



Who Likes SIBs? A Bibliometric Analysis of Academic Literature (Time Span 1990–2018)

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2.1 INTRODUCTION

This chapter aims to study the development in academic literature on SIBs focusing on the concept of this financial instrument. To some extent, our work can be considered as an evolution of Alec Fraser’s publication (*Narratives of Promise, Narratives of Caution: A Review of the Literature on Social Impact Bonds*, Fraser et al. 2016) who divided literature on SIBs existing in 2015 into three different narratives regarding SIBs (*PSR, FSR and cautionary narrative*). We aim to explore commonly held attitudes towards SIBs by better understanding the extent to which researchers hold a “*cautionary narrative*”, as identified by Fraser et al. (2016). If an

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M. La Torre and H. Chiappini (eds.), *Contemporary Issues
in Sustainable Finance*, Palgrave Studies
in Impact Finance, https://doi.org/10.1007/978-3-030-65133-6_2

author has a cautionary view of the instrument, is this cautionary view related to its risk or to its potential?

To properly conduct our analysis, we set up the following research questions:

- RQ1 How has scientific literature regarding SIBs and Impact Finance been evolving? As part of RQ1, we also considered what the main focuses for research have been.
- RQ2 Is there a predominant feeling (optimistic or pessimistic) in academia regarding this issue?

To answer the questions, we started from a classic literature review methodology, that comprised searching databases using selected keywords and then setting up exclusion criteria to select a final sample. In our case, the databases investigated were mainly Web of Science and Google Scholar, and we found more than 500 academic papers from which we shortlisted 97, all of which were written between 2010 and 2018. Having obtained our final sample, we did a sentiment analysis on the papers we selected, then we analysed the sample using Bibliometrix. Bibliometrix is an R-package built to conduct bibliometric analysis following the standard workflow for science mapping. We are unique in our use of Bibliometrix for our mapping, which means that our work is different from existing literature reviews on SIBs. We hope that this provides an inspiration for other scholars to run bibliometric analysis on their topic of interest in order to further advance literature reviews studies by using new technology. This process is explained in depth in our methodology chapter.

SIBs present a new and innovative way to finance social programmes and can be seen as part of a much broader concept known as Social Finance. When talking about SIBs, impact investing, and social enterprises, there is a lot of diversity (Hochstadter and Scheck 2015). One commonality in the variety of aspects and actors is that all have the same objective of combining revenue generation with social impact.

In the last decade, social finance has emerged as an alternative to the traditional way of thinking about financial resources and their use (OECD 2014; Social Investment Task Force 2010). Historically, social entrepreneurs have relied on grants and contracts from government agencies or foundations as a primary source of financial support, but in

times of fiscal constraint, these sources may become more limited. Therefore, new forms of capital for investment in social innovation are needed (Moore et al. 2012). Social finance has an important role in stimulating social innovation because the investment typically challenges the institutional logics associated with conventional investor rationalities (Nicholls and Murdock 2012; Nicholls 2010). This emerging trend in thinking has had sporadic growth, with some countries developing their research before others.

Each country independently developed a unique solution to meet the most significant social issues of our times. Although a large number of very diverse communities explored this issue in different ways, there is some heterogeneity in thinking, not only in the sectors of operation and instruments used, but also in creating a shared definition of social enterprise itself. The social dimension of each organisation sets value-creation as the ultimate goal, however, the ways in which this is achieved are wide-ranging. It was unclear to us initially what to include in the definition of SIBs as many scholars have a slightly different understanding. This is due to a drive to identify which metrics and sets of variables motivate individual actions that could be used on a wider scale internationally.

SIBs are considered part of Social Impact Investing (henceforth, SII), a term coined in 2008 by JP Morgan and Rockefeller Foundation.¹ SII is an investment culture that endeavours to make long-term social gains by addressing social problems rather than attempting to maximise financial returns (Leventhal 2012). Pension fund managers and other institutional investors are increasingly making investments that are socially responsible and which pursue more active roles in corporate governance (Apostolakis et al. 2018). According to Wood et al. (2013), impact investing can be defined as investing with the explicit purpose of creating measurable social or environmental benefits in addition to financial returns.

The motivation for creating SIBs now is the payment-by-results schemes associated with target-based performance management that were popularised under the Blair government in the UK during the 2000s, which aimed to link contracts to specific outcomes (Warner 2013).

