Tuijin Jishu/Journal of Propulsion Technology
ISSN: 1001-4055
Vol. 44 No. 3 (2023)

Bibliometric Analysis of Reward-based Crowdfunding Using VosViewer

Gao Jie[1,2] *, Rosmila Binti Senik[1], Mohamed Hisham Bin Dato Haji Yahya[1], Amalina Binti Abdullah[1]

[1] *School of Business and Economics Putra University Malaysia*
[2] *GuiZhou University of Commerce*

Abstract:

In the context of the global COVID-19 pandemic spanning from 2019 to 2022, small and medium-sized enterprise entrepreneurs, as well as individual entrepreneurs, encountered significant challenges in securing financing. However, with the rapid rise of online crowdfunding platforms, these entities are increasingly turning to crowdfunding to raise funds. As a result, research on crowdfunding through the Internet has grown, although the number of comprehensive reviews on this topic remains limited, leading to a lack of a holistic understanding of crowdfunding. To address this research gap, this paper conducts a comprehensive review of the existing literature on online crowdfunding. The aims of the paper is through the application of vosviewer software to reveal the research direction and research hotspots in the field of product crowdfunding research. The study examines literature published between 2009 and 2022 from the Scopus database, focusing on sources with relevant correlations. Through a systematic search in the Scopus database, publication trends, the number of relevant articles, and influential authors in the crowdfunding field are analysed. Furthermore, the study utilizes VOS Viewer to perform a literature visualization and econometric analysis, allowing the identification of pertinent research topics within crowdfunding. Co-citation analysis is applied to construct a correlation network graph, providing insights into the distribution patterns of crowdfunding-related literature. By undertaking this review and analysis, the paper aims to enhance the overall understanding of crowdfunding and its implications for small and medium-sized enterprises, as well as individual entrepreneurs, during the challenging years of the COVID-19 pandemic. The findings are expected to contribute to the existing body of knowledge on crowdfunding and shed light on potential avenues for future research in this evolving field.

Keywords: crowdfunding, COVID-19, entrepreneurial, creative, VOSviewer

Introduction

During the first seven months of the COVID-19 pandemic, more than 175,000 crowdfunding campaigns were established in the US for coronavirus-related needs using the platform GoFundMe. Since the global outbreak of COVID-19 in 2020, all countries have been affected by the epidemic, resulting in temporary restrict work and production, lockdown of cities, and there cession(Wang et al., 2022). Academic interest in crowdfunding has grown over the past decade, driven by changing consumer spending patterns (Kaminski & Hopp, 2020) and the increasing difficulty financing SME entrepreneurs (Nieto, 2019). Entrepreneurs are turning to crowdfunding as a way to finance their creative ideas. (Bayus, 2013) Faced with these difficulties in raising funds through traditional funding channels, a new funding source (Ciechan-Kujawa & Górnowicz, 2020)—crowdfunding, has emerged as a major force in financing businesses. As the world grapples with this pandemic, crowdfunding offers a dynamic opportunity (Yeh & Chen, 2022) to understand relief needs locally and public responses globally. The global crowdfunding market was calculated to beat $17.2 billion in 2020 and is determined to reach $34.6 billion by 2026, garnering a compound annual growth rate of 17% between 2021 and 2026. However, does this process enable entrepreneurs to improve their business success? Reading much literature reveals a limited number of reviewed studies on the subject. The present research paper reviews the peer-reviewed literature available in the Scopus database from 2010-2022.The Scopus database was used for a systematic literature search. The database was undertaken, resulting in 618 studies published in 44 peer-reviewed international journals.

Literature View

Crowdfunding is an innovative and relatively new concept that connects entrepreneurs and investors through the Internet (Golić, 2014). It is initially perceived as a tool which allows collecting funds from “small investors” (ordinary people) in return for tangible or intangible benefits (Beugre & Das, 2013). According to the (Alessandro Cordovaa 2015), crowdfunding platforms are recognized as an innovative method to raise funds for businesses and projects. This approach enables the collection of substantial funding from a diverse group of interested individuals through online platforms (Mistruzzi & Manenti, 2021). The literature review has successfully identified research gaps in the field of study, offering researchers opportunities to explore previously uncharted areas, particularly concerning the surge of crowdfunding during the COVID-19 crisis (Crosetto & Regner, 2018). To conduct a comprehensive review of this field, the current study combined systematic literature review (SLR) and bibliometric analysis techniques, thereby unveiling its intellectual structure. Crowdfunding has emerged as a viable alternative for inventors and entrepreneurs, providing a pathway for the realization of their ideas (Wachs & Vedres, 2021). Increasingly, entrepreneurs are turning to crowdfunding as a means to raise capital for their ventures, actively engaging interested individuals in the creative process (Shneor & Vik, 2020). Crowdfunding platforms present decentralized and large-scale alternatives to traditional funding sources (Yasar et al., 2022).

Crowdfunding

In general, there are four main models of Crowdfunding: Equity, Debt or Peer to Peer lending (financial models), Reward and Donation based Crowdfunding (non-financial models)(Amuna, 2019). Through a web platform, retail investors have the opportunity to support particular projects by specifying the amount they wish to donate. This form of investment is typically directed towards companies in their early stages, especially those involved in innovative ventures. Additionally, such investments may also extend to projects of a more "personal" nature, such as musical, literary, or artistic endeavours(Caselli & Negri, 2018). Each model has it is own characteristics which might attract investors to involve in. The following table (1) clarifies those characteristics for each model. Equity-based: In this category, donors have the opportunity to become shareholders of the private company seeking financing. Consequently, this type of crowdfunding is subject to legislative restrictions, including limitations on the maximum investment possible and the maximum capital that can be collected by the company. Debt-based crowdfunding encompasses several different types of crowd based lending. These include mini-bonds, peer-to-peer lending (sometimes known as 'peer-2-peer' or 'P2P' lending) and invoice financing. Essentially, a large amount of retail investors (the crowd) lend money through a platform to a business or individual. In removing many of the middlemen that would be involved if the transaction happened through a bank, debt-based crowdfunding can keep the costs down for borrowers while potentially giving the lenders improved rates of return.

