opposed to other similar research projects, we do not omit methodological constraints affecting the final results of studies and we suggest solutions allowing for a more in-depth analysis of articles.

Recommendations: A suggested further direction of research concerns the use of the theory of enterprise funding sources in studies of the role of crowdfunding when compared to other forms of fundraising (the theory of alternative and transactional costs) by SMEs. When planning further research, the following needs to be done: 1) To carry out comprehensive research, since all the studies carried out so far were only fragmentary. It particularly applies to relationships between SMEs, the banking sector, and crowdfunding. 2) To extend research according to criteria that allow sources discarded in this research to compare findings.

Key words: crowdfunding, literature review, SME, banking sector

JEL codes: D26,F65,G21.

Introduction

Over the recent years, regulatory bodies and some scholars have taken an interest in the dynamic development of crowdfunding understood as a form

of funding, but also as a special form of investment in various projects and ventures, outside the regulated capital exchange market, via online social media platforms (Agrawal, Catalini & Goldfarb, 2011). Though introduced in the USA², crowdfunding was met with interest by developed markets in Europe and by developing markets, including primarily China. The value of the global crowdfunding market in 2012 amounted to USD 2.7 billion, and 3 years later – to USD 34.4 billion (Statista, 2015). The largest market in terms of value is the one of Asia-Pacific, which outpaces Europe and both Americas. In 2015–2016, in Asia-Pacific, an annual growth rate amounted to 134%, which to a great extent resulted from the growth of the Chinese crowdfunding market. The US market noted in that period of time a 22% increase, which is a consequence of increasing saturation, whereas Europe, which is the smallest one when compared to the last two regions, increased by 85% annually (Ziegler et al., 2018). The crowdfunding development dynamics were surely affected by the 2008 financial crisis, and the financial market condition prompted economic operators to look for funding beyond the traditional sources of financial intermediation (Harrison, 2013).

International organisations consider crowdfunding not only as an important source of funding for SMEs, but also as an effective alternative to funding offered by banks; those organisations emphasise the significance of crowdfunding at early stages of development of economic operators (OECD, 2016, 2017, World Bank, 2013, Jenik, Lyman, & Nava, 2017) and propose it as a solution to financial exclusion in developing countries (Jenik et al., 2017). It is noteworthy that the OECD, while analysing the SME sector, pointed out that in 2014 crowdfunding – as a form of funding for businesses – played a marginal role in raising capital when compared to the banking sector (OECD, 2016). In its next report for 2017, the OECD still claimed that crowdfunding is underestimated in numerous countries, but its dynamic development over the recent years may be interpreted as crowdfunding being an important

2. Overdraft in the current account / credit on credit cards

source of funds for economic operators, particularly in the context of equity crowdfunding (OECD, 2017). A response to the increasing relevance of crowdfunding as a form of raising capital by businesses were new regulations aimed at ensuring protection of transaction parties and further fostering of crowdfunding development. In 2017, the European Crowdfunding Network (ECN, 2017) reviewed the regulations, and Europe and the USA came to a conclusion that over the last five years, 11 EU Member States plus the USA implemented separate laws on crowdfunding.

The Jumpstart Our Business Start-ups Act (JOBS Act) of 5 April 2012 was supposed to encourage, by relaxing numerous national laws and regulations, the funding of small businesses in the USA precisely through crowdfunding. According to Congressman Jeff Merkley, Title III, known also as the CROWD-FUND Act, "would provide start-up companies and other small businesses with a new way to raise capital from ordinary investors in a more transparent and regulated marketplace. Low-dollar investments from ordinary Americans may help fill the void, providing a new avenue of funding to the small businesses that are the engine of job creation" (SEC 2015, p. 6). The US Securities and Exchange Commission promulgated Title III effective as of 16 May 2016 – the final rules and regulations allowing for crowdfunding.

To establish a convenient legal framework for crowdfunding development in Europe, the European Commission and the European Parliament undertook certain legislative initiatives because they noticed the potential of crowdfunding in raising capital by SMEs, thus being a crucial determinant of economic growth (European Commission 2014, European Commission 2017, European Commission 2017a). In its hitherto resolutions, the European Parliament also highlighted the importance of crowdfunding for SMEs and the need for dialogue with state supervisory authorities (European Parliament 2015, European Parliament 2016).

In December 2014, the European Securities and Markets Authority published its opinion on investment crowdfunding where it emphasised the necessity to make this form of funding for SMEs universal as well as the

lack of threat to the stability of the financial sector. In February 2015, the European Banking Authority published its own opinion on crowdfunding as a loan agreement where it noted the need to consolidate the law within the Eurozone and the EU, thus reducing credit risk, which is a prerequisite for necessary crowdfunding development (ESMA 2014, ESMA 2015, EBA 2015).

Therefore, the said legislative initiatives show that European institutions are in accord as to the justifiability of development of crowdfunding as a new form of funding for SMEs. This is also confirmed by a European Commission's application filed in March 2018 for adoption of the European Crowdfunding Service Providers for Business Regulation which is entirely about crowdfunding, where it was argued that crowdfunding in Europe may be an alternative to bank credits that presently are the main source of external funding for SMEs, especially at early stages of their operation (European Commission, 2018). New regulations would govern crowdlending and investment crowdfunding, excluding reward-based crowdfunding because it has already been regulated. The said application takes into account the stakeholders' needs determined in the course of the studies carried out by the European Commission since 2014, among which lifting regulatory barriers was found the most important. Crowdfunding improves businesses' accessibility to capital markets, decreases costs of looking for investors and borrowers, and it may also help increase the number of international transactions within the EU through implementing legal regulations common for the EU.

