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**Article**

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## MANAGEMENT | REVIEW ARTICLE

# Bibliometrics of social entrepreneurship research: Cocitation and bibliographic coupling analyses

Luc Phan Tan<sup>1\*</sup>

**Abstract:** The purpose of this paper is to provide conceptual structure, explore current research directions, and suggest emerging trends in social entrepreneurship. The authors utilize co-citation analysis as well as bibliographic coupling analysis to analyze 1122 social entrepreneurship publications thought VOS Viewer software. Co-citation analysis was used to explore the structure of the research topic, while bibliographic coupling analysis was used to identify potential research topics. Based on themes from co-citation analysis and bibliographic coupling analysis, the authors compared similarities and differences between themes to explore potential research groups in SE, for instance, hybrid organizations, social value creation, dimensions, and measurement of social goals. This is the first study using co-citation analysis and bibliographic coupling analysis to review publications related to social entrepreneurship. This research study contributes to the social entrepreneurship literature by enhancing the understanding of the structures in social entrepreneurship through citations, as well as can be employed to support scholars in other for recognizing future research directions.

**Subjects:** Entrepreneurship and Small Business Management; Entrepreneurship; Social Entrepreneurship

**Keywords:** Social entrepreneurship; bibliometrics; co-citation analysis; bibliographic coupling analysis

## 1. Introduction

The concept of “social entrepreneurship” (SE) has rapidly emerged in the private, public, and nonprofit sectors over the past decades, and interest in SE continues to flourish (Saebi et al., 2019). SE is an innovative solution to resolve the complicated demands of society (Chell, Spence et al., 2016). In fact, for developing countries, they tend to consider entrepreneurship as a solution for economic enhancements; however, this economic development leads to a series of diverse social problems for which the government has insufficient resources to solve (Chell, Spence et al., 2016). SE has a strong intuitive appeal and is of great interest from the academic community. However, this is still a new area as well as its research on SE lags far behind the practice (Mahfuz Ashraf et al., 2019). The variously excellent reviews were operated to capture the SE; nevertheless, these reconsiderations have a tendency to concentrate on precise components in SE, involving SE concepts and definitions (Bacq & Janssen, 2011), social innovation (Phillips et al., 2016), types of organization in SE (Doherty et al., 2014), social impact and social change (Rawhouser et al., 2019), or statistics of research study on SE (Rey-Martí et al., 2016). These findings cultivate certain insights about SE in expected aspects. Nonetheless, SE is widely distributed and at altered levels; this investigation indicates different approaches to summarize, classify, and suggest future research directions of SE studies through bibliometric methods, including co-citation analysis as well as bibliographic coupling analysis.

Bibliometrics is a statistical methodology that analyzes the basic information of documents such as authors, keywords, and references to impart insight into the development of a research topic (Nicolaisen, 2010; Van Raan, 2005). Bibliometrics methodology includes diverse techniques, for example, citation analysis, bibliographic coupling analysis, co-word analysis, and co-citation evaluation (Leung et al., 2017; Nicolaisen, 2010). To visualize the science map and support insights into the growth of SE literature, scholars combine two techniques of bibliometric method such as co-citation analysis and bibliographic coupling analysis.

With the assistance of bibliometrics, this work strives to investigate a dissimilar technique to provide conceptual structure, explore existing research directions, and recommend emerging trends in SE. This work has been applied co-citation analysis and bibliographic coupling analysis to analyze SE publications from the Web of Science (WoS) database. Co-citation analysis was used to explore the structure of the research topic, whereas bibliographic coupling analysis was utilized to indicate potential research circumstances. Especially, this research paper intends to accomplish the below objectives:

- 1) discover co-citation themes and visual co-citation network;
- 2) explore the bibliographic coupling themes and the visual bibliographic coupling network;
- 3) compared similarities and dissimilarities between themes between co-citation analysis and bibliographic coupling analysis to explore potential research directions in SE.

## **2. Literature review**

### **2.1. The conceptualization of social entrepreneurship**

There are various definitions of SE that definitely converge on the combination of entrepreneurship and social mission (Cherrier et al., 2018), which is similar to the identification of chances and business activities to pursue social missions (Zahra et al., 2009). Social goals are the main motivation for SE, it must solve social situations while ensuring profit, which results in a dual task of SE as well as social enterprises (Saeabi et al., 2019). Mair & Noboa (2006) identify that SE involves an innovative approach to addressing social issues. Shane and Khurana (2003)'s was defined the definition of SE as a "process that begins with the formation of social ideas, identifying opportunities and solutions for sustainable social development". Last but not least, other scholars figure out more progressive perspectives of SE as business activities that combines the "social" and "entrepreneurship" to solve social problems with innovative solutions towards sustainable social development (Millman et al., 2010; Peredo & McLean, 2006; Shaker A Zahra et al., 2008).

### **2.2. Bibliometric analysis**

The "bibliometric" is distinguished as "the application of mathematical and statistical methods to books and the other means of communication". Moreover, the bibliometric admits researchers to analyze literature of research topic to find out the conceptual structure and the evolution of research themes (Castillo-Vergara et al., 2018; Leung et al., 2017). Bibliometric method has different techniques such as citation analysis, bibliographic coupling analysis, co-word analysis, and co-citation analysis (Van Eck & Waltman, 2009).