Donation-based: The initial forms of crowdfunding were primarily utilized to finance artistic and musical projects, given their requirement for smaller sums of funding. These crowdfunding methods offer a more extended time frame for donations compared to other forms.

Reward-based: In these models, donors receive a reward in exchange for their financial support. There are two distinct types of operations within this model. The first is called "All or nothing," where the fundraising target must be fully achieved; otherwise, the collected amount is not transferred. The second type is known as "Take It All," which allows transactions to be made to the beneficiary even if the total target is not reached.

Table1: Model Characteristics

No.	Model	Investor	Entrepreneur
1	Reward-based	Small contribution	Raise capital
2	Donation-based	Small contribution	Charity
3	Equity-based	Medium contribution. Loosing assets is possible Can't sell the share	Raise capital Might be debtor
4	Lending-based	High risk. Losing money is possible Return is good	Bankruptcy is possible High interest

(Sources: Youssef M,2019)

The COVID-19 pandemic of 2020 significantly disrupted various sectors of the economy, including SMEs and entrepreneurs, resulting in considerable sales declines. Consequently, entrepreneurs encountered heightened challenges when seeking financing from conventional financial markets, leading to a need for alternative solutions (Vismara, 2017). Scholars used various literature review methods such as systematic review, scoping review, and analysis to publish literature reviews. The entrepreneurial experience, therefore, needs help to raise capital. (Rijanto, 2022) Rising crowdfunding activities on social media platforms to increase the demand and presence of upcoming projects is a significant factor driving market (Ma et al., 2017). Social media platforms such as Facebook, Twitter (Yasar et al., 2022), and Instagram, (Ko & Ko, 2021) are gaining more popularity for crowdfunding activities to raise funds by collecting donations from investors. At the same time, rising technological innovations in crowdfunding platforms using artificial intelligence (AI) and machine learning technologies are a significant factor contributing to the market's growth. According to grand view research, donation-based crowdfunding experiences exponential growth, accounting for $7 billion globally in 2020. A 160% jump in annual growth between 2019 and 2020 can be attributed mainly to the influx of COVID-19-related philanthropic, community, and health-related online fundraising campaigns worldwide.

As the market analysis report titled" crowdfunding report" regulatory system, etc. The "crowdfunding phenomenon" has had a significant impact on the global economy and has important implications for traditional funding system(Adam et al., 2019). According to Armbrister (2012), crowdfunding primarily aims to provide funding opportunities for start-ups and individuals that face challenges in obtaining capital from conventional financial institutions, such as banks (Rijanto, 2022). However, investors in crowdfunding face increased risks due to the lack of profitability and management control in start-up ventures. Tanya Prive (2014) identifies incentive-based crowdfunding as a novel internet-based financing model, highlighting the existence of information asymmetry between investors and financiers, which amplifies investment risk (Kleinert et al., 2020). Notably, crowdfunding often rewards investors with future products instead of equity, resulting in a shift in investor behavior, with fewer professional investors pursuing financial returns and more casual investors being driven by genuine passions and interests (Chen, 2021).

The focus of this study is on two investor groups that display distinct preferences. Traditional return-oriented investors usually show a preference for profitable high-tech businesses, which are often male-dominated, as observed by Menzies et al. in 2004. The main objective of this research is to present a comprehensive overview of crowdfunding performance research published between 2009 and 2022. To achieve this, the study aims to address the following research objectives:

(1) To identify the dynamics of research literature.

(2) Identify the most published and influential authors in the field.

(3) Identify the research topic with the most significant number of researchers in the research field.

(4) Confirm the latest progress of crowdfunding in the research.

(5) To identify the common theme of research flowing among researchers in the field of study.

Methodology

To comprehend the research direction and research hot spots of the crowdfunding industry post-epidemic, the visual scientific analysis and co-occurrence analysis software, VOSviewer, developed by the Scientific Research Center of Leiden University in the Netherlands, was employed to analyze the extracted documents. The present study is a combination of SLR (Systematic Literature Review) and Bibliometric analysis. We initiated the process by conducting an SLR, where we entered relevant keywords into the Scopus database and systematically extracted a sample set of research papers using specific inclusion and exclusion criteria. Subsequently, we thoroughly examined the full content of these research papers with the assistance of documentary analysis. The primary source of research articles for this study was the Scopus database, which is the largest database of abstracts and citations of peer-reviewed literature, encompassing articles from leading publishers.

Scope of the study

The present research comprehensively reviewed the studies published in peer-reviewed journals from 2009–2023 using the Scopus database.

Finding and Analysis

Publication trends in the field of crowdfunding

By analyzing number of research papers on product crowdfunding each year, it is possible to understand the changes in product crowdfunding. By analyzing the number of research papers, further research trends can be predicted in product crowdfunding. As shown in Figure 1, since the beginning of the first crowdfunding project Kickstarterin2009, the number of documents that searched for crowdfunding performance by Scopus has changed each year. Crowdfunding research is ongoing. The trend in publications of papers is consistent with the trend in crowdfunding platforms developed.