The significance of crowdfunding needs to be considered particularly from the perspective of the funding gap that substantially affects SMEs. Funding gap is described in the literature on the subject as a phenomenon involving exclusion from or difficulties in sourcing external commercial funding encountered by certain groups of financially reliable economic operators, chiefly when it comes to capital for development, i.e. for investments. This results from the legal and organisational circumstances under which financial market entities operate, since such entities just do not offer financial means or such means are not made available. The gap is present virtually in all the

economies: those poorly developed ones and those fastest developing ones, and it affects first and foremost small and medium businesses. The funding gap has spread very far, which is proved by the availability of programmes for improvement of access to external funding organised in the USA, Japan, EU Member States, but also in Kenya, Jamaica, the Dominican Republic, and India (PARP, 2010). A majority of the economies (80% of the OECD economies and 90% of the non-OECD economies) have limited access to funding for SMEs. Around 30% of the businesses surveyed in OECD countries agreed that there exists a funding gap in debt financing, and 70% of them agreed that there exists a funding gap in equity. This is confirmed also by research carried out in the EU whose findings reveal that despite EU funding there is a considerable funding gap as far as SMEs are concerned (Bernat, 2015; OECD, 2013). Taking into account the relevance and extent of the problem, it is essential to improve the requirements for and increase the opportunities of raising capital from external sources, and especially to ensure better access – under transparent and acceptable terms – to various (diverse) forms of funding. There are highlighted the establishment of innovative SME funding models and the development of crowdfunding.

Having regard to the aforementioned regulatory activities constituting a response to grassroots initiatives undertaken in the market and practical possibilities of employing crowdfunding in micro-finance, we believe there is a need for an analysis of research projects and studies tackling the issue of this dynamically developing phenomenon. The more so that international institutions point not only to substitution of a kind, but also to competition between the banking sector – as creditors for SMEs – and crowdfunding. Hence, the following questions arise: Do scholars investigating related topics take into account the increasing importance of crowdfunding as a form of funding and resulting economic consequences for SMEs? Is the relevance of crowdfunding in reducing the funding gap taken into consideration? Do studies involve analyses of economic consequences associated with the development of crowdfunding for the banking sector?

To answer them, we reviewed the literature on crowdfunding published between 2010 and 2018.

This article is divided into 5 parts which present the subsequent stages of our research. In the first part, based on a literature review, we decided on a methodology and then – having established the definition of crowdfunding in order to select the right articles and papers, properly analyse them, and summarise results of our studies – we developed a model of relationships between crowdfunding, SMEs, and banking. In the second part, we presented the methodology of our research. The third part consists in a preliminary analysis of literature performed on the basis of criteria adopted for 5 databases; and the fourth part involves an analysis of selected scientific articles in terms of our research goals. The literature review carried out allowed us to identify research gaps in such important areas for crowdfunding as funding for the SME sector and relationships between crowdfunding and banking. In the fifth part, we presented conclusions we arrived at in our literature review, suggesting directions of further research. As opposed to other similar research projects, we do not omit methodological constraints affecting the final results of studies and we suggest solutions allowing for a more in-depth analysis of articles.

1. Literature Review – Selection of a Methodology

The research questions we have asked refer to the existing state of knowledge about the extent of crowdfunding-related studies underway. The best way to identify whether or not and to what extent scholars acknowledged the importance of crowdfunding and its consequences for SMEs and the banking sector is to review the literature on the subject. Literature may be reviewed in various ways. The availability of online databases and calculation tools allow for multidimensional bibliometric studies in international and interdisciplinary terms. As argued by Mulrow (1995), a literature review is justified by being “a fundamentally scientific process” which helps us learn what

we already know and what we still do not know, what works and what does not work (Booth, Sutton & Papaioannou, 2012, p. 4). A literature review may be aimed at identifying research gaps in our knowledge of a given subject, research conflicts, weaknesses of research outcomes, a need for further studies or at systematising our knowledge of a dynamically developing area of research. Booth, Papaioannou, and Sutton highlight various methods of reviewing literature, namely: 1) critical review, 2) integrative review, 3) literature review, 4) mapping review, 5) meta-analysis, 6) mixed-studied review, 7) overview, 8) qualitative systematic review, 9) rapid review, 10) scoping review, 11) state-of-the-art review, 12) systematic search and review (Booth et al., 2012). They all vary from each other in terms of extent of research (from comprehensive studies through highly detailed ones), summary of findings (tabular one, narrative one) or assessment of the phenomenon researched (or lack of such an assessment). However, notwithstanding a methodology adopted, a literature review is not a cure-all for all the problems, but it presents possibilities and helps make decisions.

Once we analysed the literature review methodologies, we decided on a state-of-the-art analysis since this method allows to establish the facts for the research and subsequently to propose a new perspective and new directions of research (Booth et al., 2012; Grant & Booth, 2009). Due to the necessity to select the right texts on crowdfunding, selection criteria in terms of quantity and quality were defined (scoping review). In order to properly identify such selection criteria, we need to answer the questions: Who? What? How? (Ibrahim, 2008). A literature review is supposed to tell us whether studied are SMEs and the banking sector (Who), if studies are about the development of crowdfunding as a form of funding for SMEs (What), and whether literature on crowdfunding includes analyses of financial implications for said entities (How); or, in other words, how the development of crowdfunding affects SMEs and the banking sector.

Crowdfunding, as the name itself indicates, consists in a crowd funding a given social project or a business venture. The idea of crowdfunding un-

derstood as accumulation of certain resources by a social group in order to implement a project is known for hundreds of years³, and raising funds and resources by numerous people has been driving the growth of local communities for a long time. However, what makes crowdfunding these days stand out is the use of the Internet, which means that project funding does not have to be necessarily of local nature, and the final outcome of fundraising may be recognised and used globally. Hence, it can be argued that crowdfunding is an Internet-based method of raising capital, of pooling small amounts of money from a lot of individuals. In a broader perspective, crowdfunding is defined as a special financial system, market or ecosystem of a kind (Ramos, 2014, p. 3). It follows from the definitions of crowdfunding proposed in 2011–2015 that it may be defined according to various criteria. As proposed by Valanciene and Jegeleviciute, when reviewing various sources and then adopting 'action' as an important criterion, crowdfunding is defined as follows: "a process of, an approach to, a strategy of capital formation or a funding mechanism" (Valanciene & Jegeleviciute, 2013, p. 40). On the other hand, Alegre and Moleskis (Alegre & Moleskis, 2016) emphasise that at the present level of crowdfunding development and taking into account a considerable number of definitions of crowdfunding, it is crucial to identify the core elements of crowdfunding which at the same time are described in the literature on the subject most frequently.⁴ These include: crowd, funding, alternative finance, models, purpose, and online. Concurrently, the authors attempt to form their own definition that would contain all of the foregoing (Alegre & Moleskis, 2016). In a more detailed context, crowdfunding may be defined by highlighting entities or tools and methods or processes in crowdfunding. In this case, identified are primarily parties to a crowdfunding transaction, i.e. an entity proposing a project; an online platform; and a crowd supposed to help raise funds for the project. Thus, entities proposing a project