Combining different techniques in bibliometrics cultivates deeper insight into the research topics (Chang et al., 2015). The two common methods used together are bibliographic coupling analysis and co-citation analysis (Boyack & Klavans, 2010; Chang et al., 2015; Ferreira, 2018) that can be used to elucidate the intellectual structure of disciplines (Chang et al., 2015) (see Figure 1). Co-citation analysis is a technique that allows quantification of relationships and connections between articles, and it determines how often two articles are cited by a third article (Small, 1973), which is mentioned in the research paper of Benckendorff and Zehrer (2013). They also indicated that the co-citation is a measure of the relationship between the two publications

through citations. Hence, research themes could be explored to provide more knowledge into the structure of academic literature (Leung et al., 2017). Regarding bibliographic coupling analysis, two articles are bibliographically coupled if they both cite one or more documents in their bibliographies. Two articles may treat a same subject if they are bibliographically coupled. Bibliographic coupling is a measure of the relationship between the two articles through “coupling strength”. The “coupling strength” of two given articles is higher the more citations to other articles they share (Martyn, 1964). Several studies admit that co-citation analysis is more relevant in expressing the structure of the research topic than the bibliographic coupling analysis (Bichteler & Eaton, 1980). However, bibliographic coupling analysis has proven to be an appropriate method for identifying potential research topics (Zhao & Strotmann, 2008).

### 3. Method

Based on the advantages of co-citation analysis and bibliographic coupling analysis, the author uses a combination of these two methods to analyze SE research and identify potential research themes in the future (Leydesdorff et al., 2013). The data were taken through the Web of Science database, and the search terms used were “social entrep\*”. In fact, publications in English are considered without using any filters that were published before April 2021. In this work, a preliminary search returned 1541 publications and the scholars carefully read titles and abstracts of these 1541 publications to ensure that they are related to SE as well as to eliminate duplicates. Nonetheless, this research also has 419 publications that were excluded from the analysis, while a total of 1122 publications were retained for data analysis. Lastly, co-citation analysis was used to indicate key research themes in the field of SE, whereas bibliographic coupling analysis was used to analyze SE studies during the period when SE studies began to receive much attention to date.

### 4. Results

#### 4.1. Year of publication

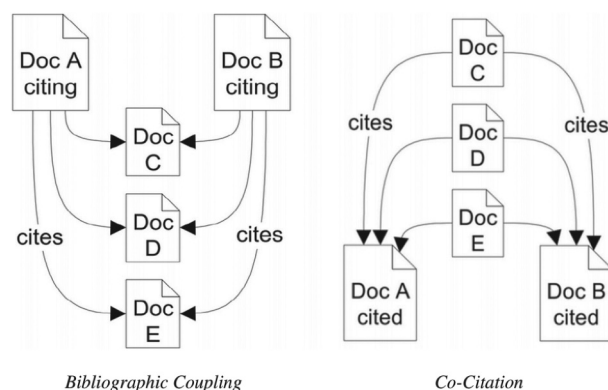
According to Figure 2, it depicts the growth in the number of SE-related publications that was published from 1988 to 2021. As a result, the annual publication average is 40.07, indicating that SE is receiving more and more attention from the academic community.

#### 4.2. Co-citation analysis

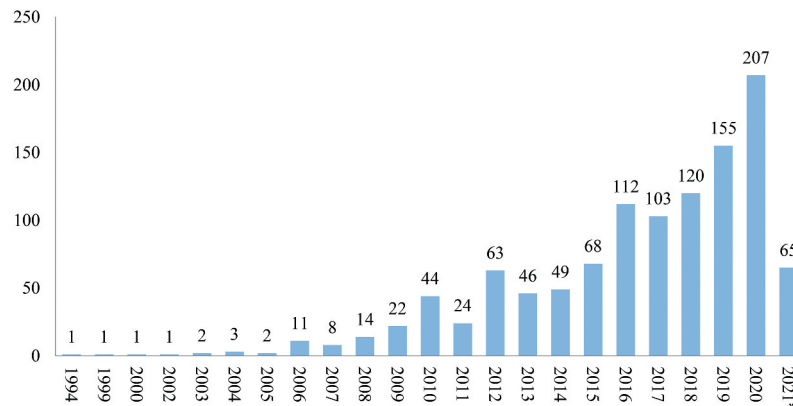
To establish a co-citation network comprising the most influential publications in the research of McCain (1990), who proposed establishing a cut point. After narrowing down the initial sample of 1122 articles to those articles containing at least 20 citations, the final sample comprises 190 articles. Correspondingly, this study analyzes co-citation from 190 articles.