In this section of the chapter, we outline the steps we used to answer our research questions, detailing the methodology and motivation for using Bibliometrix. We also interpret the results obtained after employing our bibliometric analysis. We found five factors that govern what academic research is produced, which are based on: what type of research is most popular for published papers, what areas of the world are partnering in

research into SIBs, how many academic actors are researching into each cluster, how wide the range of metadata associated with existing literature is, what dynamics exist between different clusters, and what sources influence different authors.

One universal finding we identified is that most academic literature considers SIBs as a useful financial tool for governments. This highlights an important consideration about the possible implication and use of our study: if we assume, based on available data, that attitudes towards SIBs are largely positive globally, then there is scope for governments to explore how SIBs may be applied to help solve local issues. Our research could thus be used as an exploratory map for governments and other actors setting out on this study.

One of the main limitations of our study is that there is a lack of quantitative data in the literature of SIBs, and particularly into outcomes reached, impact and revenues generated. That is, while we hope that our research is replicable, we cannot yet say that our findings are supported by other literature research at this time as there is currently little current empirical evidence of the optimistic consideration that is given to SIBs by scholars.

2.2 METHODOLOGY

To address our research questions, we chose to conduct a bibliometric analysis since it seemed the most appropriate methodology available to investigate the development of literature and academic discourse about SIBs. As recommended by Zupic and Cater (2015), we followed the standard workflow for bibliometric analysis, that consists of five different stages:

1. Study design;
2. Data collection;
3. Data analysis;
4. Data visualisation;
5. Interpretation.

To conduct our bibliometric analysis on mainly existing academic literature, we decided to use an innovative open-access software called “Bibliometrix” developed by Aria and Cuccurullo (2017) as this tool is

designed to assist scholars to complete a recommended workflow. It is different from other science mapping tools (Aria and Cuccurullo 2017) available.

This choice was made for several reasons, including the following:

- Objectivity;
- Replicability;
- Flexibility.

Objectivity is created by following an automated process. In this case, one that Bibliometrix embeds in its source code. As Aria and Cuccurullo (2017) state, “*in this paper, we propose a unique tool, developed in the R language, which follows a classic logical bibliometric workflow that we reconstruct*”.

Replicability arises from objectivity in this case, as whoever uses the same procedures and similar source documents should find the same results.

Flexibility, which is our biggest consideration, allowed us to create a dataset, divide it into different clusters, and analyse the dataset we made, maintaining the clusterisation we did. “*As it is programmed in R, the proposed tool is flexible, can be rapidly upgraded, and can be integrated with other statistical R-packages*”. We also used Bibliometrix as it is programmed to take information from academic databases such as Scopus and Web of Science (henceforth, WOS), that match our source documents.

The first step of our method is study design, developing Alec Fraser’s model that he sets out in his publication. With his approach, Fraser et al. (2016) identified different narratives based on the perspective of the authors studied. In the PSR Narrative, SIBs are considered a tool for the public actor. “*From this perspective, the opportunity offered by SIBs to merge public and private values is seen as advantageous*” (Fraser et al. 2016, p. 6).

In the FSR Narrative, SIBs are considered a tool by which profits can be gained through social purposes. “*It [is proposed] that blending public and private values will offer private sector actors (particularly financial institutions) an opportunity to affect socially worthwhile change through social entrepreneurship whilst simultaneously pursuing commercial interests*” (Fraser et al. 2016, p. 6).

In the Cautionary Narrative, Fraser classified all papers that discuss SIBs in a “prudent way” as being written in either a public or private perspective. He simultaneously highlighted problems regarding measurement of outcome, risk of *financialization* (Lake 2015) and possible distortion of social mission of social enterprises (Joy and Shields 2013). It is this last narrative that we consider the most interesting, because it gives us a starting point by which to conduct in-depth analysis into the feeling of cautionary authors. In our analysis, we identify if the caution shown by authors is linked to either an optimistic or pessimistic attitude, and if this attitude can be framed in one of the two previous narratives that Fraser identified, that is, either PSR or FSR.

For the second stage of our workflow (**2. Data collection**), we followed the steps described below.