3. An often-cited example is raising funds for the Pedestal of the Statue of Liberty (Gierczak et al., 2016).

4. The definitions of 10 authors whose publications are cited most often from among 82 selected for analysis.

are referred to as entrepreneurs, funding seeking entrepreneurs or fundraisers (e.g. Belleflamme et al., 2014; Belleflamme et al., 2015), borrowers (Burtch et al., 2014), founders (Mollick, 2014) or social ventures (Meyskens & Bird, 2015). On the other hand, entities offering funds for a project are referred to as investors (Hornuf & Schwienbacher, 2018), funders (Agraval et al., 2014), lenders (Burtch et al., 2014) or backers (Dushnitsky & Marom, 2013).

It follows from our review of the definitions of crowdfunding that there are numerous definitions and though they do not overlap every time, they consist of 3 core elements: a crowd, a platform, and fundraising entities (SMEs). It means that crowdfunding lies in the middle of SMEs and investors (a crowd). Investors who have been keeping their money in banks thus far take advantage of new investment opportunities which crowdfunding offers, and SMEs use such opportunities more often. Crowdfunding, by becoming a new element of the financial market exactly in the role of a financial 'middleman', may affect the relationships between SMEs, investors, and banks because each of those groups has a choice to use crowdfunding. The approach demonstrated corresponds to a system approach where a system is perceived as a set of mutually interacting elements (Mele, Pels & Polese, 2010; Bertalanffy, 1972, 1967).

2. Research Methodology

Step 1

Preliminary studies were performed using the following databases: Ebscohost, ProQuest, ScienceDirect, Web of Science, Scopus, and BazEkon. First, we cross-referenced the phrase 'Crowdfunding' in order to identify a number of publications which allowed to establish how much scholars are interested in crowdfunding and whether further research will involve all of the databases or whether it will be sufficient to limit ourselves to selected databases. Our research was carried out for years 2010–2018. We chose that period of time to examine, since crowdfunding began to grow past 2008 and the first papers about it were published only in 2010.

Step 2

Another criterion was a source type. Due to the assumption of our research being of scientific character and of the up-to-dateness of sources, they were selected on the basis of the articles reviewed. Books, non-reviewed articles, conference materials, and other articles and papers were excluded. A preliminary analysis of the databases also allowed to identify the English language as a criterion for the selection of publications because, as it turned out, a majority of articles are published in English; publications in other conference languages are much less frequent.

Step 3

Subsequently, in the case of all the databases, the studies were based on the following phrases: 'CF+SME', 'CF+Entrepreneurship', 'CF +Innovation', 'CF+ Funding Gap', 'CF+Financial Exclusion'. The phrases 'CF+SME', 'CF+Entrepreneurship', 'CF +Innovation' were used to establish a number of articles about SMEs. The phrases 'CF+Banking Sector' and 'CF+Banking Industry' allowed to narrow down the selection of articles to those analysing relationships between crowdfunding and the banking sector, whereas the phrases 'CF+Funding Gap' and 'CF+Financial Exclusion' – to those analysing connections of funding gap and financial exclusion with crowdfunding. Since we took a typically financial approach to our studies, we discarded articles about areas other than management, business, economy, and finance. In addition, discarded were articles repeated in individual databases. Then, we analysed the structure of Scopus database and performed detailed analyses of ProQuest, Science Direct, and WoS databases characterised by the largest number of publications in the area researched.

Step 4

In the next step, we reviewed abstracts.

The occurrence of a key word does not guarantee that the article discusses a topic relevant for the studies; that is why the review of abstracts actually allowed to discard such articles.

Step 5

The last step consisted in verification of the body of the remaining articles.

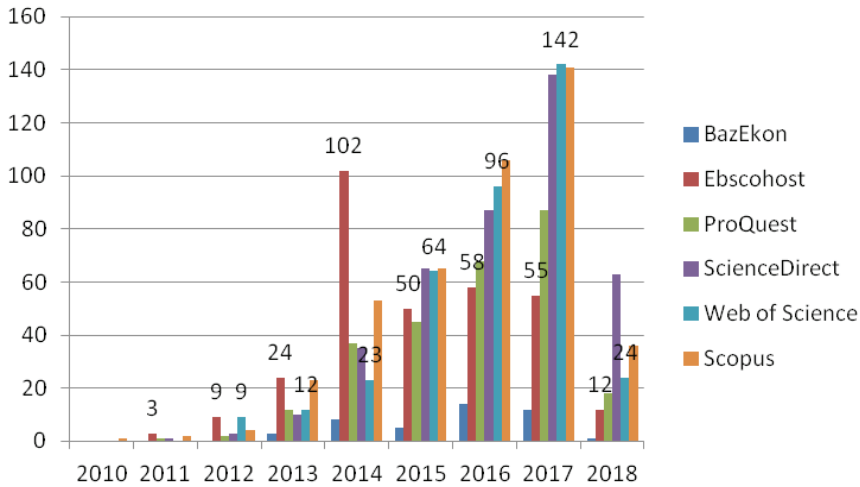
The research in question involved articles with the largest number of quotations, which were published in Impact Factor journals. The adoption of the said criteria allowed us to find articles which guaranteed high quality. In order to establish how many articles published in journals with an Impact Factor above 2 are available in the databases, we created a list of journals that publish articles on crowdfunding (Table 2). An Impact Factor equal to 2 was chosen on the basis of the lowest factor among the journals whose articles were made available in the databases. The only and indispensable deviation from this rule was ProQuest database because a number of articles suitable for the proper analysis, given the phrase criterion adopted, was low, and 3 articles from ProQuest database were published in journals with Impact Factors equal to 1.67 and 1.32. This research criterion allowed us to identify not only those journals which published articles about crowdfunding, but also those which were not available in the databases under analysis.