Furthermore, the smart local moving algorithm method is used to exploit the structure of SE research (Cicea & Marinescu, 2021; Van Eck & Waltman, 2009), and the co-citation of the SE

**Figure 1. Co-citation analysis and bibliographic coupling analysis, Source: Wikimedia.**



**Figure 2. Year of publications,**  
**Source: authors based on Web**  
**of Science database.**

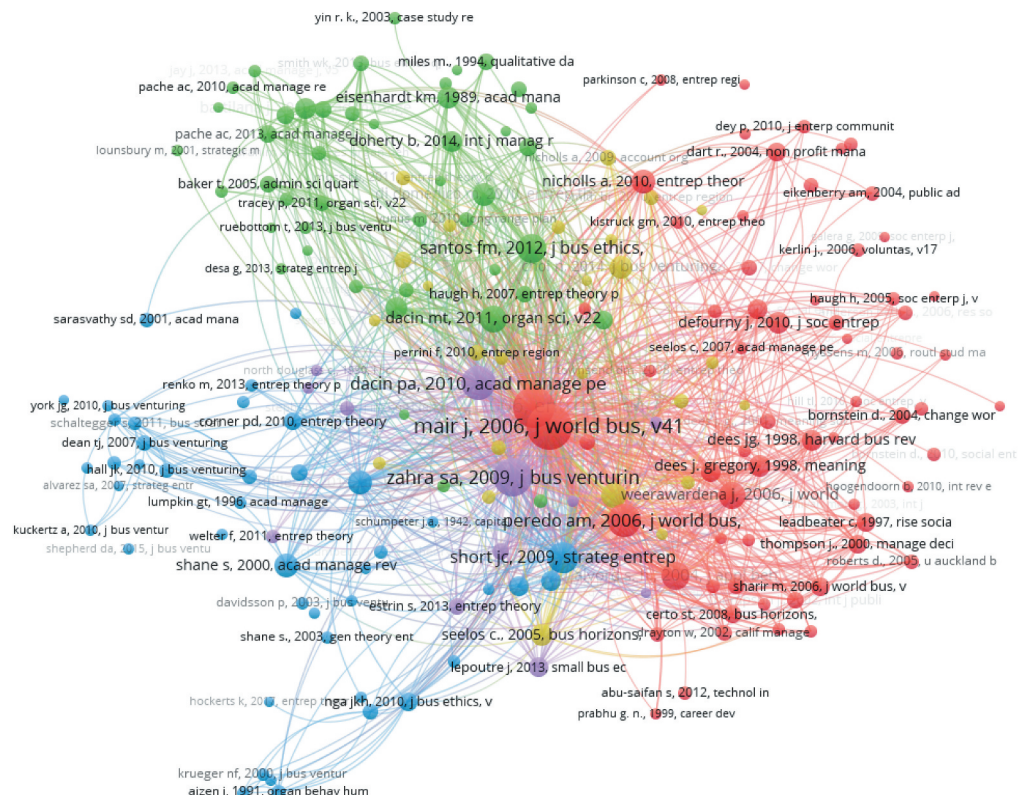


research is visualized in Figure 3. The size of the bubble represents the number of standardized citations that the articles receive and the thickness of the lines denoting the strength of citation relations. The link as well as the distance between two documents identify the co-citation relationship. Each color represents each theme to which the publication is linked. Author name and year of publication are labeled on each bubble (Waltman & Waltman, 2017).

The five studies with the highest indices of co-citation are:

- Mair & Noboa (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of world business*, 41(1), 36–44.

**Figure 3. Visualized co-citation**  
**network, Source: authors based on**  
**VOSViewer software.**





**Table 1. Co-citation themes**

Themes	Representative citations
Theme 1. The concepts of SE and related issues	Mair & Noboa (2006), Austin, Stevenson, and Wei-Skillern (2006), Elizabeth Chell (2007), (2006), Thompson, Alvy, and Lees (2000),
Theme 2. Issues related to management in SE	Datta and Gailey (2012), Granovetter (1985), Doherty et al. (2014), Desa (2012), Desa and Basu (2013), Haugh (2007), Pache and Santos (2013), Montgomery, Dacin, and Dacin (2012)
Theme 3. Social entrepreneurs and potential social entrepreneurs	Shapero and Sokol (1982), Krueger, Reilly, and Carsrud (2000), Mair & Noboa (2006), Liñán and Chen (2009), Hockerts (2017), Corner and Ho (2010), Nga and Shamuganathan (2010)
Theme 4. Social innovation in SE	E. Chell, Nicolopoulou, and Karatas-Ozkan (2010, . Nicholls (2008), Nicholls (2009), Perrini, Vurro, and Costanzo (2010), Shaw and de Bruin (2013), Smith and Stevens (2010)
Theme 5. Institutional contexts	Lepoutre et al. (2013), Shaker A Zahra et al. (2009), Bacq, Hartog, and Hoogendoorn (2018), Ute Stephan et al. (2015), Estrin, Mickiewicz, and Stephan (2013), McMullen (2011)

Source: author

- Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and commercial entrepreneurship: Same, different, or both? *Entrepreneurship Theory and Practice*, 30(1), 1–22.
- Zahra et al. (2009). A typology of social entrepreneurs: Motives, search processes and ethical challenges. *Journal of business venturing*, 24(5), 519–532.
- Dacin, M. T., Dacin, P. A., & Tracey, P. (2011). Social Entrepreneurship: A Critique and Future Directions. *Organization science*, 22(5), 1203–1213.
- Peredo and McLean (2006). Social entrepreneurship: A critical review of the concept. *Journal of world business*, 41(1), 56–65