2.2.1 *Step One: Investigating Keywords*

1. We found the keywords identified by Fraser et al. in 2016, namely:
 - (a) ‘Social impact bond’
 - (b) ‘Social AND impact AND bond’
 - (c) ‘Pay* for success bond*’
 - (d) ‘Pay* for success contract*’
 - (e) ‘Development impact bond*’
 - (f) ‘Outcome based contract’
 - (g) ‘Impact invest*’
 - (h) ‘Impact-first invest*’
 - (i) ‘Social innovation financ*’
 - (j) ‘Health impact bond*’
 - (k) ‘Social impact invest*’
 - (l) ‘Social benefit bond’
 - (m) ‘Social bond’
 - (n) “Social finance”
 - (o) “Social impact finance”.
2. We largely used two different databases: Clarity WoS and Google Scholar, and found 547 references in total. We then searched independently through papers that were not included in these databases, but cited by Fraser, over the timespan 1990–2018;
3. We set the exclusion criteria:

- (a) All documents that were not academic papers were deleted from our list (including proceeding papers and book chapters);
- (b) All documents that were not written in English were deleted from the list;
- (c) All papers that refer to “Social Bond Theory” were deleted;
- (d) All papers that did not directly refer to SIBs or Social Finance in the abstract, list of keywords or introduction were excluded.

2.2.2 *Step Two: Analysis of the Authors’ Sentiment*

1. We created four clusters, based on a matrix of the PSR Narrative and FSR Narrative, as follows:
 - (a) Financial Optimistic;
 - (b) Financial Pessimistic;
 - (c) Public Pessimistic and
 - (d) Public Optimistic.

We considered “optimistic” the papers in which SIBs are seen as tools that might have positive consequences both in FSR and PSR. For instance, if the adoption of a SIB scheme is considered a potential tool to fund a social enterprise, or if it is seen as a way to address social problems that create savings and create additional value for the public actor, the paper would be classified as being “optimistic”. Likewise, we classified papers as “pessimistic” if there was potential for a SIB to negatively affect public and private actors. For instance, when a paper highlights the agency problem that public and private actors might face in a SIB contract or distorts social mission.

2. We set up exclusion criteria:
 - (a) All papers that refer to SIBs or social finance only once or twice in the body of the text without allowing a sentiment analysis of the tool were deleted.

During the period February 2019–June 2019, we skim-read all the papers and selected the cluster to which it belonged. We then matched the results and found a set of 97 academic papers that met all conditions required to be necessary for our analysis. We then concluded the second step of the

Table 2.1 Description of the research sample

<i>Description</i>	<i>Results</i>
Documents	97
Sources (journals, books, etc.)	75
Period	2011–2018
Average citations per documents	6.253
Authors	170
Documents per author	0.570588
Authors per document	1.75
Annual growth rate	72.12%

workflow and proceeded to the third and fourth steps: **data analysis and data visualisation**.

Bibliometrix data analysis tools enable an array of documents to be created, and with that, a matrix, based on the attributes selected. For example, if the authors of a document were selected, Bibliometrix would create a matrix “ $N \times M$ ” setting “ $N = Documents$ and $M = authors$ ”.

Since Bibliometrix is open and customisable, we made a spreadsheet with our sentiment analysis and clusterisation, imported it into Bibliometrix, and used that to analyse the data included in our 97 records.

Our dataset, consisting of the papers we identified, is summarised in the table below (Table 2.1) and a graph of the scientific production over one year is provided (Fig. 2.1).

2.3 FINDINGS

Our research analysis allowed us to identify five main findings:

1. The first refers to what type of research is most popular for published papers (Public-Optimistic, Public-Pessimistic, Finance-Optimistic, or Finance-Pessimistic);
2. The second allows us to explore what areas of the world are partnering into research on SIBs;
3. The third investigates the number of academics that are researching into each cluster, and includes a qualitative analysis of coherency of writing in each cluster;
4. The fourth explores the range of metadata associated with the existing literature, namely, the relationship between the author’s

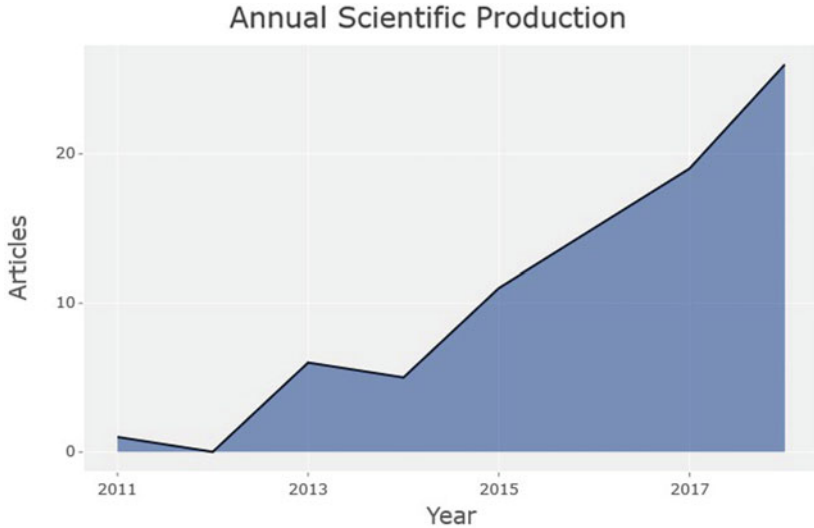


Fig. 2.1 Annual scientific production of the research sample

keywords, clusters and journals of publication, and then the relationship between author's keywords, clusters and national origins of research;

5. The fifth identifies the dynamics between different clusters, and sources of influence for different authors.

Hereafter a description of each finding.