Therefore, bearing in mind this methodological constraint, we assumed that at the research stage described here there would be analysed only articles from the databases and the next research area would include articles available exclusively at websites of journal publishers. The criteria adopted take into account the requirements regarding time restrictions, the achievement of the research goals, and the possibility to carry out research step by step in a transparent manner.

3. Review of the Selected Articles

In accordance with the criteria adopted, by searching the phrase 'Crowdfunding' in individual databases while analysing only reviewed articles, we found out that in 2010–2013 a number of articles published fell within a range from several to about 20 articles annually (Figure 2).

Figure 1. Number of articles about crowdfunding in 2010–2018* in the selected databases



* Since 15 March 2018

Source: own research.

2014 was a breakthrough year as that number nearly doubled. In 2015 and 2016, a regular, almost 50% increase in that number was noted when compared to last year, reaching the highest figure in 2017, i.e. 141 articles. We noticed that the growth dynamics were not identical for all the journal databases under analysis. Undoubtedly, Web of Science, Scopus, and ScienceDirect are leading databases and they are followed by ProQuest and Ebscohost. The results we have obtained indicate that crowdfunding as an area of research interest is still evolving. In addition, the preliminary studies revealed that related literature reviews were carried out to a limited extent.

The authors are aware of 4 literature reviews where crowdfunding is analysed extensively. Feller, Gleasure, and Treacy (Feller et al., 2013) carried out quantitative research (metatriangulation) involving the definition and models of crowdfunding, types of theories, empirical studies vs non-empirical ones without taking into consideration specific subject of such studies. They recommend technical solutions in respect of the studies carried out,

i.e. a greater number of research methods, use of quantitative methods, and an increased level of empirical verification.

A literature review carried out by Moritz and Block (Moritz & Block, 2016) involved exclusively Google Scholar database where 127 articles were selected and divided into groups according to 3 criteria, namely: (1) articles focused on those raising funds through crowdfunding, (2) articles focused on capital providers (investors), and (3) articles focused on the so-called 'middleman' between the parties to an agreement, that is on a crowdfunding platform. Having regard to the purpose of this paper, of utmost importance was to review literature on the subject from the perspective of fundraisers. Here, it was most important to focus on factors motivating economic operators to engage in crowdfunding, success determinants, and legal aspects of crowdfunding. Despite an increase in the number of publications about crowdfunding, the authors emphasised that scientific research on crowdfunding is still in the initial phase, whereas quantitative studies based on empirical market data are still scarce.

On the other hand, Karima Bouaïss, Isabelle Maque, and Jérôme Méric performed a bibliometric analysis of 97 scientific articles published in 19 various journals rated highest in International ABS Ranking (Bouaïss et al., 2016). The purpose of the literature review was to determine a number of articles presenting positive, normative, and empirical research. The basic conclusions included: thematic focuses, particularly on crowdfunding campaign success determinants; a limited number of empirical studies, and the need to perceive crowdfunding as something more than only a management method. A literature review from the perspective of the management theory was carried out by Inéz Alegre and Melina Moleskis of the University of Navarra by analysing 3 databases: Web Of Knowledge, Ebsco Business Science Complete, and ScienceDirect based on 82 articles (Alegre & Moleskis, 2016).

An interesting and newest approach has been proposed by A. Stasik and E. Wilczyńska (Stasik & Wilczyńska, 2018); they reviewed the literature on crowdfunding in terms of research methods employed and pointed out their strengths and weaknesses. By singling out 3 approaches, i.e. platform

studies, studies based on secondary sources, as well as qualitative and survey-based studies, the authors highlight further, most probable directions of research. These include primarily: (1) comparative analyses of the dynamics of platforms across countries, regions, and platform types; (2) exploration of data collections through more sophisticated information methods and technologies; (3) theoretical research based on quantitative analysis of coded variables; (4) qualitative research of new communication technologies developed for crowdfunding, including the dynamics of communication between investors and fundraisers.

The review presented relates to various periods of time, from 2013 through 2018. Each of the reviews was focused on various aspects, from research methodologies, through definitions of the new phenomenon of crowdfunding, to analyses of crowdfunding campaign success determinants and factors motivating the parties concerned. The authors of the literature reviews pay attention to the evaluation of crowdfunding through the prism of the management method, and they also see the need to add new approaches to studies. It means that predominantly, this new form of funding for SMEs is perceived one-sidedly; what is more, none of the cross-sectional studies under analysis mentions research carried out taking the financial approach, which we propose as an interesting research area. It is true that the articles tackle such issues basing on theories relevant in terms of management of company finances as agency theory, signalisation, information asymmetry or game theory, but there arises a question whether or not scientific analyses were performed with regard to finances of a business as well as whether or not possible relationships between SMEs, the banking sector, and crowdfunding were identified. In addition, having regard to the definition of crowdfunding as a form of funding innovative ventures and to the number of publications about crowdfunding, there arises a question to what extent has been researched the possibility of using crowdfunding as a form of funding for SMEs in the context of the funding gap in that sector as well as in the context of financial exclusion.

The preliminary studies revealed that it is reasonable to carry out more detailed research, even the more so since some of the databases we used in our studies were also used by such scholars as Karima Bouaïss, Isabelle Maque, Jérôme Méric or Alexander Moritz.