The results of co-citation analysis showed that SE publications formed five themes as Table 1. The writer carefully read each typical article in each of those themes to name the themes. The first theme was the various concepts of SE and related issues, focusing on the birth of SE, its development, and comparison with other related concepts such as commercial entrepreneurship, public sector, social enterprise ... The second theme referred to various issues of governance in SE such as strategy, collaboration, resource mobilization, technology, financial management, market orientation ... The third theme presented social entrepreneurs and potential social entrepreneurs, the process from identifying opportunities to the intention to become a social entrepreneur. In addition, in this group, the factors that form a successful social entrepreneur are described. The fourth theme referred social innovation and social value in SE, explaining how SE impacts society to create social innovation, social change, and social value. The last theme referred to the institutional context, discussing the environmental factors affecting SE.

#### 4.3. Bibliographic coupling

After narrowing down the initial sample of 1122 articles to those articles containing at least 20 citations, the final sample comprises 60 articles. Correspondingly, this study analyses bibliographic coupling in 190 articles

The smart local moving algorithm method is also used to predict the direction of future research in bibliographic coupling analysis (Van Eck & Waltman, 2009). The bibliographic coupling of the SE research is visualized in Figure 4. The results of bibliographic coupling analysis showed that SE publications formed seven themes (Table 2).

Themes	Representative citations
Theme 1. SE review and SE toward the sustainable development	Choi and Majumdar (2014), Dentchev et al. (2016), Kraus et al. (2017), van der Have and Rubalcaba (2016), Rey-Martí et al. (2016)
Theme 2. Entrepreneurial opportunities and crowdfunding.	Calic and Mosakowski (2016), Parhankangas and Renko (2017), Yitshaki and Kropp (2016), Davidsson (2014)
Theme 3. Intention and social innovation	Kai Hockerts (2017), Hockerts (2015), Phillips et al., (2016), Tracey and Stott (2017)
Theme 4. Institutions and environment in SE	Ute Stephan et al. (2015), Hechavarria et al. (2017), Horisch, Kollat, and Brieger (2017), Nicolaisen, (2010)
Theme 5. Hybrid organizations and social change	. Stephan et al. (2016), McMullen and Warnick (2016)
Theme 6. Social value creation	Grieco, Michelini, and Iasevoli (2018), Kroeger and Weber (2014)
Theme 7. Dimensions and measurement of social goal	Stevens, Moray, and Bruneel (2015), Stevens et al. (2015)

In addition, the first theme comes from bibliographic-coupling analysis shows a link to the first two themes in the co-citation analysis. The results from bibliographic-coupling analysis show the



**Table 3. The comparison co-citation themes and bibliographic coupling themes**

Themes	Co-citation themes	Bibliographic coupling themes
Theme 1	The concepts of SE and related issues	SE review and SE toward the sustainable development
	Issues related to management in SE	
Theme 2	Social entrepreneurs and potential social entrepreneurs	Entrepreneurial opportunities and crowdfunding. Intention and social innovation
	Social innovation in SE	
Theme 3	Institutional contexts	Institutions and environment in SE
Emerging trends		Hybrid organizations
		Social value creation
		Dimensions and measurement of social goal

*Source: author*

trend of conducting a review of SE studies. Many reviews were conducted with diverse approaches to provide in-depth knowledge of SE (Choi & Majumdar, 2014; Rey-Martí et al., 2016), especially SE definitions and issues related to governance in social enterprises are also concerned in relation to sustainable development.

There is a certain similarity between the third and the fourth theme in the co-citation analysis and the second and the third theme in the bibliographic coupling analysis. Social entrepreneurial intention and social innovation remain research directions that receive a lot of attention from scholars. Hence, the results from bibliographic coupling analysis show the emergence of crowd funding studies in SE. The upcoming research findings should focus on the background factors such as human capital, social capital, family background, education, role models and experience in relation to social entrepreneurial intention. Moreover, future studies must investigate extremely the role of the relationship between SE and social innovation; the impact of SE and social innovation on other aspects related to social innovations such as social movement, corporate social responsibility, economic development, and social change.

Regarding institutions and the environment in SE, this research focuses on understanding that country context facilitates SE (Stephan et al., 2015). In addition, the role of culture and the role of the business environment in social entrepreneurial orientation were also interested in this theme. More studies should be focused on Asian and African countries, where SE level is still low. Cross-cultural studies are also necessary in the development of SE in different cultures. Future research must survey on various industries, cultures, interactions between culture and personal-level variables, and individuals from different ethnic backgrounds.

Emerging topics include hybrid organizations, social value creations, dimensions, and social measurements. Various discussions should be organized, which is essential for hybrid organizations. Likely, comparative analyses between diverse modes of organization regarding business model, value creation, and social value creation. Creating social values and the pursuit of social goals are a prerequisite task of social enterprises. The number of social enterprises is increasing steadily, but the social impacts have not been measured significantly by unified approaches. Thus, the upcoming surveys must take advantage of methodologies that can measure the creation of social values or social goals.