2.3.1 *Finding 1: Distribution of Paper by Cluster and Trend*

By analysing our created dataset, we noticed that almost half of the papers could be included in the Public Optimistic cluster. The share of papers per cluster is summarised in the matrix below (Fig. 2.2). A full list of papers in each cluster is included in Appendix A.

The reason why the majority of the papers analysed are found in the Public-Optimistic cluster is explained in the rest of the data analysis, particularly, in the description of findings concerning intra-cluster streams. The optimistic consideration of SIBs, particularly, those in the public sector, form part of the public governance narrative that underlines

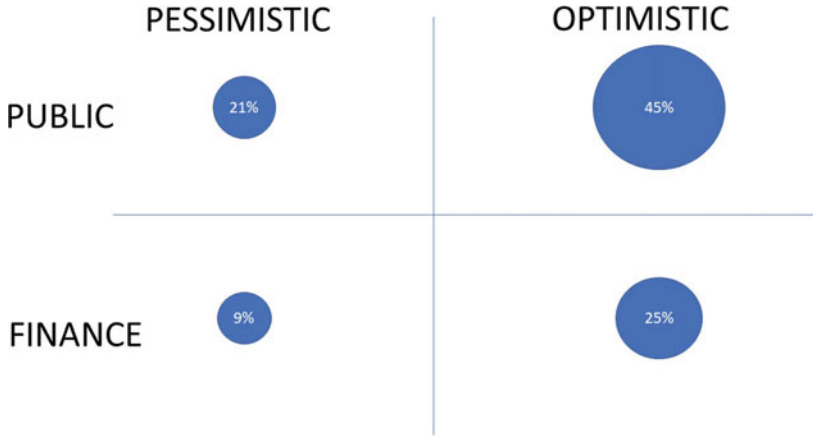


Fig. 2.2 Matrix of clusters in the research sample

the role of government as a multi stakeholder body that enables greater collaboration between actors and encourages the use of public–private partnerships (henceforth, PPPs).

Public governance combines the strengths of public administration (henceforth, PA) and new public management (henceforth, NPM), by recognising the legitimacy and interrelatedness of the policymaking, its implementation and the service delivery processes (Osborne 2009; Osborne and Gaebler 1992). In this thinking, the SIB structure can be interpreted as a powerful tool that can be used to implement public governance framework (Corvo and Pastore 2017). The use of SIBs is also supported in the collaborative approach through which public services are delivered. This is further explored in research on the Triple Helix model, as studied by Etzkowitz and Leydesdorff (1995), Leydesdorff (2015), Leydesdorff and Etzkowitz (2001) and multiple authors in the field of co-creation and co-production of public services, see Bovaird and Loeffler’s (2012) paper for more information.

SIBs, as seen through the lens of observation and theoretical assumptions, seems to be the perfect tool for tackling social problems, and generating public value and savings by incorporating different approaches from different actors who are united by shared values.

Appendix B includes our assessment of Fraser’s analysis and re-clustering of his sample according to our four categories. Where possible,