Figure 1 shows the number of publications annually published on crowdfunding. The first research paper on crowdfunding was published in 2009 in Global Information Technology Management. The earliest product crowdfunding paper appeared in 2012 in the conference publication "CSCWD: Five Characters in Search of Crowds", published at the IEEE 16th Conference on Cooperative Computing in Design (CSCWD 2012). (This is a conference journal, but it has been cited 17 times, so it is a high-quality paper.)

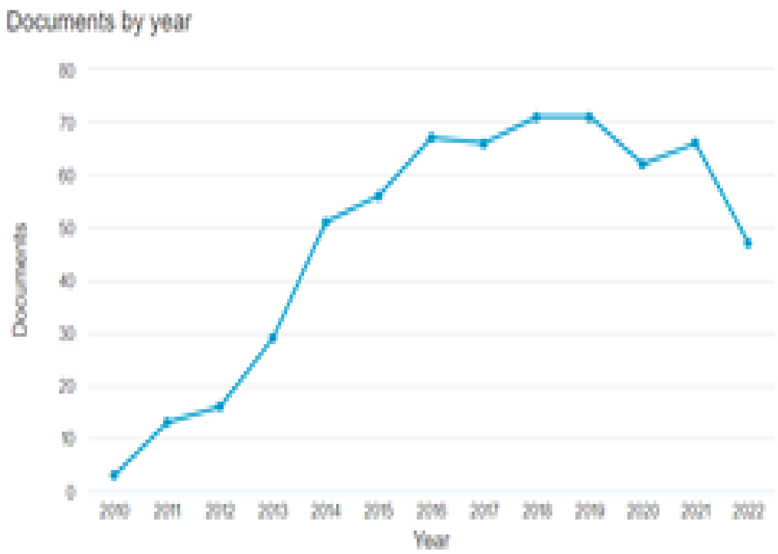
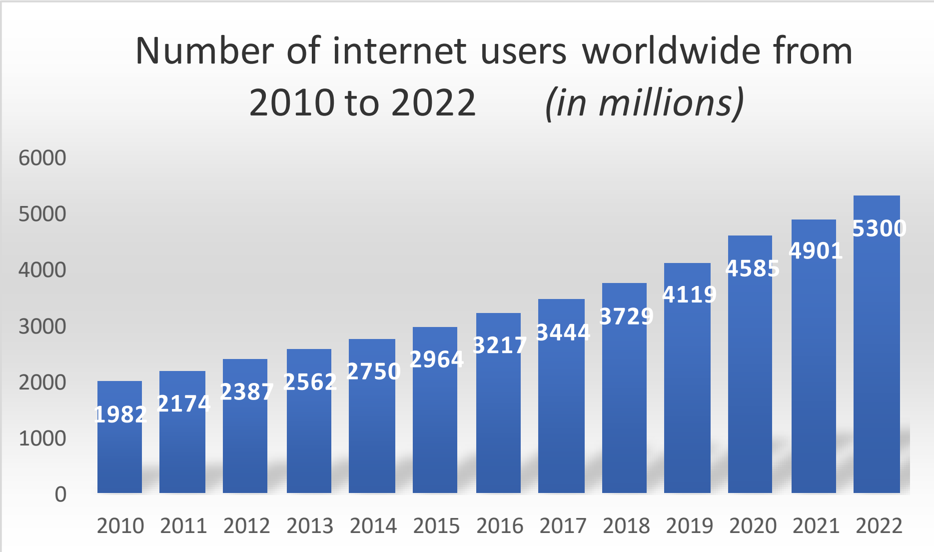


Figure1: number of published literatures in Scopus

Figure2 shows an overview of number internet users worldwide from 2010 to 2022 （in million）. It reveals that there has been a steady increase in the number of internet users in the world. From the figure above, it can be seen that the year with the highest increase is from 2019 to 2020, reaching 466million. 2019–2020 is the year of the global outbreak of COVID-19 and its severity.

Tuijin Jishu/Journal of Propulsion Technology
ISSN: 1001-4055
Vol. 44 No. 3 (2023)