Overall, this research aims to apply both co-citation analysis and bibliographic coupling analysis in order to support the conceptual structures, investigate existing research directions, and suggest

the emerging tendencies in SE. Otherwise, this study also contributes to the SE literature by categorizing SE studies, identifying highlighted trends in SE by co-citation analysis and bibliographic coupling analysis. However, the current study is not free from limitations. The usage of co-citation analysis and bibliographic coupling analysis might be misleading because it relies entirely on citations. The definition of themes depends on the evaluation of authors; thus, it might be biased. Some emerging tendencies might be ignored due to the deficiency of comprehensively collected publications. Consequently, future studies must utilize a combination of bibliometric analysis and other qualitative or quantitative approaches to achieve valuable knowledge from SE research.

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No potential conflict of interest was reported by the author(s).

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#### References

- Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and commercial entrepreneurship: Same, different, or both? *Entrepreneurship theory and practice*, 30(1), 1–22. <https://doi.org/10.1111/j.1540-6520.2006.00107.x>
- Bacq, S., & Alt, E. (2018). Feeling capable and valued: A prosocial perspective on the link between empathy and social entrepreneurial intentions. *Journal of Business Venturing*, 33(3), 333–350 <https://doi.org/10.1016/j.jbusvent.2018.01.004>.
- Bacq, S., & Janssen, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. *Entrepreneurship and Regional Development*, 23(5–6), 373–403. <https://doi.org/10.1080/08985626.2011.577242>
- Benckendorff, P., & Zehrer, A. (2013). A network analysis of tourism research. *Annals of Tourism Research*, 43(1), 121–149. <https://doi.org/10.1016/j.annals.2013.04.005>
- Bichteler, J., & Eaton, E. A., III. (1980). The combined use of bibliographic coupling and cocitation for document retrieval. *Journal of the American Society for Information Science*, 31(4), 278–282. <https://doi.org/10.1002/asi.4630310408>
- Boyack, K. W., & Klavans, R. (2010). Co-citation analysis, bibliographic coupling, and direct citation: Which citation approach represents the research front most accurately? *Journal of the American Society for Information Science and Technology*, 61(12), 2389–2404. <https://doi.org/10.1002/asi.21419>
- Calic, G., & Mosakowski, E. (2016). Kicking Off Social Entrepreneurship: How A Sustainability Orientation Influences Crowdfunding Success. *Journal of Management Studies*, 53(5), 738–767. <https://doi.org/10.1111/joms.12201>
- Castillo-Vergara, M., Alvarez-Marin, A., & Placencio-Hidalgo, D. (2018). A bibliometric analysis of creativity in the field of business economics. *Journal of Business Research*, 85(1), 1–9. <https://doi.org/10.1016/j.jbusres.2017.12.011>
- Chang, Y.-W., Huang, M.-H., & Lin, C.-W. (2015). Evolution of research subjects in library and information science based on keyword, bibliographical coupling, and co-citation analyses. *Scientometrics*, 105(3), 2071–2087. <https://doi.org/10.1007/s11192-015-1762-8>
- Chell, E. (2007). Social enterprise and entrepreneurship: towards a convergent theory of the entrepreneurial process. *International small business journal*, 25(1), 5–26 <https://doi.org/10.1177/026624260707177>.
- Chell, Nicolopoulou, and Karatas-Ozkan, M. (2010). Social entrepreneurship and enterprise: International and innovation perspectives. *Entrepreneurship and Regional Development*, 22(6), 485–493. <https://doi.org/10.1080/08985626.2010.488396>
- Chell, Spence, L. J., Harris, J. D., Harris, J. D., & Harris, J. D. (2016). Social entrepreneurship and business ethics: does social equal ethical? *Journal of Business Ethics*, 133(4), 619–625. <https://doi.org/10.1007/s10551-014-2439-6>
- Cherrier, H., Goswami, P., & Ray, S. (2018). Social entrepreneurship: Creating value in the context of institutional complexity. *Journal of Business Research*, 861, 245–258. <https://doi.org/10.1016/j.jbusres.2017.10.056>
- Choi, N., & Majumdar, S. (2014). Social entrepreneurship as an essentially contested concept: Opening a new avenue for systematic future research. *Journal of Business Venturing*, 29(3), 363–376. <https://doi.org/10.1016/j.jbusvent.2013.05.001>
- Cicea, C., & Marinescu, C. (2021). Bibliometric analysis of foreign direct investment and economic growth relationship. A research agenda. *Journal of Business Economics and Management*, 22(2), 445–466. <https://doi.org/10.3846/jbem.2020.14018>
- Corner, P. D., & Ho, M. (2010). How opportunities develop in social entrepreneurship. *Entrepreneurship theory and practice*, 34(4), 635–659. <https://doi.org/10.1111/j.1540-6520.2010.00382.x>
- Dacin, M. T., Dacin, P. A., & Tracey, P. (2011). Social Entrepreneurship: A Critique and Future Directions. *Organization science*, 22(5), 1203–1213. <https://doi.org/10.1287/orsc.1100.0620>
- Datta, P. B., & Gailey, R. (2012). Empowering women through social entrepreneurship: Case study of a women's cooperative in India. *Entrepreneurship theory and practice*, 36(3), 569–587 <https://doi.org/10.1111/j.1540-6520.2012.00505.x>.
- Davidson, J., Jones, S., Molloy, L., & Kejser, U. B. (2014). Emerging good practice in managing research data and research information within UK Universities. *Procedia Computer Science*, 33(1), 215–222. <https://doi.org/10.1016/j.procs.2014.06.035>