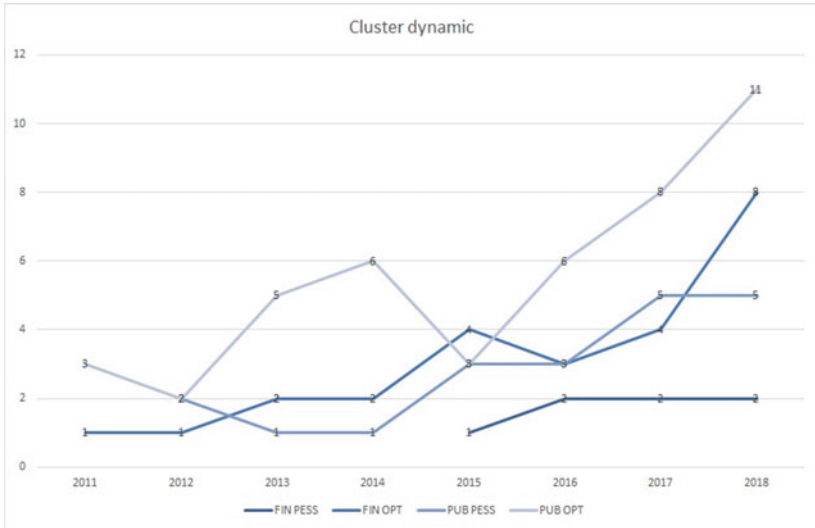


Fig. 2.3 Cluster dynamic over the timespan based on the research sample

an application of the sentiment analysis and clusterisation of Fraser’s database to his 2016 work reveals the same share of papers per cluster as ours. We have no significant changes to make to the share of papers per cluster for the pessimistic sentiment, neither for FSR nor for PSR Narratives. A comparison of Fraser’s work with ours shows that most pessimistic perspectives arise from the attitude to risk when using a SIB. Many consider SIBs to be the tools that “financialise” human life (Kish and Leroy 2015).

We found an increasing trend of paper production per cluster (see Fig. 2.3) in the optimistic perspective category over the timespan. The highest average growth rate is in the financial optimistic perspective, a growth of 40%. This is important as it shows a growing narrative on private actors’ benefits.

2.3.2 *Finding 2: Country Collaboration Map*

Using Bibliometrix, we investigated the country collaboration map, by using the co-citation analysis that provides information on the country of origin of papers. This map (Fig. 2.4) details the spread of each sentiment.

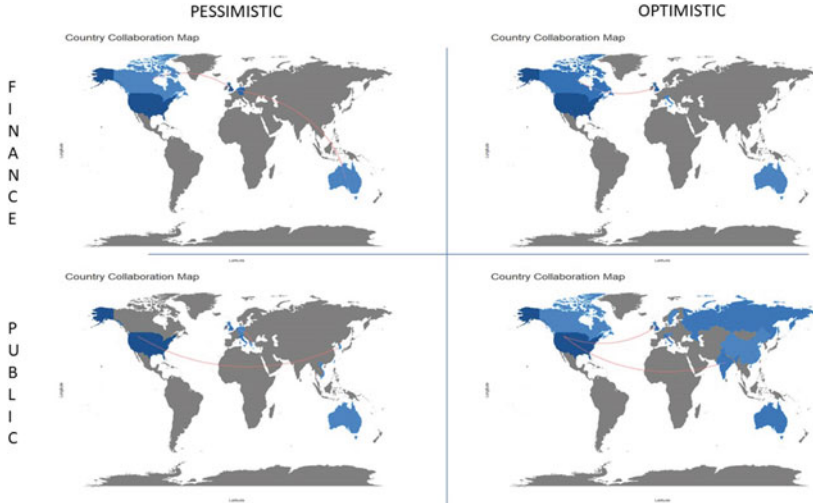


Fig. 2.4 Country collaboration map

By investigating the different clusters, we noticed that:

- Cluster 1 (Financial Pessimistic) includes documents from English-speaking countries, Germany and the Netherlands. We found collaboration between Canada and the UK, and between Australia and Germany;
- Cluster 2 (Financial Optimistic) includes documents from the USA, Australia, the UK, Italy, Greece, South Korea, Taiwan and Vietnam. We found collaboration between the USA and South Korea, and between Greece and the Netherlands;
- Cluster 3 (Public Pessimistic) includes documents from the USA, Canada, the UK, Italy and Australia. We found collaboration between Canada and the UK;
- Cluster 4 (Public Optimistic) includes documents from Austria, Australia, Sweden, Russia, China, India, the Netherlands, the USA, Canada, the UK and Italy. We found collaboration between the USA and the UK, between the USA and India, and between Italy and Austria.

While the production of academic literature does not always match the progress of SIB development in the world, most of the debate occurs in countries that have SIBs. Research into the optimistic public cluster, which is the most documented cluster, is most widespread globally. This data might suggest that due to the spread of the optimistic narrative category of research, SIBs are more likely to be adopted or developed in these countries.

Surprisingly, while there are active SIBs in both South America and Africa in the selected timespan, there are no papers written in these area in the timespan considered, according to the SIB database.² Italy, however, shows the converse. Many papers on SIBs have been written in Italy, but there no SIBs were developed there in the selected time period. In 2016, Bengo and Calderini wrote about a possible roadmap for SIBs in Italy, considering SIBs a potential tool for the public sector, and wrote “[...] *the SIB model could be a solution to welfare and public service funding in Italy*”. Before September 2019, only one feasibility study on SIBs had been conducted nationally, and that was in the city of Turin. The reasoning for this may be contextual, influenced by legal and accounting issues, and related to a general mistrust in government–government relations (Corvo and Pastore 2019).

