

Overview of Social Capital and Financial Cooperative through Bibliometric Visualizing from 1992-2022

Iwang Suwangsih, Nanik Kustiningsih

STIE Mahardhika Surabaya

iwang.suwangsih@stiemahardhika.ac.id, nanik@stiemahardhika.ac.id

ABSTRACT

Purpose : The purposes of this study to describe in the form of a map of research in the field of Social capital related to financial cooperative from international scale publications from the search engine Scopus.

Design/methodology/approach: This study uses bibliometric and analyze search results provided by Scopus and by using Vosviewer software to show the keyword groups that can be identified from all relevant research in this study.

Findings: There is very little research on social capital related to cooperatives, the results of the search for publications from 1992 to 2022 are only 175 documents.

Originality/value: This paper is original

Paper type: Research article

Keyword: *Bibliometric, Financial Cooperative, Scopus, Social Capital, Vosviewer*

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I. INTRODUCTION

Social connection among people in their families, workplaces and community can grow economic and social welfare (Majee & Hoyt, 2011). Cooperative is an organization whose activities revolve around people and their needs ((Hidalgo-Fernández et al., 2020). The modern cooperatives started as a response market failures of industrial capitalism, even though idea of cooperatives had existence since the advent of civilization (Mushonga, Arun, & Marwa, 2019). Cooperatives is a part of social economy so its aim is main not to get income, but bring about social needs. (Széll, 2018). According to Yu & Nilson (2019) cooperatives is links made to offer certain services so the members must have sufficient trust in each other and elected representatives not to be afraid that others will cheat. "Financial cooperatives are non-profit organisations that attribute to cooperative principles so the goal to donate supporting the increase of their local communities (ICA, 2019)".

In the rising world, there are dissimilar kinds of formal and informal financial organizations, one of them is financial cooperatives, it is one of the first and supreme common forms of alternative financial organizations through the world is formed to fill a gap left by commercial banks, which find it too expensive and too dangerous to lend to unfortunate or rural people (Périlleux, Vanroose, & D'Espallier, 2016).

"Social capital can show an essential role in explaining official efficiency, health and well-being, innovation and economic progress, through community engagement, and represents itself in the form of cooperative, economically productive linkages" (Chronopoulos, Sobiech, & Wilson, 2021). Social capital embraces members' trust, cooperatives' reputation, networks, etc. "The number of social capital that cooperatives enjoy between members and other stakeholders may have emotional impact to enthusiasm of members and of external financiers to supply capital" (Yu & Nilsson, 2018).

Social capital theory is an important perspective for studying the nature of relationships and cooperation between organizations (Adler & Kwon, 2002). Social capital be present in all organizations, such as cooperatives or investor-owned companies, etc (Yu & Nilsson, 2019). Social capital has also usual rising care in the current finance literature, where it has been exposed that social capital has an influence on financial and

economic results (Li, Ucar, & Yavas, 2022). Generally, social capital denotes a mixture of structural and cognitive elements, which, together, promote cooperation between people (Terzo, 2021)

In current ages, “some financial cooperative organization operate in the market has continued to failure, drawing attention to the possibility of their business models and raising questions about their significance more generally” (Poli, 2019; Uchida, Udell, & Watanabe, 2008). Whereas Cooperative is a member centric, democratically organized and community focused organization have remarkable potentiality of subsidizing in deficiency decrease (Bharadwaj, 2012). To reserve the variety of financial cooperative organizations, it may be vital that communities participate extra in social capital improving projects (Chronopoulos et al., 2021).

This research uses this bibliometric to describe and support previous research on the body literature by providing a large picture visualized from various time periods, authors, affiliations, subject areas, document types from all international scale publications. Bibliometric analysis is a enlargement of the meta-analysis research method (Bayu et al., 2020). Bibliometric data can provide an overview of all the key components of science, both the structure and productivity of academic activities at the national level at the macro research level which is broken down by country, international and regional cooperation, the ability of scientists to know about the development of scientific products and their effects, as well as institutional cooperation, etc. (Ball, 2017).