Table 1. Number of articles depending on the phrase type

Journal database	CF	CF+SME	CF+ Entrepreneurship	CF+Innovation	CF+Banking Sector / Banking Industry	CF+Funding Gap	CF+ Financial Exclusion
Ebscohost	313	5	2	31	0	0	0
ProQuest	270	16	64	29	3	1	1
ScienceDirect	402	10	45	97	1	0	0
Web of Science	370	6	67	75	3	1	1
Scopus	431	5	62	68	2	1	1
BazEkon	43	2	1	6	0	0	0
Total	1829	44	241	306	9	2	2

Source: own research based on data of 15 March 2018.

To answer the aforementioned questions, we searched for articles in 6 scientific databases: Ebscohost, ProQuest, ScienceDirect, Web of Science, Scopus, and BazEkon using the phrases 'Crowdfunding +SME' and additionally with the notions 'Entrepreneurship' and 'Innovation', followed by 'Crowdfunding+Banking Sector', 'Crowdfunding+Funding Gap', and 'Crowdfunding+Financial Exclusion' (Table 2). We found a total of 1829 articles on crowdfunding. A majority of them were under 'Crowdfunding+Innovation' and 'Crowdfunding+Entrepreneurship', and when it comes to the relationship between crowdfunding and the banking sector or the analysis of crowdfunding as a method of combating financial exclusion, we noticed that these issues are hardly ever discussed by scholars.

Structure Analysis based on Scopus Database

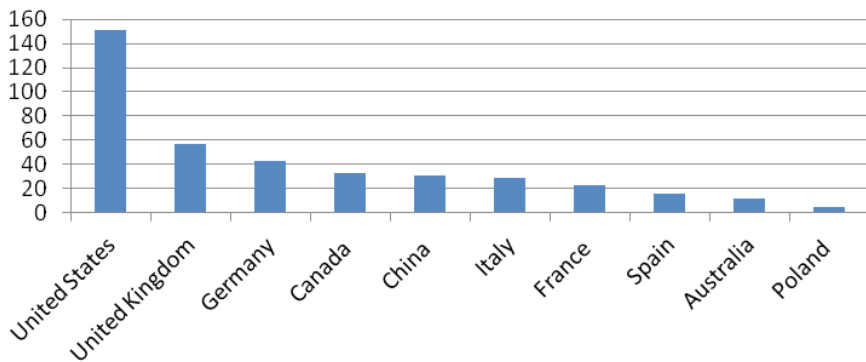
The largest number of articles about crowdfunding (the phrase 'Crowdfunding') – 431 to be precise – were found in Scopus database, thus we based

our analysis on this database. In research on crowdfunding, there prevail management, economics and finance, entrepreneurship, and SMEs. We did not take into consideration social sciences in our studies due to the perspective of the business financial model we adopted. The goal of the studies was to establish to what extent the issue of using crowdfunding by SMEs is analysed as well as to what extent this area of research is discussed by impactful scientific journals.

Over the years analysed, the following were the leading journals in terms of the number of papers published: ***Venture Capital***: 10 articles, ***New Media and Society***: 12 articles, ***California Management Review***: 7 articles, ***Entrepreneurship Theory and Practice***: 9 articles, ***Small Business Economics***: 9 articles, ***Management Science***: 6 articles, ***Journal of Business Research***: 5 articles, ***Journal of Business Venturing***: 7 articles.

In the period under analysis, from the beginning of 2010 until 15 March 2018, as illustrated in Fig. 4, the authors of the articles were based primarily in the USA, Great Britain, Germany, and China, which corresponds to an upward trend in the crowdfunding market dynamics in those countries.

In Scopus database, 5 articles written by Polish authors were found, but they were not analysed in more detail, since they focus more on social sciences as they describe crowdfunding as a form of funding projects in the music market.

Figure 2. Number of articles by affiliated countries in Scopus database

Source: own research based on Scopus database.

In order to determine the quality of the articles, we took a closer look at Impact Factors of journals that discussed the foregoing issues. Among the journals with a great number of articles about crowdfunding identified within Scopus, the following journals prevail in terms of citations: *Journal of Business Venturing*, *Entrepreneurship Theory and Practice*, *Management Science*, *Journal of Business Research*. In addition, on the basis of the *Journal Citation Report* (WoS), we identified Impact Factors of not only the aforementioned journals, but also other journals discussing disciplines taken into account in the analyses (Table 1).

Table 2. Selected journals by Impact Factor – number of articles by the phrase ‘Crowdfunding’

Journal	Impact Factor	Number of articles about crowdfunding in the journal	Number of articles in Scopus database
Academy of Management Annals	11.115	4	
ACADEMY OF MANAGEMENT REVIEW	9.408	1	
JOURNAL OF MANAGEMENT	7.733	3	
ACADEMY OF MANAGEMENT JOURNAL	7.417	6	

JOURNAL OF BUSINESS VENTURING	5.774	8	7
ENTREPRENEURSHIP THEORY AND PRACTICE	4.916	22	12
JOURNAL OF FINANCIAL ECONOMICS	4.505	3	
NEW MEDIA & SOCIETY	4.180	13	12
JOURNAL OF MANAGEMENT STUDIES	3.962	1	
INTERNATIONAL SMALL BUSINESS JOURNAL	3.677	8	
JOURNAL OF BUSINESS RESEARCH	3.354	10	5
HARVARD BUSINESS REVIEW	3.227	43	
MANAGEMENT SCIENCE	2.822	14	6
CALIFORNIA MANAGEMENT REVIEW	2.943	16	7
Strategic Entrepreneurship Journal	2.537	12	
SMALL BUSINESS ECONOMICS	2.421	30	9
2401 Internet Research	1.67	5	
Journal of Electronic Commerce Research	1.320	2	

Source: own research.

When comparing the searches of ‘Crowdfunding’, there can be seen the disparity between a number of articles in Scopus database for the selected journals and a number of articles published at the websites of those journals. Even though a number of articles by the phrase searched is the highest in that database from among all the databases under analysis, it is considerably smaller than the number of articles published in the journal itself. This means untapped research potential.