Chat1: Number of internet users worldwide from 2010 to 2022 （in million）

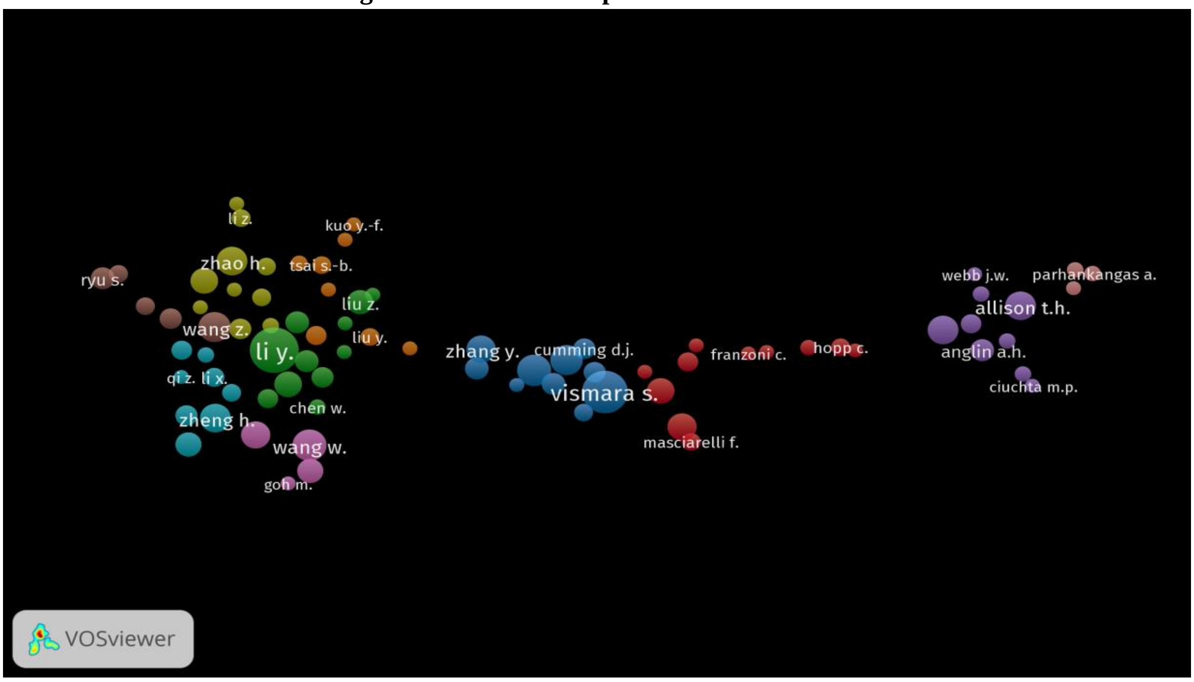
Bibliometric analysis

Bibliography analysis is a research methodology for evaluating and analyzing scientific literature based on bibliography information such as references, publications, authors, and journals. This analysis helps researchers understand the patterns, trends and effects of academic publications in specific fields of research.

Co-authorship network analysis of Author and Countries

The analysis was carried out using VOSviewer. The co-authorship network of authors who have co-authored at least one research paper is shown in Figure 2. The threshold was set so that researchers had to have co-authored at least one paper and been cited at least 50 times between 2009 and 2022. The analysis resulted in 79 authors grouped into 10 clusters, each represented by a different color.

Figure 2. Co-Authorship Network of Authors.



Bibliographic coupling of documents:

In the 1960s, Kesler introduced the concept of linking scientific communities to literature through reports and research articles. The aim of this method is to organize technical and scientific documents, improve access to scientific information and facilitate document retrieval. Kessler's first report showed the context framework of the indexing methodology, which focuses on quantifiable indicators derived from references (Kessler, 1960). In the later report, the definition of the bibliographic binding was described in the following terms:" A common reference between two documents defines the binding unit between them" (Kessler, 1962).

Kessler (1963) introduced the concept of bibliographic coupling. Bibliographic coupling is said to occur when two articles refer to a third common work in the reference list. This increases the degree of bibliographic coupling if there are two articles that refer to and cite the same article at the time of writing. In such a case, papers with similar themes would be classified in the same category. In this case bibliographic coupling was used to group the research subjects of 156 into eight clusters. The clusters obtained are analyzed in detail according to the study carried out with the Vosviewer software.

Results of bibliographic coupling of documents

Using VOS Viewer, 56 studies were grouped under six clusters. Figure 4 depicts the bibliographic coupling of documents. A brief overview of the clusters is provided below.

Cluster 1：（red color）is the largest cluster, with 36 documents cited 4869 times. Of the 156 studies under review, 36 research studies are grouped under the 1st Cluster. The article in this cluster primarily focuses on determinants affecting the intention to crowdfunding. The most cited articles in this cluster are by Massimo G.Colombo al. (2015), cited 588 times, followed by Agrawal (2015), cited 510 times, and by Allison et al. (2015), cited 380 times, respectively.

Cluster 2（green color）This cluster contains 35 documents cited 4654 times and is represented by green color. This cluster primarily investigates crowdfunding decisions and influencing factors. Of the 35 documents, Lehner, Othmar M. delivered four research articles, the maximum by any author in this cluster (Lehner, Othmar M. 2013, 2014a, 2014b,2015). The most cited article in this cluster is by Zheng et al. (2014), cited356 times, followed by MagdalenaCholakova et al. (2015), cited 347 times, and Annaleena Parhankangas (2017) cited 314 times.

Cluster 3（blue color）This cluster contains 34 documents cited 6640 times and is represented by blue color. This cluster is primarily An empirical study exploring the factors that influence the success of crowdfunding. Of the 34 documents, With 2,059 citations, Ethan Mollick's paper is the most cited article on crowdfunding in the world and shows the status of Ethan Mollick in the field of crowdfunding. The paper's subject is the dynamics of crowdfunding: an exploratory study.