This research specifically discusses the positioning of research in the field of social capital related to financial cooperatives at the global level of the search engine Scopus from year to year. Based on a content analysis of current publications, we find gaps and chances of social capital research on financial cooperatives.

II. RESEARCH METHOD

This research describes visual trends in social capital and financial cooperatives studies which they had been issued globally in the last 30 years and have been indexed by Scopus. By using bibliometric data were castoff to examine search outcomes facility from Scopus and the VOSViewer application. Bibliometric analysis was done by using bibliometric indicators, which are the mechanisms used to analyze and interpret the data collected (Cavalcante, Coelho, & Bairrada, 2021). VOSviewer is a program that be advanced for constructing and viewing bibliometric maps (van Eck & Waltman, 2010), i.e. some of studies in many fields or countries, researchers, academic affiliations, keywords, and author association (Purnomo, Susanti, Sari, Firdaus, & Dewi, 2020). “VOSviewer also can be used to create author maps or journals based on co citation data or to build keyword maps based on shared incident data” (Laila et al., 2021)

The steps carried out in this study will be described in detail below.

A. Collect relevant publication

At the first step, we collected the documents about social capital and financial cooperative. They were carried out by measuring the status of the publication map in 24 years from 1992 to 2022, obtained 175 documents. The documents were used in this study is about social capital which related to financial cooperative by search engine Scopus. The key commands in searching the Scopus search engine are TITLE-ABS-KEY "Social Capital" AND "Financial Cooperative".

B. Perform Analyze search results by Scopus facility

The next step after obtaining relevant publications, we analyze the results to deliver knowledge about documents which produced per year, documents by author, documents by affiliation, document by country or territory, documents by subject area, documents by type, documents by funding sponsor.

C. Create a network map with VOS viewer software

At this step, the results of 175 publications were processed with the help of the VOS viewer software so that they produce documents based on author collaboration network and document by theme mapping.

D. Interpret the result of mapping theme

After obtaining a complete picture of the author collaboration network and the theme mapping that is formed, the data interpretation is carried out to deliver understanding of the body of literature in this field.

III. RESULTS

A. Document by year

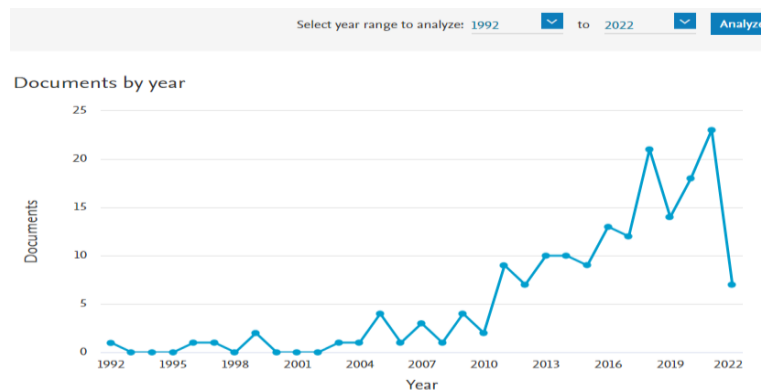


Figure 1 Documents by year about study of Social Capital and Financial Cooperatives

The sum of international publications on SC and FC studies have presented that not more documents which were published, from 1992 until 2022 only 175 documents, it can be seen in Figure 1, the greatest publication happened in 2021 there are 23 documents.

B. Documents by source

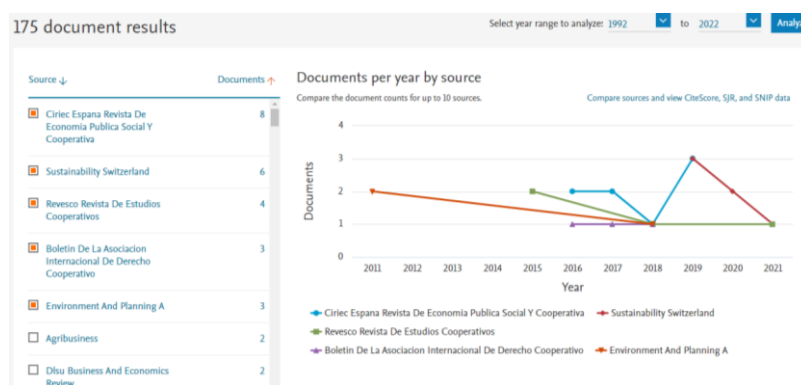


Figure 2 Documents by source about study of Social Capital and Financial Cooperative