Analysis of the Number of Articles in ProQuest, ScienceDirect, and WoS Databases

Eventually, we analysed in more detail the articles found in ProQuest, ScienceDirect, and WoS because these databases included the greatest number of publications in the fields of research we were interested in, as selected by Impact Factor. An additional reason for that is the fact the articles with

the phrases we were interested in were found both in Scopus database as well as in all the other databases chosen for analysis. This way, we selected as many articles for analysis as possible (Table 1). ScienceDirect database included 10 articles searched by the phrase 'Crowdfunding+SME' and their number was greater when compared to other databases, except for ProQuest with 16 articles. Web of Science database included 6 publications, but after having examined them closely, it turned out that one of them was a book chapter and the other was in both databases.

In ProQuest database, according to the criterion of scientificity based on Impact Factor (IF), we found only 9 articles but 2 of the selected papers were not directly about crowdfunding⁵, hence 7 papers were chosen for analysis. The largest number of articles (4) was found in *Small Business Economics* (IF 2.421), and the rest of them, one in each, were in the following: *Journal of Business Research* (IF 3.354), *Internet Research* (IF 1.67), *Journal of Electronic Commerce Research* (IF 1.386). The mere fact that there are so few articles in IF journals discussing crowdfunding may indicate a research gap.

To sum up, the selection of articles carried out according to the foregoing criteria and based on a three-step analysis – of their titles, of their abstracts, and of the body of the papers – allowed for choosing the database and the number of articles for further in-depth analyses.

4. Substantive Analysis of the Body of the Articles

Finally, we analysed the body of the 21 articles for the phrase 'Crowdfunding+SME' and 11 articles for phrases: 'Crowdfunding+Banking Sector', 'Crowdfunding+Funding Gap', and 'Crowdfunding+Financial Exclusion'. Our findings are presented in accordance with three general interaction levels: one be-

5. The article of Reabetswe, K., Burke, & van Stel, A. (2018). Small business online crowdlending: who gets funded and what determines the rate of interest? *Small Business Economics*, February: 1–21, was about p2p lending which is not discussed in this paper. On the other hand, in the paper of Tardivo, G., Thrassou, A.; Viassone, M., & Serravalle, F. (2017). Value co-creation in the beverage and food industry. *British Food Journal*; Vol. 119, issue 11, pp. 2359–2372, the definition of crowdfunding was only used to describe a method of funding one of the companies under analysis.

tween crowdfunding and SMEs, one between investors and crowdfunding, and one between the banking sector and crowdfunding.

I. CF+SME

In this group of articles, emphasised is growing importance of CF for SME funding. Such an approach was presented in the article entitled ***Seduced into collaboration: A resource-based choice experiment to explain make, buy or ally strategies of SMEs*** which discusses SME innovation strategies, and crowdfunding is only mentioned as a form of funding (Rijnsoever, 2017). Similarly to the aforementioned text, in the article entitled ***Sustainable venture capital – catalyst for sustainable start-up success?***, crowdfunding is considered to be an innovative source of funding for SMEs and innovative companies as well as a new method of investing at the seed and young stages of the enterprise life-cycle (Bocken, 2015). The importance of crowdfunding for SMEs is highlighted not only by scholars from countries with developed economies. Crowdfunding is perceived in a similar way by economies of developing countries. Abiodun Eniola and Entebang emphasise the relevance of crowdfunding for economic growth, unemployment reduction, and innovation increase in Nigeria (Abiodun Eniola & Entebang, 2015). Another example is a paper on the situation in Malaysia (Abdullah & Oseni, 2017). Both texts tackle the issue of legal regulations regarding the functioning of crowdfunding; in addition, the authors analyse changes introduced by Securities Act Rule 506(c), Regulation A+, when it comes to relaxing restrictions on fundraising by SMEs. A different approach is proposed by Rupeika and Danovib (Rupeika & Danovib, 2015). Based on the studies carried out in 2013 in Italy and Latvia, they proved that the importance of alternative non-banking sources of funding is not high in those countries despite numerous restrictions on traditional forms of funding. The authors believe crowdfunding to be only one of the available forms of funding for SMEs, and an increase in the availability of funds is expected by them to happen primarily through changes in the

functioning of traditional funding. As far as crowdfunding is concerned, they recommend implementing adequate regulatory changes.

Having reviewed the alternative funding sources, Block, Colombo, Cumming & Vismara highlight not only growing importance of crowdfunding as a new form of funding for SMEs (Block et al. 2018); they also pay attention to a new crucial field of research associated with relationships between individual instruments. They believe that the impact of crowdfunding on the funding gap in the SME sector as well as the possibility to substitute or only supplement other forms of funding need to be analysed. According to the authors, it is essential to identify interdependencies between Venture Capital, crowdfunding, and business angels or frequently used traditional forms of funding with bank credits.

An increase in the significance of alternative forms of funding for SMEs and innovative companies was especially noticeable after 2008. Conclusions arrived at by Leea, Sameenc, Cowling in their research on SMEs in Great Britain published in *Research Policy* are as follows:

- Structural problems associated with funding for innovative companies got worse after 2008 because such companies are in greater need for funds from external funds when compared to the years before 2008;
- Due to the tightening of the criteria according to which banks granted credits after the crisis, the difference in access to external funding (credits especially) between innovative companies and non-innovative ones decreased substantially (Leea et al., 2015);
- Those changes translated into a greater demand for funding from sources other than banks, including CF.

Such an increase in the demand results from the possibility to gain a competitive edge by implementing new solutions, services, and products, which becomes a core determinant of economic growth as per the theory of the business cycle. The tightening of the criteria for granting credits resulted, in an absolute sense, in worsening the situation of innovative companies when compared to non-innovative ones, but through new alternative forms

of funding, in a relative sense, that difference decreased. On the other hand, Estrin, Gozman & Khavul (Estrin et al., 2018) find crowdfunding to supplement the traditional forms of funding. They carried out surveys among equity crowdfunding investors and non-engaged entities, and based on those surveys they also developed recommendations for economic operators. There, according to the authors, apart from funding, of intrinsic value in crowdfunding, are know-how gained by economic operators from investors, testing one's own products, brand development or building a loyal customer base – customers who will become investors. That is why the authors are convinced that investors correctly assess crowdfunding-related risks, call for establishing a legal framework supporting crowdfunding as one of the available forms of funding for economic operators that wish to start or develop their own business. Even if crowdfunding is not perceived as an important form of funding for SMEs (Rupeika & Danovib, 2015), it is recommended that governments undertake legislative measures for this new instrument of alternative funding. The purpose of such measures is supposed to be lifting the barriers in the access to CF and other forms of alternative funding for SMEs.