- Dentchev, N., Baumgartner, R., Dieleman, H., Johannsdottir, L., Jonker, J., Nyberg, T., and van Hoof, B. (2016). Embracing the variety of sustainable business models: social entrepreneurship, corporate intrapreneurship, creativity, innovation, and other approaches to sustainability challenges. *Journal of Cleaner Production*, 113(1), 1–4. <https://doi.org/10.1016/j.jclepro.2015.10.130>
- Desa, G. (2012). Resource mobilization in international social entrepreneurship: Bricolage as a mechanism of institutional transformation. *Entrepreneurship theory and practice*, 36(4), 727–751. <https://doi.org/10.1111/j.1540-6520.2010.00430.x>
- Desa, G., & Basu, S. (2013). Optimization or Bricolage? Overcoming Resource Constraints in Global Social Entrepreneurship. *Strategic Entrepreneurship Journal*, 7(1), 26–49. <https://doi.org/10.1002/sej.1150>
- Doherty, B., Haugh, H., & Lyon, F. (2014). Social enterprises as hybrid organizations: A review and research agenda. *International Journal of Management Reviews*, 16(4), 417–436. <https://doi.org/10.1111/ijmr.12028>
- Estrin, S., Mickiewicz, T., & Stephan, U. (2013). Entrepreneurship, social capital, and institutions: Social and commercial entrepreneurship across nations. *Entrepreneurship theory and practice*, 37(3), 479–504. <https://doi.org/10.1111/etap.12019>
- Ferreira, F. A. (2018). Mapping the field of arts-based management: Bibliographic coupling and co-citation analyses. *Journal of Business Research*, 85(1), 348–357. <https://doi.org/10.1016/j.jbusres.2017.03.026>
- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91(3), 481–510. <https://doi.org/10.1086/228311>
- Grieco, C. (2018). What do social entrepreneurs need to walk their talk? Understanding the attitude-behavior gap in social impact assessment practice. *Nonprofit Management & Leadership*, 29(1), 105–122. <https://doi.org/10.1002/nml.21310>
- Haugh, H. (2007). New strategies for a sustainable society the growing contribution of social entrepreneurship. *Business Ethics Quarterly*, 17(4), 743–749. <https://doi.org/10.5840/beq20071747>
- Hechavarria, D. M., Terjesen, S. A., Ingram, A. E., Renko, M., Justo, R., & Elam, A. (2017). Taking care of business: the impact of culture and gender on entrepreneurs' blended value creation goals. *Small business economics*, 48(1), 225–257. <https://doi.org/10.1007/s11187-016-9747-4x>
- Hockerts, K. (2015). How hybrid organizations turn antagonistic assets into complementarities. *California Management Review*, 57(3), 83–106. <https://doi.org/10.1525/cmr.2015.57.3.83>
- Hockerts, K. (2017). Determinants of social entrepreneurial intentions. *Entrepreneurship theory and practice*, 41(1), 105–130. <https://doi.org/10.1111/etap.12171>
- Horisch, J., Kollat, J., & Brieger, S. (2017). What influences environmental entrepreneurship? A multilevel analysis of the determinants of entrepreneurs' environmental orientation. *Small business economics*, 48(1), 47–69. <https://doi.org/10.1007/s11187-016-9765-2>
- Kraus, S., Burtscher, J., Niemand, T., Roig-Tierno, N., & Syrja, P. (2017). Configurational Paths to Social Performance in SMEs: The Interplay of Innovation, Sustainability, Resources and Achievement Motivation. *Sustainability*, 9(10), 1–17. <https://doi.org/10.3390/su9101828>