“Ciriec Espana Revista De Economia Publica Social Y Cooperativa” was a journal which discussed about social capital and financial cooperatives, namely 8 documents. Then Sustainability Switzerland discussed 6 documents, Revesco Revista De Estudios Cooperativos discussed 4 documents, Boletin De La Asociacion Internacional De Derecho Cooperative and Environment And Planning A discussed each 3 documents, Agribusiness, Dlsu Business and Economics Review, Ecology and Society, Intangible Capital, Mediterranean Journal of social sciences, social enterprise journal, social and medicine, Wit Transactions on Information and communication Technologies discussed each 2 documents, whereas others journals only discussed 1 document, like AHP Journal Association For healthcare Philanthropy, Agriculture Economics Czech Republic, Agriculture and Food Security, Asian Social Science and so on.

C. Documents by Author

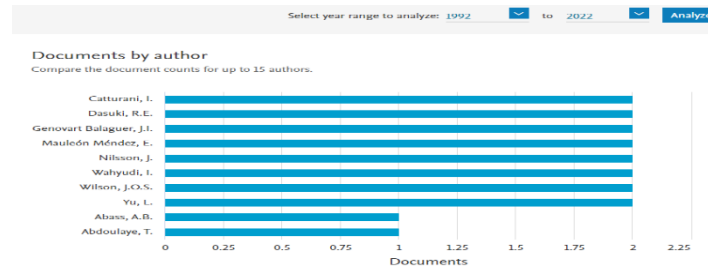


Figure 3 Documents by Author about study of SC and FC

Based on figure 3, it was mentioned that the author who produced the most documents namely catturani, I., Dasuki, R.E., Genovart Balaquer, J.I., Mauleon Mendez, E., Nilsson, J., Wahayudi, I., Wilson, J.O.S., and Yu, L. each produced 2 documents, the others only one documents.

D. Documents by Affiliation

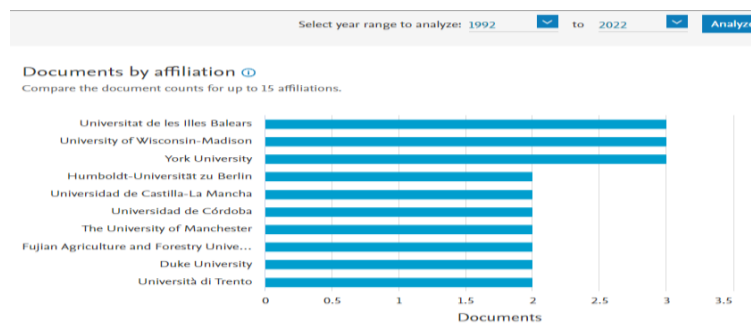


Figure 4. Documents by Affiliation about study of SC and FC

Base on affiliation, universitat de les illes Balears, University of Winconsin – Madison, York University produced each 3 documents, meanwhile Humboldt-Univesitat zu Berlin, Universidad de Castilla – la Mancha, Univesidad de Cordoba, The University of Manchester, Fujian Agriculture and Forestry University, Duke University, Universita di Trento, Radboud Universteit, Chinese Academy of Science, University of St Andrews, University of California, Berkeley, Sveriges lantbruks universitet, University of California, Los Angeles, University du Quebec a Montreal, McMaster University, University at Buffalo, “The State University of New York”, Universitas Indonesia, Degroote School of Business, Universidad de la Costa, Schulin School of Business and Makerere University Business School each of them produced 2 documents, whereas the others like Business University, Croatian Bureau of Statistics, Marketing, Inc., Southern California Industrial Areas Foundation, Foundation for Health Development and so on each of them only produced one documents.