II. Investors+CF

SMEs can raise funds for investments via crowdfunding platforms. The principles of their operation considerably affect the ultimate effect of crowdfunding campaigns. From the financial standpoint, they are analysed in the article entitled ***Crowdfunding: The collaborative economy for channelling institutional and household savings*** where an actual analysis of crowdfunding platforms was performed from the point of view of investors (Hernando, 2017). The main conclusion reads as follows: individual and institutional investors can diversify their investment portfolios due to a high diversity of crowdfunding models and the way of raising funds as part of crowdfunding campaigns. It is a crucial conclusion indicating that even investors with limited resources may invest, and crowdfunding platforms allow for more diverse investment

portfolios. The analysis is broadened in the Maier's article entitled *Supply and demand on crowdlending platforms: connecting small and medium-sized enterprise borrowers and consumer investors* (Maier, 2016) where analysed are changes in behaviours of investors that more and more willingly use various forms of crowdfunding as an alternative form of funding on the one hand, and the possibilities for SMEs to raise funds through such forms on the other hand. An interesting aspect discussed in said article is referring the situation of an investor to the investment possibilities and opportunities as far as the banking sector is concerned. The author emphasises great flexibility, ease of investing and raising funds, as well as great transparency of transactions. He also emphasises the relevance of those changes from the perspective of the structure of financial services provided to SMEs and investors to the disadvantage of the banking sector. Factors motivating investors/sponsors to engage in crowdfunding constitute a significant area of research, though different elements are analysed there: from satisfaction (Zheng, et al., 2017; Xu, 2016), through financial factors (Hornuf, 2017), to regulatory ones (Hornuf & Schwienbacher, 2018). Success determinants, from the point of view of investors, definitely include the use value of a reward in reward crowdfunding, timeliness of deliveries, as well as consistency of a reward with the product specifications. According to Zheng, Xu, Wang, & Xu, these include tips for economic operators planning their crowdfunding campaigns.

From the perspective adopted in our research, of importance would seem the financial factors analysed by Hornuf & Neuenkirch who studied the components of engagement of investors in start-up campaigns run on Innovestment, a German platform (Hornuf & Neuenkirch, 2017). They demonstrated that a stock price in a crowdfunding campaign is influenced by financial expertise of the investor, progress in funding, crowd behaviours, and stock market variability; and it is not affected by a geographical distance or learning outcomes. This means that in the crowdfunding market, one can expect investors' behaviours convergent with the traditional financial market, unlike in the case of regulations. Hornuf & Schwienbacher claimed

that strong protection of investors in the crowdfunding market, just like in traditional capital markets, is not required there and might hinder its growth. Thus, they propose implementing regulations separate for crowdfunding taking into consideration special features of this method of investing (Hornuf & Schwienbacher, 2017). In his article entitled *Entrepreneurial risk-taking in crowdfunding campaigns* (Schwienbacher, 2017), Schwienbacher also attempts at evaluating the impact of the structure of investors on crowdfunding campaigns run by small businesses, claiming that while crowdfunding is beneficial to economic operators because it allows to assess demand, there is a risk of stealing the idea or raising less funds than required. The author believes that such a risk is mitigated by professional investors (private equity funds, business angels), and the crowd provides economic operators with other non-financial benefits; that is why hybrid solutions combining both groups of investors should be fostered.

III. CF+Banking Sector

An interesting aspect discussed in the said article entitled *Supply and demand on crowdlending platforms: connecting small and medium-sized enterprise borrowers and consumer investors* (Maier, 2016) is the fact of referring the situation of an investor to the investment possibilities and opportunities with regard to the banking sector. The author emphasises great flexibility, ease of investing and raising funds, as well as great transparency of transactions. He also emphasises the relevance of those changes from the perspective of the structure of financial services provided to SMEs and investors to the disadvantage of the banking sector. As mentioned above, a change in the relationship between the investor and the banking sector affects the opportunities of SMEs to raise funds in a crowdfunding campaign. Similarly, the development of crowdfunding is influenced by relationships between the banking sector and SMEs shaped by legal regulations and other non-economic and economic circumstances.

Leea, Sameenc, and Cowling (Leea et al., 2015) pay attention to: greater uncertainty and risks associated with ventures of SMEs when compared to big companies, resulting from a high share of intangible assets in SMEs; information asymmetry between banks and SMEs in relation to ventures and projects underway; issues associated with the valuation of ventures and projects themselves as well as with difficulties in establishing an adequate set of venture evaluation indices (credit scoring) to be used by bank in the case of SMEs. The authors recommend fostering innovation among SMEs through diversification of credits granted by banks, diversification in the banking system, and crowdfunding. Differences in the banking system across the UK, the USA or Germany are highlighted, which can have various implications for SMEs in the future and for the development of crowdfunding. On the other hand, Hobbs, Grigore, and Molesworth, 2016, analyse the features of crowdfunding as a form of funding film projects when compared to the traditional forms of funding. Their analysis of 100 crowdfunding campaigns run on Kickstarter by SMEs in the film industry allowed them to claim that crowdfunding is not an instant solution to a shortage of funds. Crowdfunding needs to be seen as a significant investment of time and (financial and personnel) resources which do not differ from those required under the traditional forms of funding. This means that crowdfunding will be used not by those companies which need capital most, but by those with a well-established market position and financial resources.