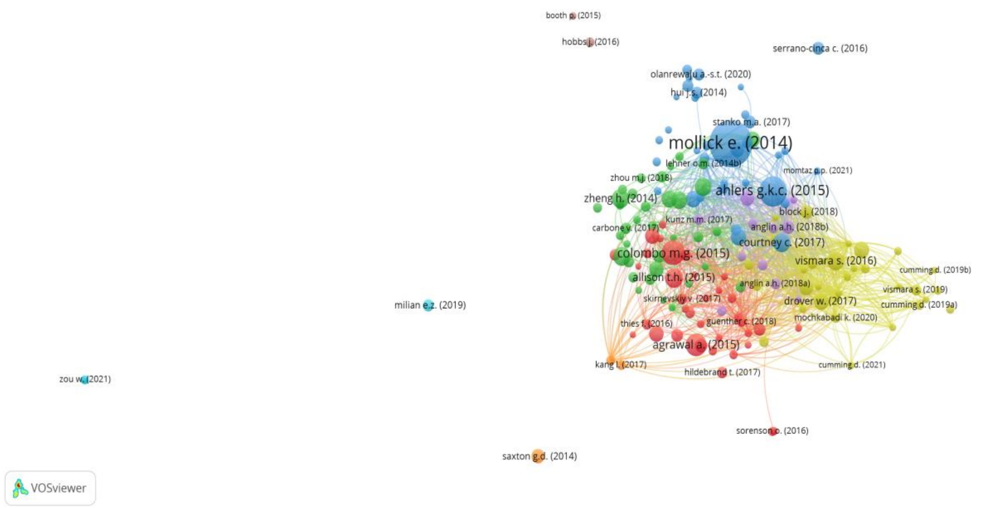
Cluster 4（yellow color）This cluster contains 32 documents cited 3156 times and is represented by yellow color. The papers in this section focus on the study of crowdfunding sponsors. It is interesting to note that two researchers contributed seven and four papers in this one section. Jörn Block has three papers in the cluster. Focus on the crowdfunding factor in the early stages of a business. The other is researcher Douglas J. Cumming, who is focused on the problems with and promise of entrepreneurial finance.

Cluster 6(blue color) This cluster contains three documents cited 282 times and is represented by blue color. The papers in this section focus on an overview of the general direction and core of fintech. The most cited paper is by Eduardo Z. Milian, titled Fintechs: A literature review and research agenda. The paper is cited by 154 times.

Clusters 7 and 8 (orange and brown). The number of papers in these two parts is small, showing the less popular research direction. This research direction is related to the intelligent platform.

In summary,

Figure 3: Bibliographic coupling of authors.

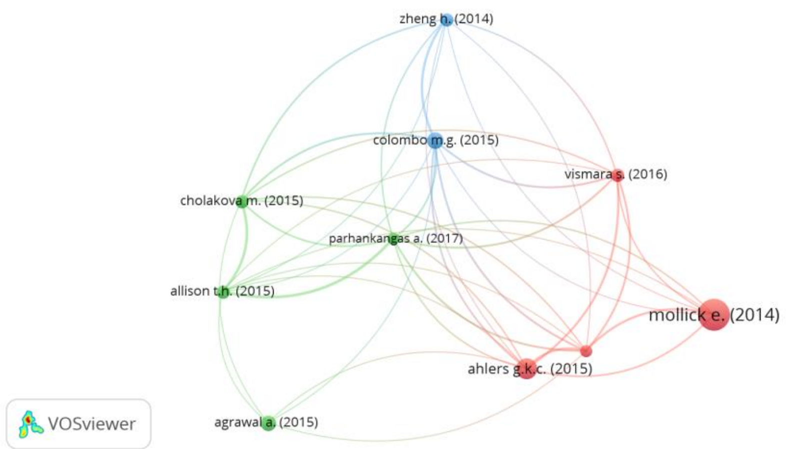


The above analysis identifies the researchers most representative of the field of crowdfunding with the highest cited papers. It can be seen from the table that these researchers are representative and authoritative in the field of crowdfunding. The citations and total link strength are below in the Table 1.

Table 2: The most citations and total link strength of the authors

Authors	Citations	Total link strength
Parhankangas a. (2017)	314	28
Courtney c. (2017)	335	28
Colombo m. g. (2015)	588	27
Vismara s. (2016)	351	24
Ahlers g.k.c. (2015)	888	24
Cholakova m. (2015)	347	24
Allison t. h. (2015)	380	22
Zheng h. (2014)	356	17
Mollick e. (2014)	2059	15
Agrawal a. (2015)	510	5

Figure 4: The top 9 researcher who has the most citations and the total link strength