E. Documents by Country or Territory

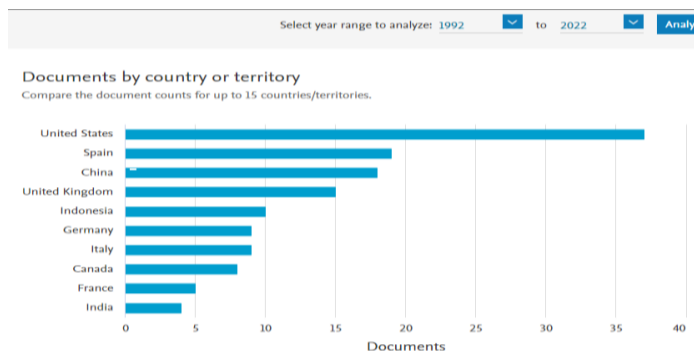


Figure 5. Documents by Country about study of SC and FC

The country which gave the biggest support to journal of SC and CC studies were the United States with 37 documents. Then Spain 19 documents, China with 18 documents, United Kingdom with 15 documents, Indonesia with 10 documents, Germany and Italy each 9 documents, Canada with 8 documents, France with 5 documents, India and Japan each with 4 documents, Brazil, Costa Rica, Ecuador, Finland, Netherland, Poland, Sweden each with 3 documents. Meanwhile Bangladesh, Chile, Colombia, Croatia, Israel, New Zealand, Nigeria, Peru, South Africa, Uganda and Ukraine each of them only two documents, whereas the others like Australia, Austria, Belgium, Brunei Darussalam, Ghana, Greece and so on only one document.

F. Documents by type

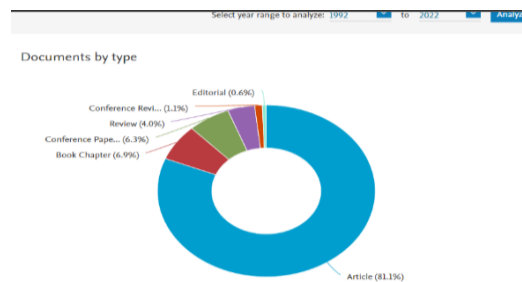


Figure 6. Documents by type about study of SC and FC

The maximum common kind of document in SC and FC studies were articles 142 documents (81.1%), after that “BookChapter” with 12 documents (6.9%), Conferencepaper with 11 documents (6.3%), Review with 7 documents (4.0%), Editorial only 1 document (0,6%).

G. Document by Subject Area

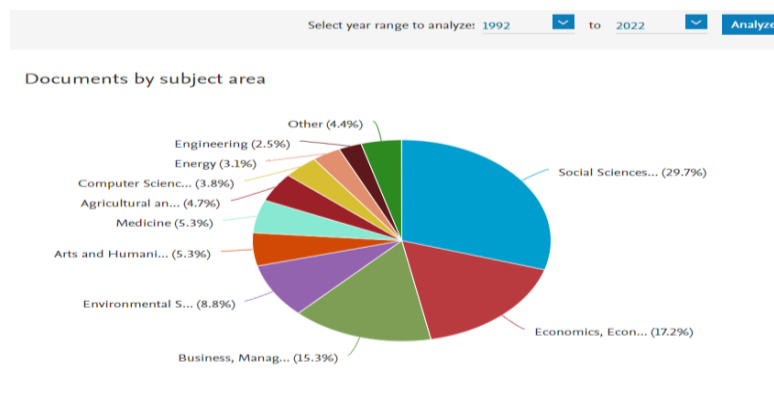


Figure 7. Documents by subject area about study of SC and FC

The greatest subject areas in international academic jurnal in SC and FC studies were Social Science with 95 documents (29.7%), Economics, Econometrics and Finance with 55 document (17.2%), Business,Management,and Accounting with 49 documents (15.3%). Followed by Environmental Sciences with 28 documents (8.8%), Arts and Humanities with 17 documents (5.3 %), Medicine (5.3%), Agricultural and Biological Sciences with 15 documents (4.7 %), Computer Sciences with 12 documents (3.8%), Energy with 10 documents (3.1%), “Engineering with 8 documents” (2.5%), Decision Science with 6 documents (2.0%), others 4.4%.