Conclusions

At the beginning of this article, we asked the questions we had hoped to answer in our literature review. The quantitative research on crowdfunding revealed that this area is characterised by very dynamic and still growing popularity. Based on the analysis of the body of the articles selected according to the criteria defined earlier, we obtained information which allowed us to answer the questions as follows:

Do scholars investigating related topics take into account the increasing importance of crowdfunding as a form of funding and resulting economic consequences for SMEs?

Having regard to a great number of articles discussing this area and a multidisciplinary approach to crowdfunding, the answer is definitely positive. When we narrowed down the selection of articles adequately to the research questions asked, it turned out that while great interest is shown when it comes to crowdfunding and starting new businesses, there are very few publications directly about SMEs. Such an approach is not well-founded because, as stated in the introduction, crowdfunding is perceived by the most important financial market institutions as a significant form of funding for SMEs. The emergence of new crowdfunding models also creates new possibilities and opportunities for SMEs and other market participants.

In addition, based on the analysis of the body of the articles, it is evident that crowdfunding is more and more important from a micro- and macro-economic perspective. One may notice its impact on such core qualities as GDP or unemployment rate, which is directly related to creating innovation by SMEs. However, in the articles reviewed, no in-depth analyses were performed in that regard and no empirical research was presented either. To a great extent, scientific research was primarily about crowdfunding market features, existing risks and benefits for users of that form of funding. Numerous studies discuss a single industry (here: the film industry) or individual platforms (e.g. Kickstarter), which affects the possibility to generalise the findings. In literature on the subject, the significance of crowdfunding for businesses at early stages of their growth is emphasised. The foregoing is confirmed by a considerable number of articles that tackle entrepreneurship combined with crowdfunding. However, the issue of funding for businesses at later stages of growth in terms of the possibility to use crowdfunding as a form of funding. Thus, it may be argued that there is a research gap in those fields.

A suggested further direction of research concerns the use of the theory of enterprise funding sources in studies of the role of crowdfunding when

compared to other forms of fundraising (the theory of alternative and transactional costs) by SMEs. We believe that analyses should be carried out from the perspective of economic operators raising funds, for whom crowdfunding can be a useful solution not only at the start-up level.

Is the relevance of crowdfunding in reducing the funding gap taken into consideration?

Among the articles analysed, the relevance of crowdfunding in reducing the funding gap and financial exclusion has been emphasised a lot. However, our search for articles about the said phenomenon (CF+Funding Gap) produced a very small number of such articles, which – considering quite a large number of articles in total – clearly means that this topic is rarely discussed and studied.

In the articles under analysis, only Block, Colombo, Cumming, and Vismara (Block et al., 2018) highlight not only increasing importance of crowdfunding as a new form of funding for SMEs, but also the necessity to analyse its impact on the funding gap for SMEs and the possibility to substitute or at least supplement other forms of funding. The articles analysed did not include such analyses.

Therefore, it is imperative that further empirical analyses and quantitative research be carried out which will allow to establish if and to what extent crowdfunding (or its individual models), under the existing market and regulatory conditions, may constitute a solution to the funding gap. Research involving developing countries shows that crowdfunding is gaining popularity, although it does not propose market or regulatory recommendations based on the theory of finance. Perhaps it is possible to determine conditions required for crowdfunding to become a crucial form of funding that considerably reduces the funding gap.

Do studies involve analyses of economic consequences associated with the development of crowdfunding for the banking sector?

The aspects associated with the relationships between the banking sector and crowdfunding are discussed in a majority of the articles under analysis.

A number of articles about how relationships between the banking sector and crowdfunding are shaped according to the selection criteria adopted is relatively low, just like a number of those about the funding gap. A special place in those analyses is reserved for a group of investors analysed from a behavioural point of view and taking into account financial incentives. There is compared the attractiveness of investing through crowdfunding platforms and investing through the banking sector. One of the important conclusions presented in the articles analysed is a statement about the necessity and inevitability of changes which the development of crowdfunding will bring to the banking sector, in terms of both subjects and objects. The questions asked by the authors may be formulated in the following way: Are those relationships competitive, substitutionary or complimentary and how to arrange such dependencies in the context of technological change? Do regulations and practice have to follow one direction, and if yes – which one? The questions asked and a small number of articles evidently point to the existence of yet another very significant research gap.

Even though the analyses allowed to spot significant research gaps in research on crowdfunding, they need to be deemed partially satisfactory and incomplete.

- 1) Undoubtedly, an impact is exerted by factors related to the fact that crowdfunding is a relatively new form of funding and as a new phenomenon has been described more widely since 2014. That is why, as we suppose, the authors of the articles we analysed put emphasis primarily on its characteristics and success determinants in crowdfunding campaigns. Most frequent are case studies or general discussions. Articles of more relevance for the research presented were published only in 2015 and later. Even though we examined quite a long period of time, in practice, of most importance are publications from the last 3 years.
- 2) The article selection criteria that we adopted were defined transparently and adequately to the research goals (scientific research, high quality of research), which should be evaluated positively as they allowed us to

find articles related to the issues and phenomena studied as closely as possible and of as high quality as possible. However, their adoption results in discarding a lot of publications which are not of scientific nature and after having a closer look can be of relevance for theory and practice. This also means that certain scientific articles were discarded because they had been published in journals without any Impact Factor assigned.

3) The comparison of the number of articles available in the databases analysed and at the journal websites regarding crowdfunding showed that not all of them are included in the databases. The analysis of the selected journals revealed that there are more papers at the journal websites than in the databases.

4) We noticed during the analysis that the databases do not include Harvard Business Review publications about crowdfunding, whereas when compared to the databases under analysis it is the largest group of publications concerned.

When planning further research, the following needs to be done:

- 1) To carry out comprehensive research, since all the studies carried out so far were only fragmentary. It particularly applies to relationships between SMEs, the banking sector, and crowdfunding
- 2) To extend research according to criteria that allow sources discarded in this research; to compare findings
- 3) Due to a great number of publications in Harvard Business Review, to carry out a separate analysis and to compare findings with the findings already reported.

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