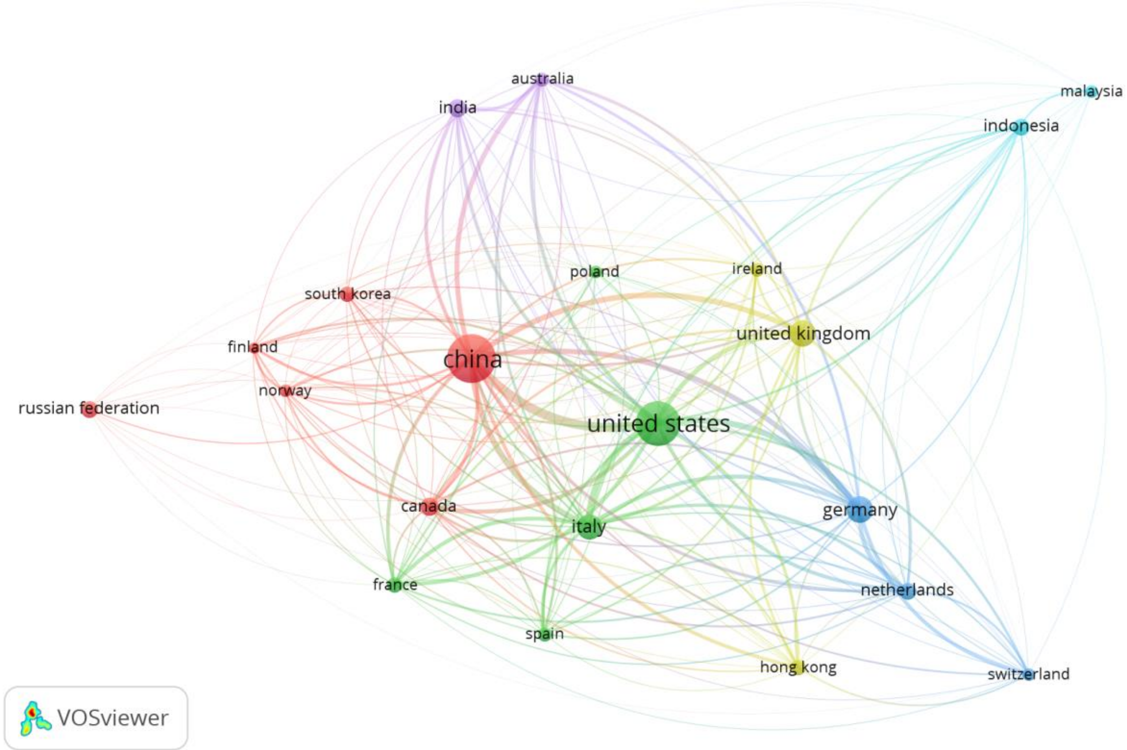


These findings suggest that the crowdfunding industry is part of a new type of industry. The industry has been growing steadily. Especially in the context of the overall expansion of the global epidemic in 2019, there has been a significant increase in mobile phone users of the Internet in particular. People have more time to browse the web with their mobile phones than ever before. In this case, there is a period of rapid development of Internet crowdfunding platforms that rely on the Internet for their business. More people can be called potential crowdfunding investors.

Results of bibliographic coupling of counties

The new crown outbreak is now an established and ongoing health problem and no longer constitutes a public health emergency of international concern." (United Nations UN News , https://news.un.org/zh/story/2023/05/1117647) In this emerging global health landscape, variations are expected to arise in both the quantity and orientation of research endeavors concerning the advancement of crowdfunding within the academic community across diverse nations. In such a new international health situation, the direction, number, and the focus of research on the development of crowdfunding by researchers in different countries will also show differences. The most surprising aspect of the figure is in the countries that with the most research on product crowdfunding since the COVID-19 is China, followed by the United States. Notably, Malaysia and Indonesia are also shown in the map. This suggests that crowdfunding is also beginning to flourish in Southeast Asia. Not only Southeast Asia, Switzerland and Russia are also actively developing online crowdfunding businesses.

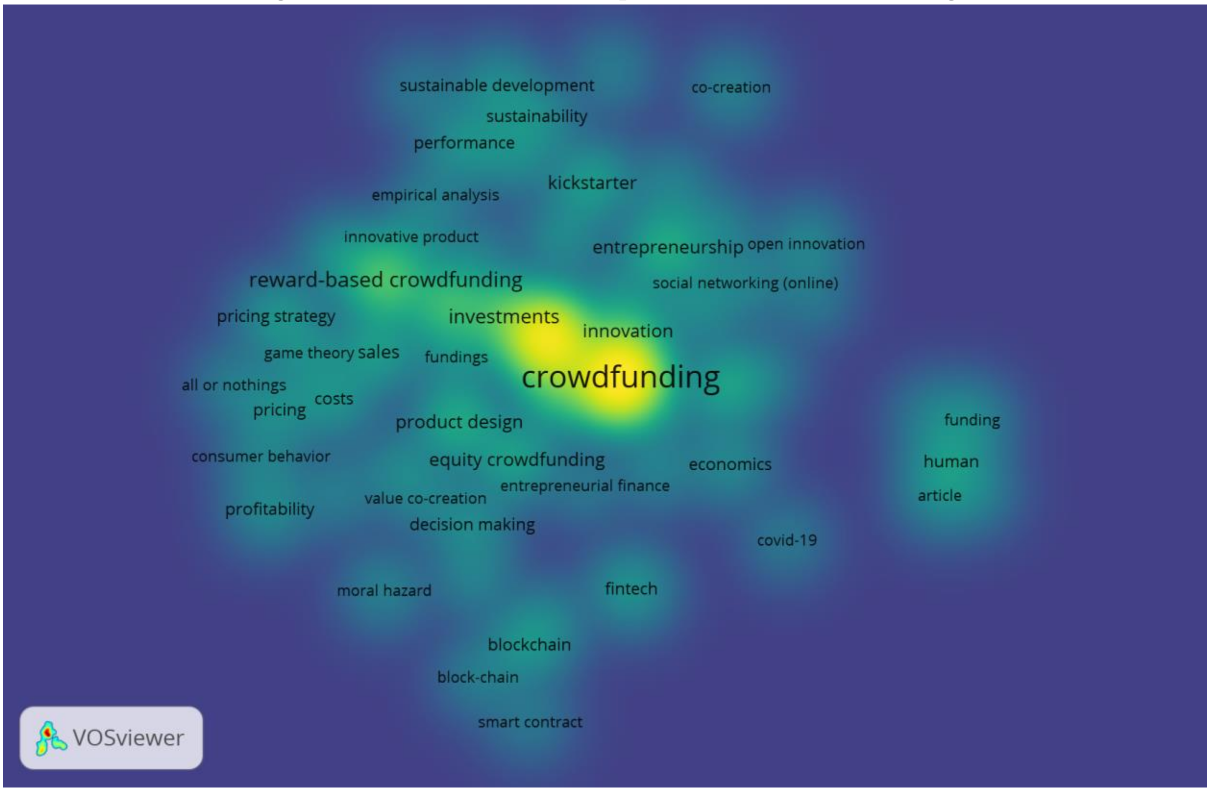
Figure5: Countries publishing papers on crowdfunding-related content after 2019



Research Gaps in current research and Direction for future research

As demonstrated by the following heat map, academic interest centers are focused on crowdfunding and investments, maintaining prominent positions within the hotspot. In addition, scientific attention is extending to areas such as entrepreneurship, product innovation, product marketing, and new product design. In particular, reward-based crowdfunding isa rapidly growing area of crowdfunding that occupies a central place on the heat map. This observation may be related to the significant increase in mobile Internet users in the past three years, as reward-based crowdfunding is largely used in the execution of campaigns on online crowdfunding platforms. The increasing popularity of the Internet thus contributes to the continuous expansion of reward-based crowdfunding efforts.