H. Documents by funding sponsor

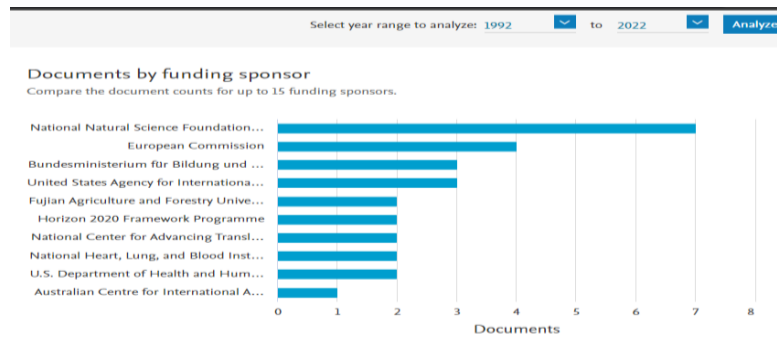


Figure 8. Documents by funding sponsor about study of SC and FC

The highest supporting foundations that support the publication of SC and FC studies were “National Natural Sciences Foundation” 7 documents, then European Commission 4 documents, Bundes ministerium for Bildung and United Stated Agency for International, each with 3 documents, Fujian Agriculture and Forestry University, Horizzon 2020 Framework Programme, National Center for Advancing Translational Sciences, “National Heart, Lung and Blood Institute, U.S., Department of Health and Human Services” each with 2 documents, and the last was Australian Center for International Agriculture only 1 document.

I. Document Map of Study Theme

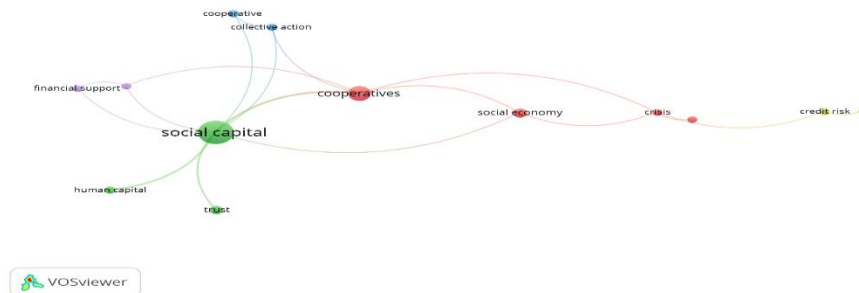


Figure 9. Document Map of Study Theme

The network map in Figure 9, it formed with the keywords social capital and financial cooperative with used Vosviewer software. The standard for a least number of documents connected to keywords is three repetitions. So, from 595 keywords there were only 14 keywords that meet the thresholds. It demonstrates that there were five groups of study themes based on research keywords connected to social capital and financial cooperative, namely:

1. Social Capital (SC) is described in green, this group consists of keywords related to social capital, human capital and trust.
2. Cooperatives is described in red, this group consists of keywords related to cooperative, social economy and crisis.
3. Financial support is described in purple, this group of keywords related to financial support and social enterprise
4. Cooperative is described in light blue, this group of keywords related to cooperative and collective action.
5. Credit risk is described in yellow, this group consists of keywords relation to credit risk and financial performance.

The keywords which are separated into 5 groups are established in the form of a colored circle indicating the groups, so it can be made in defining the trend of the keywords. Bibliometric analysis illustrates some keywords that are broadly used in the paper which is the object of study. The keywords that seem the greatest are shown by the larger the circle. For the moment, the line connection between keywords indications how much

it is connected to other keywords. It was know that the greatest familiar keywords are human capital, trust, social economy and crisis.

From the theme of this mapping, it provides an overview of the understanding of publications that have been carried out to enrich science in the field of social capital and financial cooperatives, especially by international researchers.