- Kroeger, A., & Weber, C. (2014). DEVELOPING A CONCEPTUAL FRAMEWORK FOR COMPARING SOCIAL VALUE CREATION. *Academy of management Review*, 39(4), 513–540. doi: 10.5465/amr.2012.0344
- Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5–6), 411–432. [https://doi.org/10.1016/S0883-9026\(98\)00033-0](https://doi.org/10.1016/S0883-9026(98)00033-0)
- Lepoutre, J., Justo, R., Terjesen, S., & Bosma, N. (2013). Designing a global standardized methodology for measuring social entrepreneurship activity: the Global Entrepreneurship Monitor social entrepreneurship study. *Small business economics*, 40(3), 693–714. <https://doi.org/10.1007/s11187-011-9398-4>
- Leung, X. Y., Sun, J., & Bai, B. (2017). Bibliometrics of social media research: A co-citation and co-word analysis. *International Journal of Hospitality Management*, 66(1), 35–45. <https://doi.org/10.1016/j.ijhm.2017.06.012>
- Leydesdorff, L., Carley, S., & Rafols, I. (2013). Global maps of science based on the new Web-of-Science categories. *Scientometrics*, 94(2), 589–593. <https://doi.org/10.1007/s11192-012-0784-8>
- Liñán, F., & Chen, Y. W. (2009). Development and Cross-Cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice*, 33(3), 593–617. <https://doi.org/10.1111/j.1540-6520.2009.00318.x>
- Mahfuz Ashraf, M., Razaque, M. A., Liaw, S.-T., Ray, P. K., & Hasan, M. R. (2019). Social business as an entrepreneurship model in emerging economy: Systematic review and case study. *Management Decision*, 57(5), 1145–1161. <https://doi.org/10.1108/MD-04-2017-0343>
- Mair, & Noboa. (2006). *Social entrepreneurship: How intentions to create a social venture are formed*. Palgrave Macmillan.
- Martyn, J. (1964). Bibliographic coupling. *Journal of Documentation*, 20(4), 236–236. <https://doi.org/10.1108/eb026352>
- McCain, K. W. (1990). Mapping authors in intellectual space: A technical overview. *Journal of the American Society for Information Science*, 41(6), 433–443. [https://doi.org/10.1002/\(SICI\)1097-4571\(199009\)41:6<433::AID-ASII11>3.0.CO;2-Q](https://doi.org/10.1002/(SICI)1097-4571(199009)41:6<433::AID-ASII11>3.0.CO;2-Q)
- McMullen, J. S. (2011). Delineating the Domain of Development Entrepreneurship: A Market-Based Approach to Facilitating Inclusive Economic Growth. *Entrepreneurship theory and practice*, 35(1), 185–215. <https://doi.org/10.1111/j.1540-6520.2010.00428.x>
- McMullen, J. S., & Warnick, B. J. (2016). Should We Require Every New Venture to Be a Hybrid Organization?. *Journal of Management Studies*, 53(4), 630–662. <https://doi.org/10.1111/joms.12150>
- Millman, C., Li, Z., Matlay, H., & Wong, W.-C. (2010). Entrepreneurship education and students' internet entrepreneurship intentions: Evidence from Chinese HEIs. *Journal of Small Business and Enterprise Development*, 17(4), 569–590. <https://doi.org/10.1108/14626001011088732>
- Montgomery, A. W., Dacin, P. A., & Dacin, M. T. (2012). Collective Social Entrepreneurship: Collaboratively Shaping Social Good. *Journal of business ethics*, 111(3), 375–388. <https://doi.org/10.1007/s10551-012-1501-5>
- Nga, J. K. H., & Shamuganathan, G. (2010). The influence of personality traits and demographic factors on social entrepreneurship start up intentions. *Journal of business ethics*, 95(2), 259–282. <https://doi.org/10.1007/s10551-009-0358-8>
- Nicholls, A. (2008). The new social entrepreneurship: What awaits social entrepreneurship ventures?.