2.3.3 *Finding 3: Authors Distribution by Cluster*

We conducted an inter-cluster analysis to assess whether some authors publish papers which align with different clusters. We found 18 repetitions. When an author is found in the same “sentiment”, either pessimistic or optimistic, we assigned them the tag “coherence”. Where authors changed sentiment, there were tagged “incoherent”. In particular, we found 12 papers written by coherent authors and 6 written by non-coherent authors.

The six non-coherent authors show two common characteristics:

- They all started from an optimistic cluster and ended in a pessimistic one;
- At first, they considered SIB to be a good tool for allocating risk. For instance, Gosling argues that it is “*vital that politicians, practitioners, academics and service users come together to develop a clear, informed rationale that can explain why PbR is the right commissioning model [in] the transforming rehabilitation agenda*” (Gosling

2016). Usually, the pessimistic sentiment is linked to the doubt that SIBs are used to finance “neo-liberal” activities rather than addressing structural conditions that have led to specific social problems (Dowling 2017) or a doubt that SIBs, and payments-by-results (henceforth, PbR) in general, can transform social problems in a financial market (Gosling 2018).

Coherent authors are all in the cluster public optimistic. Only two remained optimistic throughout their research, but they explored the impacts in both PSR and FSR.

2.3.4 Finding 4: Keywords, Clusters and Sources

Bibliometrix allowed us to conduct document mapping and to create a three fields plot of the characteristics of the documents that we wanted to examine. We created two different plots: the first one aimed to investigate the relations between author’s keywords, clusters and journals

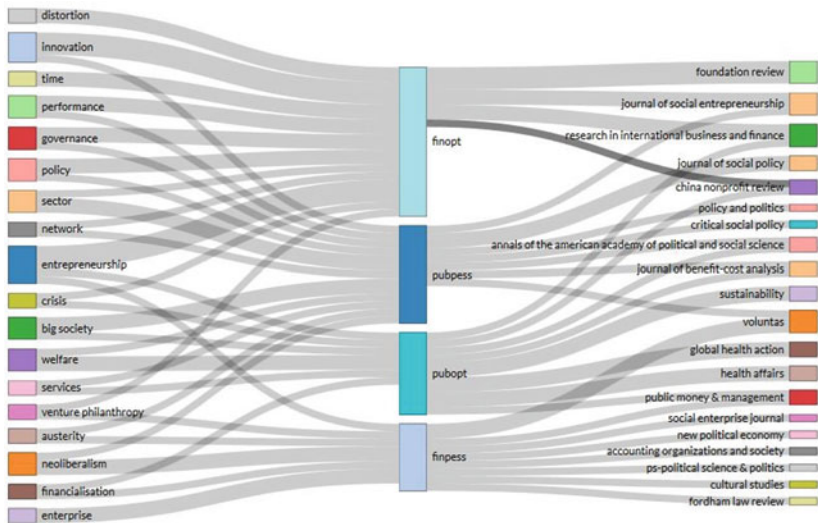


Fig. 2.5 Three fields plot of author’s keywords, clusters and journals

(Fig. 2.5); and the second connected author’s keywords, clusters and countries (Fig. 2.6).

To create this plot, we cleared the database of keywords that were considered tautological like social impact bonds and SIBs.

Closer examination of the first plot (Fig. 2.5) reveals that specific journals had a strong link to sentiments regarding SIBs. *Voluntas*, for instance, publishes papers from pessimistic narratives while *China Nonprofit Review* only includes papers with an optimistic narrative. Journals related to health issues, such as *Health Affairs* or *Global Health Action*, have an optimistic orientation.

Certain words tend to appear more frequently in particular clusters. “Crisis” is used in optimistic clusters while “austerity” and “neoliberalism” are more commonly found in pessimistic clusters. Other words are strictly connected to the topic of the narrative, “welfare” and “service”, for example, are used in the public narrative, while “venture philanthropy” or “enterprise” are used by the finance narrative.