J. Document Map of Study Author

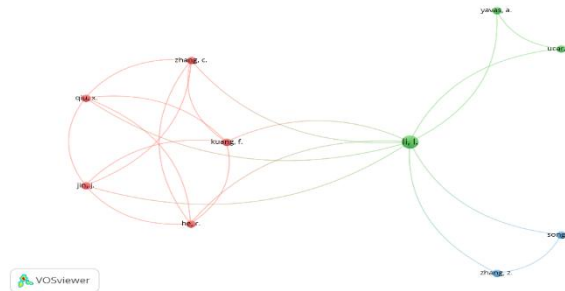


Figure 10. Document Map of Study Author

Figure 10 displays that there are 3 groups of collaboration network forms between authors in the social capital and financial cooperatives study with a number of criteria, the lowest sum of documents each author is one document, thus out of 426 authors it is found that 10 authors meet the threshold. There are three collaborative groups among researchers in the social capital and financial cooperatives fields.

1. The red group consists of 5 authors, namely kuang,f., he, R., jien, J., Qiu,X., and zhang,c.,
2. The green group consists of three authors, namely li,I., yavas,a., and ucar, e.,
3. The light blue group consists of two authors, namely zhang, z., and song,y.

IV. DATA ANALYSIS AND DISCUSSION

We can determine that the “trend on international publications” on social capital and financial cooperatives studies were not many in numbers, because for 30 years (1992-2022) only published 175 documents. The culmination of a publication on the social capital and financial cooperatives studies in 2021 is 23 documents. Social capital and financial cooperatives studies are subjected by developed countries, i.e. “United States” with 37 documents. The productive research institution is “universitat de les illes Balears”, University of Wisconsin – Madison, York University produced each 3 documents documents. The productive author in social capital and financial cooperatives studies is catturani, I., Dasuki, R.E., Genovart Balaquer, J.I., Mauleon Mendez, E., Nilsson, J., Wahayudi, I., Wilson, J.O.S., and Yu, L. each produced 2, and the greatest cited document type is article with 142 documents (81.1%). In meantime, the greatest study area in social capital and financial cooperatives studies is Social Science with 95 documents (29.7%). Social capital and financial cooperatives publications with the maximum number of document citations is Paul C.J., Weinthal E.S., Bellemare M.F., Jeuland M.A. (2016) work entitled " Social capital, trust, and adaptation to climate change: Evidence from rural Ethiopia" with 75 citations.

In standings of funding suggestions to information, this research suggests a merging affiliation grouping containing of social capital and financial cooperatives studies to describe the body of knowledge made from thirty years: Social Capital, Cooperatives, Collective action, Financial support and credit risk. As suggestions for applied, identifying key themes in the social capital and financial cooperatives sector primes to accepting the enlargement of studies to understand public issues and contexts, as well as the research gaps. With all of this, new studies can be led to address a lack of study and advance knowledge in the areas. The themes most researched also demonstrate the social capital and financial cooperatives contribution to Social Science, Economics, Econometrics and Finance, Business, Management, and Accounting. Coming research expectantly will give charities and description the effect of research by determining citations based on a mixture of data obtained from Scopus and Web of Science

V. CONCLUSION

The attention of this research is to try to novelty the enlargement of the social capital subject in research, specially in papers with the subject of social capital which relates to financial cooperatives. The results show that there is a rise in the sum of documents publications on this theme from year to year with a total of 175 documents publications along 30 years. Investigation on this subject has been carried out the greatest widely used country as the object of study is United States with a total of 37 documents, then Spain 19 documents, China with 18 documents, United Kingdom with 15 documents, Indonesia with 10 documents, Germany and Italy each 9 documents, Canada with 8 documents, France with 5 documents, India and Japan each with 4 documents, Brazil, Costa Rica, Ecuador, Finland, Netherlands, Poland, Sweden each with 3 documents.

The bibliometric mapping visualization illustrations that the research development map of this subject is divided into 5 groups. Group 1 consists of 3 keywords, group 2 consists of 3 keywords, group 3 consists of 2 keywords, group 4 consists of 2 keywords and group 5 consists of 2 keywords. It was found that the most familiar keywords are human capital, trust, social economy and crisis.

The upper journal ranking is "Ciriec Espana Revista De Economia Publica Social Y Cooperativa". The greatest cited paper with the title "Social capital, trust, and adaptation to climate change: Evidence from rural Ethiopia".