- International Small Business Journal, 26(2), 247–251. <https://doi.org/10.1177/02662426080260020503>
- Nicholls, A. (2009). We do good things, don't we?: 'Blended Value Accounting' in social entrepreneurship. *Accounting Organizations and Society*, 34(6–7), 755–769. <https://doi.org/10.1016/j.aos.2009.04.008>
- Nicolaisen, J. (2010). Bibliometrics and citation analysis: From the science citation index to cybermetrics. *Journal of the American Society for Information Science and Technology*, 61(1), 205–207. <https://doi.org/10.1002/asi.21181>
- Pache, A.-C., & Santos, F. (2013). Embedded in hybrid contexts: How individuals in organizations respond to competing institutional logics Institutional logics in action, part B (pp. 3–35): Emerald Group Publishing Limited.
- Parhankangas, A., & Renko, M. (2017). Linguistic style and crowdfunding success among social and commercial entrepreneurs. *Journal of Business Venturing*, 32(2), 215–236. <https://doi.org/10.1016/j.jbusvent.2016.11.001>
- Peredo, A. M., & McLean, M. (2006). Social entrepreneurship: A critical review of the concept. *Journal of World Business*, 41(1), 56–65. <https://doi.org/10.1016/j.jwb.2005.10.007>
- Perrini, F., Vurro, C., & Costanzo, L. A. (2010). A process-based view of social entrepreneurship: From opportunity identification to scaling-up social change in the case of San Patrignano. *Entrepreneurship and Regional Development*, 22(6), 515–534. <https://doi.org/10.1080/08985626.2010.488402>
- Phillips, W., Lee, H., Ghobadian, A., O'Regan, N., & James, P. (2016). Social innovation and social entrepreneurship: A systematic review. *Group & Organization Management*, 41(2), 1–34. <https://doi.org/10.1177/1059601116633936>
- Rawhouser, H., Cummings, M., & Newbert, S. L. (2019). Social Impact Measurement: Current Approaches and Future Directions for Social Entrepreneurship Research. *Entrepreneurship Theory and Practice*, 43(1), 82–115. <https://doi.org/10.1177/1042258717727718>
- Rey-Martí, A., Ribeiro-Soriano, D., & Palacios-Marqués, D. (2016). A bibliometric analysis of social entrepreneurship. *Journal of Business Research*, 69(5), 1651–1655. <https://doi.org/10.1016/j.jbusres.2015.10.033>
- Saeabi, T., Foss, N. J., & Linder, S. (2019). Social entrepreneurship research: Past achievements and future promises. *Journal of Management*, 45(1), 70–95. <https://doi.org/10.1177/0149206318793196>
- Shane, S., & Khurana, R. (2003). Bringing individuals back in: The effects of career experience on new firm founding. *Industrial and Corporate Change*, 12(3), 519–543. <https://doi.org/10.1093/icc/12.3.519>
- Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. *Encyclopedia of entrepreneurship*, 1(1), 72–90. 0.1093/oxfordhpb/9780199546992.003.0019
- Sharir, M., & Lerner, M. (2006). Gauging the success of social ventures initiated by individual social entrepreneurs. *Journal of world business*, 41(1), 6–20. <https://doi.org/10.1016/j.jwb.2005.09.004>
- Shaw, E., & de Bruin, A. (2013). Reconsidering capitalism: the promise of social innovation and social entrepreneurship? Introduction. *International Small Business Journal*, 31(7), 737–746. <https://doi.org/10.1177/0266242613497494>
- Small, H. (1973). Co-citation in the scientific literature: A new measure of the relationship between two documents. *Journal of the American Society for Information Science*, 24(4), 265–269. <https://doi.org/10.1002/asi.4630240406>
- Smith, B. R., & Stevens, C. E. (2010). Different types of social entrepreneurship: The role of geography and embeddedness on the measurement and scaling of social value. *Entrepreneurship and Regional Development*, 22(6), 575–598. <https://doi.org/10.1080/08985626.2010.488405>
- Stephan, U., Patterson, M., Kelly, C., & Mair, J. (2016). Organizations Driving Positive Social Change: A Review and an Integrative Framework of Change Processes. *Journal of management*, 42(5), 1250–1281. <https://doi.org/10.1177/0149206316633268>
- Stephan, U., Uhlaner, L. M., & Stride, C. (2015). Institutions and social entrepreneurship: The role of institutional voids, institutional support, and institutional configurations. *Journal of International Business Studies*, 46(3), 308–331. <https://doi.org/10.1057/jibs.2014.38>
- Stevens, R., Moray, N., & Bruneel, J. (2015). The Social and Economic Mission of Social Enterprises: Dimensions, Measurement, Validation, and Relation. *Entrepreneurship theory and practice*, 39(5), 1051–1082. <https://doi.org/10.1111/etap.12091>
- Stevens, R., Moray, N., Bruneel, J., & Clarysse, B. (2015). Attention allocation to multiple goals: The case of for-profit social enterprises. *Strategic Management Journal*, 36(7), 1006–1016. <https://doi.org/10.1002/smj.2265>
- Thompson, J., Alvy, G., & Lees, A. (2000). Social entrepreneurship—a new look at the people and the potential. *Management Decision*, 38(5), 328–338 <https://doi.org/10.1108/00251740010340517>
- Tracey, P., & Stott, N. (2017). Social innovation: a window on alternative ways of organizing and innovating. *Innovation-Management Policy & Practice*, 19(1), 51–60. <https://doi.org/10.1080/14479338.2016.1268924>
- van der Have, R. P., & Rubalcaba, L. (2016). Social innovation research: An emerging area of innovation studies? *Research Policy*, 45(9), 1923–1935. <https://doi.org/10.1016/j.respol.2016.06.010>
- van Eck, N., & Waltman, L. (2009). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- van Raan, A. F. (2005). For your citations only? Hot topics in bibliometric analysis. *Measurement: Interdisciplinary Research and Perspectives*, 3(1), 50–62. [https://doi.org/10.1207/s15366359mea0301\\_7](https://doi.org/10.1207/s15366359mea0301_7)
- Waltman, L., & Waltman, L. (2017). Citation-based clustering of publications using CitNetExplorer and VOSviewer. *Scientometrics*, 111(2), 1053–1070. <https://doi.org/10.1007/s11192-017-2300-7>
- Yitshaki, R., & Kropp, F. (2016). Entrepreneurial passions and identities in different contexts: a comparison between high-tech and social entrepreneurs. *Entrepreneurship and Regional Development*, 28(3–4), 206–233. <https://doi.org/10.1080/08985626.2016.1155743>
- Zahra, S. A., Gedajlovic, E., Neubaum, D. O., & Shulman, J. M. (2009). A typology of social entrepreneurs: Motives, search processes and ethical challenges. *Journal of Business Venturing*, 24(5), 519–532. <https://doi.org/10.1016/j.jbusvent.2008.04.007>
- Zahra, S. A., Rawhouser, H. N., Bhawe, N., Neubaum, D. O., & Hayton, J. C. (2008). Globalization of social entrepreneurship opportunities. *Strategic Entrepreneurship Journal*, 2(2), 117–131. <https://doi.org/10.1002/sej.43>
- Zhao, D., & Strotmann, A. (2008). Evolution of research activities and intellectual influences in information science 1996–2005: Introducing author bibliographic-coupling analysis. *Journal of the American Society for Information Science and Technology*, 59(13), 2070–2086. <https://doi.org/10.1002/asi.20910>



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