Figure 6: Research themes on aspects related to crowdfunding



After an exhaustive review of the literature, it is found that while the main text literature was progressing, significant research gaps prevented the current study from being confirmed. This paper proposes some directions for crowdfunding research.

The impact of social media

Existing literature has conducted in-depth studies on social capital and social media applications. However, the existing literature generally regards social media applications as the social capital of crowdfunding sponsors. It rarely regards the frequency of social media use as an independent variable affecting the success of crowdfunding. Only Luet al. (2015) has studied the dynamic nature of crowdfunding for Internet products through social media. However, Luet al. (2015) only studied the sharing path of Twitter, ignoring the influence of other common foreign social media such as Facebook. The literature review found that the research is limited to third-party social media such as Facebook, Twitter, and Weibo and does not consider the product crowdfunding platform itself.

4.3.2 For the innovative aspects of the product

Innovation in crowdfunding is an essential factor that may affect the final performance of crowdfunding for products. The degree of innovation of the product that is the subject of the crowdfunding campaign determines the level of acceptance of the product by potential backers. The degree of innovation of the product to be crowdfunded determines the acceptance and recognition of the product by potential crowdfunding supporters and affects the company's future revenue.

The lack of dynamic research

On Internet crowdfunding platforms, potential backers can observe not only static information about the crowdfunding project, including the status of the project, the sponsor, the target amount of funding, the deadline, etc. but also dynamic information, such as the cumulative amount of support, the number of backers and when the backers will fund the project in real-time before making their funding decisions. Research on this dynamic real-time social information is rare in previous studies.

In this section, we have summarized our present study and presented the results of the four research questions mentioned in the introduction. The findings about the questions are listed below:

It is easy to conclude from the research findings that research on crowdfunding has grown rapidly since the beginning of 2010, peaking in 2018, and 2019. But with the severity of the global epidemic. Especially considering the devastation caused by COVID-19. The past few years have witnessed the role of the crowdfunding aspect in providing fundraising. research witnessed a dramatic shift after 2009 as researchers publicized their work in leading peer-reviewed journals. An analysis of national scientific production describes a completely different story. This trend suggests the emergence of two large blocks of research in general, one dominated by the United States and one with a geographical distribution of research centered on China. But the research boom in Asia has constructed a region in which crowdfunding offers a broader and broader way for entrepreneurs to gather capital. This approach is more flexible and effective.

Conclusion

To the best of our knowledge from analysis of literature databases, there are still very few papers that have been reviewed in the field of crowdfunding using SLR and bibliometric analysis. It is concluded from this study that research in the field of crowdfunding is on the rise. The research arears include:1) Motivations and Backer Behavior, 2) Campaign Success Factors, 3) Trust and Risk Perception, 4) Social Dynamics and Networks, 5) Project Quality and Success. with many researchers from different countries, disciplines, and institutions publishing their research in leading peer-reviewed journals. An analysis of the research results from various countries shows that the United States and China are leading the way, with research on legal regulations still showing a lack. Future research could consider this as a research direction. The literature for this study is limited to the Scopus database. Future researchers will need to extend the scope of this study by accessing databases such as Web of Science, Google Scholar, ProQuest, IEEE Explore, Dimensions API, and ABI/Inform to overcome the limitations associated with this study.

Despite the above-mentioned limitations, our paper provides a comprehensive overview of crowdfunding research that will significantly help academics and practitioners alike. Furthermore, it will help to expand and advance research on the topic. Especially in the financing process of new SMEs in the post-epidemic era, taking advantage of the Internet is bound to be a trend for future research.

Acknowledgment

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

References

[1] Department of Education. (2020, April 22). Physical activity and health. Queensland Government. https://education.qld.gov.au/curriculum/learning-at-home/physical-activity-and-health

[2] Forouzan, B. A. (2007). Cryptography & network security. McGraw-Hill, Inc..

[3] Morgan, R., Meldrum, K., Bryan, S., Mathiesen, B., Yakob, N., Esa, N., & Ziden, A. A. (2017). Embedding digital literacies in curricula: Australian and Malaysian experiences. In G. B. Teh & S. C. Choy (Eds.), Empowering 21st century learners through holistic and enterprising learning: Selected papers from Tunku Abdul Rahman University College International Conference 2016 (pp. 11-19). Springer. https://doi.org/10.1007/978-981-10-4241-6_2

[4] Wegener, D. T., Petty, R. E., & Klein, D. J. (1994). Effects of mood on high elaboration attitude change: The mediating role of likelihood judgments. European Journal of Social Psychology, 24(1), 25–43. https://doi.org/10.1002/ejsp.2420240103 References

[5] Bayus, V. K. B. L. (2013). CROWDFUNDING CREATIVE IDEAS: THE DYNAMICS OF PROJECT BACKERS IN KICKSTARTER.