REFERENCES

- Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, 27(1), 17–40. <https://doi.org/10.5465/AMR.2002.5922314>
- Ball, R. (2017). An introduction to bibliometrics: New developments and trends. In *An Introduction to Bibliometrics: New Development and Trends*. <https://doi.org/10.1016/C2016-0-03695-1>
- Bayu, A., Nandiyanto, D., Biddinika, M. K., & Triawan, F. (2020). Indonesian Journal of Science & Technology How Bibliographic Dataset Portrays Decreasing Number of Scientific Publication from Indonesia. *Indonesian Journal of Science & Technology*, 5(1), 154–175.
- Bharadwaj, B. (2012). Roles of Cooperatives in Poverty Reduction : A Case of. 24(1), 120–139.
- Cavalcante, W. Q. de F., Coelho, A., & Bairrada, C. M. (2021). Sustainability and tourism marketing: A bibliometric analysis of publications between 1997 and 2020 using vosviewer software. *Sustainability (Switzerland)*, 13(9). <https://doi.org/10.3390/su13094987>
- Chronopoulos, D. K., Sobiech, A. L., & Wilson, J. O. S. (2021). Social capital and the business models of financial cooperatives: Evidence from Japanese Shinkin banks. *Financial Accountability and Management*, 37(4), 460–480. <https://doi.org/10.1111/faam.12282>
- Hidalgo-Fernández, A., Moreira Mero, N., Llor Alcivar, M. I., & González Santa Cruz, F. (2020). Analysis of organizational commitment in cooperatives in Ecuador. *Journal of Management Development*, 39(4), 391–406. <https://doi.org/10.1108/JMD-05-2019-0180>
- Laila, N., Rusydiana, A. S., Irfany, M. I., Imron, H. R., Srisusilawati, P., & Taqi, M. (2021). Energy economics in Islamic countries: A bibliometric review. *International Journal of Energy Economics and Policy*, 11(2), 88–95. <https://doi.org/10.32479/ijeep.10763>
- Li, L., Ucar, E., & Yavas, A. (2022). Social Capital and Mortgage Delinquency. *Journal of Real Estate Finance and Economics*, 64(3), 379–403. <https://doi.org/10.1007/s11146-020-09775-4>
- Majee, W., & Hoyt, A. (2011). Cooperatives and community development: A perspective on the use of cooperatives in development. *Journal of Community Practice*, 19(1), 48–61. <https://doi.org/10.1080/10705422.2011.550260>
- Mushonga, M., Arun, T. G., & Marwa, N. W. (2019). The cooperative movement in South Africa: Can financial cooperatives become sustainable enterprises? *Strategic Change*, 28(4), 259–271. <https://doi.org/10.1002/jsc.2268>
- Pérrilleux, A., Vanroose, A., & D'Espallier, B. (2016). Are Financial Cooperatives Crowded out by Commercial Banks in the Process of Financial Sector Development? *Kyklos*, 69(1), 108–134. <https://doi.org/10.1111/kykl.12105>
- Purnomo, A., Susanti, T., Sari, A. K., Firdaus, M., & Dewi, R. (2020). A study of digital entrepreneurship through bibliometric visualizing from 1993 to 2019. *Proceedings of 2020 International Conference on Information Management and Technology, ICIMTech 2020*, (August), 911–915. <https://doi.org/10.1109/ICIMTech50083.2020.9211270>
- Széli, G. (2018). The future of cooperatives and trade unions: the relevance for the question of democratization of society. *International Review of Sociology*, 28(2), 234–249. <https://doi.org/10.1080/03906701.2018.1477111>

- Terzo, G. (2021). Social capital, social economy and economic resilience of Italian provinces. *Papers in Regional Science*, 100(5), 1113–1135. <https://doi.org/10.1111/pirs.12618>
- van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- Yu, L., & Nilsson, J. (2018). Social capital and the financing performance of farmer cooperatives in Fujian Province, China. *Agribusiness*, 34(4), 847–864. <https://doi.org/10.1002/agr.21560>
- Yu, L., & Nilsson, J. (2019). Social capital and financial capital in Chinese cooperatives. *Sustainability (Switzerland)*, 11(8), 1–15. <https://doi.org/10.3390/su11082415>