In the second plot (Fig. 2.6), we find that many papers are written in Anglo-Saxon regions as we found earlier when analysing the countries collaboration map. These were the countries where SIBs started (UK 2010), therefore the debate is more detailed and is based on analysis from

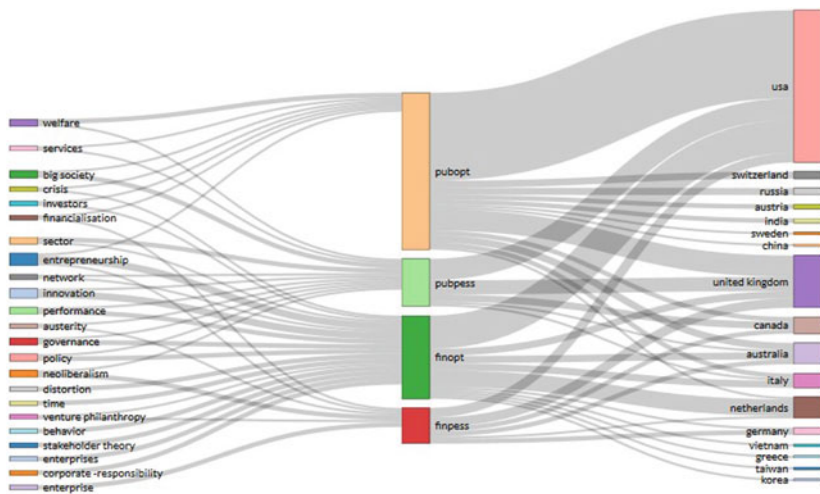


Fig. 2.6 Three fields plot of author’s keywords, clusters and countries

SIBs in practice. Quantitative data, however, is not yet available. Despite efforts, by the Oxford Government Outcome Lab (henceforth, GoLab) and others, a complete database of information on the functioning of SIBs in terms of outcome reached, savings generated, and return for the sponsor of the activity has not yet been acquired.³

Most of the countries are present in the public optimistic cluster, though Vietnam, Korea, Taiwan and Greece have only presented financial optimistic data. Both the financial and public pessimist narratives are present in countries where SIBs are already developed such as the USA, the UK, Canada, Australia, the Netherlands and Germany.

2.3.5 Finding 5: Intra Cluster Streams

In our data analysis, we decided to investigate intra-cluster dynamics and wanted to find any correlation between authors within each cluster. To run this analysis, we used the function of “Historiograph” on Bibliometrix that allowed us to identify whether an author is citing another author of the same cluster. Our findings are shown in Fig. 2.7. The only cluster that did not show any influences between authors with the same cluster was 2 (financial optimistic) which had no in-cluster citations.



Fig. 2.7 Intra cluster streams

In the Financial Pessimistic cluster, there were two streams—“empirical” that connected Glänzel and Scheuerle (2016) with Schrötgens and Boenigk (2017), and “theory” which connects Dey and Gibbon (2018) with other authors. The “empirical stream” includes papers that focus on the financial market conducting interviews or online surveys focused on Germany’s financial sector. Most of these papers were published on *Voluntas*. The “theory stream” is characterised by the presence of a literature review (Dey and Gibbon 2018) that focused on different aspects of “financialization of welfare”.

In the third cluster (Public Pessimistic) we can identify, as shown in the Fig. 2.7, two streams:

1. The first one connects Warner’s research (2013) with three different papers that further developed different themes around SIBs. The work of Giacomantonio (2017) is based on a decision tree regarding the use of SIBs and shows the “Paradox of SIBs”. The second paper shows the difficulties in reconciling accountability goals with the aim of an Environmental Impact Bond (Balboa 2016). The third paper shows the risk that outcome-based contracting in co-production can negatively affect equality, effectiveness and innovation within public services (Farr 2016). As we can see from these results, all the papers linked to Warner’s work highlights, the problems that can arise when using an outcome-based contract, like SIBs, in providing public services, and the different ways in which these problems occur.
2. The second stream, identifiable in the Public Pessimistic cluster, connects papers that focused on the UK government and corresponding challenges in the use of SIBs, considering whether the adoption of SIBs is a risk or an opportunity.

Within the Public Optimistic cluster, we found four different streams, all of which are focused on different services that can be funded with SIBs or other Outcome-Based Contracts.

The most relevant streams in our opinion are the first (Temple–Reynolds) and the third (Fitzgerald–Lantz–Sorensen). The first stream focuses on early childhood programmes that can be profitably funded by SIBs. The third stream focused on the application of SIBs in preventative health.

The remaining two streams either discussed SIBs more generally and the role that innovation has in capitalism (Shiller 2013), or they provided strategies of de-paradoxification (Maier et al. 2017). De-paradoxification is defined as the set of possible pathways that may be used by SIBs in different contexts where there are no pre-existing SIBs (Bengo and Calderini 2016).

2.4 CONCLUSION, LIMITATIONS AND IDEAS FOR FUTURE RESEARCH

In this chapter, we present our suggestions for future research and summarise our analysis. Before we do this, we detail the limitation of our study, which are as follows.