[6] Chen, L. (2021). Investigating the impact of competition and incentive design on performance of crowdfunding projects: A case of independent movies [Article]. Journal of Theoretical and Applied Electronic Commerce Research, 16(4), 1-20, Article 45. https://doi.org/10.3390/jtaer16040045

[7] Chirisa, I., Mukarwi, L., & Matamanda, A. R. (2018). Prospects and options for sustainable and inclusive crowdfunding in African cities. In Crowdfunding and Sustainable Urban Development in Emerging Economies (pp. 211-231). IGI Global. https://doi.org/10.4018/978-1-5225-3952-0.ch011

[8] Ciechan-Kujawa, M., & Górnowicz, J. (2020). Success determinants of sports projects financed with donation crowdfunding [Article]. Journal of Physical Education and Sport, 20, 3046-3052, Article 414. https://doi.org/10.7752/jpes.2020.s5414

[9] Crosetto, P., & Regner, T. (2018). It's never too late: Funding dynamics and self pledges in reward-based crowdfunding. Research Policy, 47(8), 1463-1477. https://doi.org/10.1016/j.respol.2018.04.020

[10] Daniele Leone a, Maria Cristina Pietronudo a, Heger Gabteni b, Maria Rosaria Carli c. (2023). Reward-based-crowdfunding-for-building-a-valuable. _Journal-of-Business, 157. https://doi.org/10.1016/j.jbusres.2022.113562

[11] Kaminski, J. C., & Hopp, C. (2020). Predicting outcomes in crowdfunding campaigns with textual, visual, and linguistic signals [Article]. Small Business Economics, 55(3), 627-649. https://doi.org/10.1007/s11187-019-00218-w

[12] KESSLER, M. M. (1962). <Bibliographic Coupling Between Scientific Papers.pdf>.

[13] Kleinert, S., Volkmann, C., & Grünhagen, M. (2020). Third-party signals in equity crowdfunding: the role of prior financing [Article]. Small Business Economics, 54(1), 341-365. https://doi.org/10.1007/s11187-018-0125-2

[14] Ko, J., & Ko, E. (2021). What fashion startups should know before launching Crowdfunding projects: Focusing on Wadiz reward Crowdfunding [Article]. Journal of Global Fashion Marketing, 12(2), 176-191. https://doi.org/10.1080/20932685.2020.1870521

[15] Ma, X., Yang, M., Li, Y., & Zhang, J. (2017). Signaling factors in overfunding: An empirical study based on Crowdcube. 14th International Conference on Services Systems and Services Management, ICSSSM 2017,

[16] Nieto, B. C. (2019). Crowdfunding and proximity audiovisual. Collaborative economy as an instrument of sectorial development [Article]. CIRIEC-Espana Revista de Economia Publica, Social y Cooperativa(95), 257-288. https://doi.org/10.7203/CIRIEC-E.95.9095

[17] Rijanto, A. (2022). Creative industries project financing through crowdfunding: the roles of fund target & backers [Article]. Creative Industries Journal, 15(1), 79-96. https://doi.org/10.1080/17510694.2021.1899489

[18] Shneor, R., & Vik, A. A. (2020). Crowdfunding success: a systematic literature review 2010–2017 [Review]. Baltic Journal of Management, 15(2), 149-182. https://doi.org/10.1108/BJM-04-2019-0148

[19] Vismara, J. H. B. M. G. C. D. J. C. S. (2017). New players in entrepreneurial finance and why they are there. Small Bus Econ, (2018) 50, 239–250. https://doi.org/10.1007/s11187-016-9826-6

[20] Wachs, J., & Vedres, B. (2021). Does crowdfunding really foster innovation? Evidence from the board game industry. Technological Forecasting and Social Change, 168. https://doi.org/10.1016/j.techfore.2021.120747

[21] Wang, J., Luo, J., & Zhang, X. (2022). How COVID-19 Has Changed Crowdfunding: Evidence From GoFundMe. Frontiers in Computer Science, 4. https://doi.org/10.3389/fcomp.2022.893338

[22] Yasar, B., Sevilay Yılmaz, I., Hatipoğlu, N., & Salih, A. (2022). Stretching the success in reward-based crowdfunding [Article]. Journal of Business Research, 152, 205-220. https://doi.org/10.1016/j.jbusres.2022.07.053

[23] Yeh, J. Y., & Chen, C. H. (2022). A machine learning approach to predict the success of crowdfunding fintech project [Article]. Journal of Enterprise Information Management, 35(6), 1678-1696. https://doi.org/10.1108/JEIM-01-2019-0017

[24] Adam, M., Wessel, M., & Benlian, A. (2019). Of early birds and phantoms: how sold-out discounts impact entrepreneurial success in reward-based crowdfunding [Article]. Review of Managerial Science, 13(3), 545-560. https://doi.org/10.1007/s11846-018-0311-2

[25] Alessandro Cordovaa , J. D., Gianfranco Gianfratec, c□. (2015). <The determinants of crowdfunding success.pdf>. Procedia - Social and Behavioral Sciences, 181 (2015) 115 – 124. https://doi.org/10.1016/j.sbspro.2015.04.872

[26] Amuna, Y. A. (2019). Entrepreneurship, Crowdfunding Platforms and Sponsors. International Journal of Business Innovation and Research · January 2019.

[27] Caselli, S., & Negri, G. (2018). Chapter 19 - New Trends and Solutions in the Private Equity and Venture Capital Industry. In S. Caselli & G. Negri (Eds.), Private Equity and Venture Capital in Europe (Second Edition) (pp. 269-278). Academic Press. https://doi.org/https://doi.org/10.1016/B978-0-12-812254-9.00019-X