The first limitation arises from the manual setting of the cluster. There was no software support in selecting the category of cluster for each paper, this might lead to a possible misunderstanding of the sentiment of the paper, and thus allocate it to the wrong category. This limitation is in some way mitigated by the identification of intra-cluster streams at the start of our study, and our finding links between different authors in the same cluster.

The second limitation of the present study is in the number of databases investigated. Unlike Fraser et al. (2016), we only largely investigated two databases. We did this to be able to use Bibliometrix for our analysis, but we understand that this may have introduced an additional bias into the study.

A third limitation is related to the range of documents we studied. By excluding all documents that relate to grey literature, we limited the number of documents that could be analysed, though this also allowed us to focus our research to academic literature only. A possible extension of our study would be to replicate the bibliometric analysis using grey literature.

Having outlined our three key limitations, we now come to the final step of our workflow (**5. Interpretation**), summarise our analysis and conclude with three patterns that we have identified through this study.

Firstly, we notice that existing literature is more oriented towards an optimistic consideration of the SIBs, both in financial and in public-orientated studies. Governments are being motivated to find a range

of outcome-based contract schemes to provide services even without the presence of an investor. At the same time, private actors (particularly social enterprises) are encouraged to increase their financial knowledge in order to be able to co-create and develop SIBs.

The second pattern we notice is that there is growing interest in SIBs and the benefits they offer private actors. Finance is diversifying to have increasingly varied roles as their traditional functions are increasingly negatively impacted by the world financial crisis.

Thirdly, we have seen that there is still a lack of data about outcomes reached and savings generated, which could reinforce a positive view of SIBs. GoLaB is building a comprehensive SIB database, but this will take time to compile. In the meantime, there is good quality data on SIBs available for individual study.

Based on these patterns that we have found, we advise academics interested in researching social finance, accounting, public policy to follow our suggested future research agenda.

Firstly, there is a need to add to the body of literature on SIBs internationally. There are limited quantitative studies, which means that it is difficult to assess whether the optimistic or pessimistic consideration of SIBs is more justified. Both the GoLab project database and the Portuguese platform One Value (<https://onevalue.gov.pt/>) as well as other initiatives around the world are developing methods for collecting data on outcome-based schemes in order to better understand SIBs globally and with the public saving perspective.

Secondly, research into procurement and the evolution of co-production paradigms may be helpful as there are currently very few studies into either of these areas.

We anticipate that the financial optimistic perspective will be further studied, and we expect that studies on financial convenience of SIBs will be supported by increasing empirical evidence, and that this will drive the creation of new tools used to measure the results.

NOTES

1. <https://thegiin.org/impact-investing/>.

2. <https://sibdatabase.socialfinance.org.uk/>.
3. <https://golab.bsg.ox.ac.uk/knowledge-bank/project-database/>.

APPENDIX A—LIST OF PAPERS PER CLUSTER

Cluster 1—Financial Pessimistic Approach

1. Dey, C., & Gibbon, J. (2018). New development: Private finance over public good? Questioning the value of impact bonds. *Public Money & Management*, 38(5), 375–378.
2. Castellas, E. I. P., Ormiston, J., & Findlay, S. (2018). Financing social entrepreneurship: The role of impact investment in shaping social enterprise in Australia. *Social Enterprise Journal*, 14(2), 130–155.
3. Schrötgens, J., & Boenigk, S. (2017). Social impact investment behavior in the nonprofit sector: First insights from an online survey experiment. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 28(6), 2658–2682.
4. Dowling, E. (2017). In the wake of austerity: Social impact bonds and the financialisation of the welfare state in Britain. *New Political Economy*, 22(3), 294–310.
5. Kish, Z., & Leroy, J. (2015). Bonded life: technologies of racial finance from slave insurance to philanthrocapital. *Cultural Studies*, 29(5–6), 630–651.
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APPENDIX B: CLUSTER DESCRIPTION OF THE RESEARCH SAMPLE COMPARED WITH FRASER SAMPLE

<i>Cluster</i>	<i>Present work (N. of documents)</i>	<i>Share per cluster (Present Work) (%)</i>	<i>Fraser et Al. (N. of documents)</i>	<i>Share per cluster (Fraser et Al.) (%)</i>
Financial Pessimistic	7	10.14	2	7.14
Financial Optimistic	18	26.09	6	21.43
Public Pessimistic	15	21.74	5	17.86
Public Optimistic	29	42.03	15	53.57
Total	69	100	28	100

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