

**Social Entrepreneurship: A bibliometric analysis of the field (2015-2016)
using co-citation methods**

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Abstract

The field of social entrepreneurship is developing. Previous analysis of the field (Mair and Marti, 2016; Short et al., 2009; Dacin et al., 2011) gave first images of a growing field. We complement their analysis by studying the articles published in 2015 and 2016 on social entrepreneurship in peer-reviewed international academic journals. 29 articles were published. We analyze their authors, their contents and methods, their references. A co-citation analysis gives the interesting result of a field focusing on a core of central references. Contributions and perspectives for the scholars of the field are proposed.

1. Introduction. Social Entrepreneurship as a research topic

Mair and Marti (2006) consider social entrepreneurship as a promising field. Dacin et al. also recently declare: “The area of social entrepreneurship is particularly appealing because of its interdisciplinary focus as it intersects a number of boundaries drawing explicitly from anthropology, economics, political science, psychology, and sociology” (Dacin et al, 2011, p. 1203).

As social entrepreneurship still lacks a unified definition (Short et al., 2009; Chell et al., 2016), Rey-Marti et al. (2016) recently proposed a bibliometric analysis of social entrepreneurship. Yet their work does not include most recent developments. In this paper, we propose to extend their results by analyzing recent works published in 2015 and 2016 on the

topic of social entrepreneurship. To be complete, another challenge would be to perform a co-citation analysis of the field. Such a tool permits to investigate the intellectual core of the field, and helps identifying clusters of central references on which research in the field is built.

« The area of social entrepreneurship is particularly appealing because of its interdisciplinary focus as it intersects a number of boundaries drawing explicitly from anthropology, economics, political science, psychology, and sociology. » (Dacin et al, 2011, p. 1203). Recently, a large number of publications have been issued on social entrepreneurship, both in academic and in economic journals. The French economic daily *Les Echos* presents social entrepreneurship as « *une autre façon d'entreprendre* » (*Les Echos Entrepreneurs*, 14/01/2014). In academic literature, according to Austin et al. (2006), « definitions range from broad to narrow » (Austin et al., 2006, p. 2). They note the broad definition refers to innovative activity with a social objective. In this case, the venture can be either in non-profit sector or in for-profit sector. The important is the aim of the venture. Montgomery *et al.* (2012, p. 376) also introduce the concept of collective social entrepreneurship, that they define as a “collaboration amongst similar as well as diverse actors for the purpose of applying business principles to solving social problems”.

In a narrower definition, social entrepreneurship refers to applying for-profit entrepreneurship experiences and skills to non-profit organizations. Mair et Marti (2006) regard social entrepreneurship as a high potential scientific field. Yet, research on social entrepreneurship would only be really interesting if it gives new contributions and opens new perspectives to the field of general entrepreneurship (Dacin et al, 2011).

Some authors have tried to present the difference between traditional business entrepreneurial opportunities and social entrepreneurship opportunities (Dorado, 2006; Robinson, 2006). Both types of entrepreneurial opportunities do not differ dramatically, but their respective characteristics obey to different logics on following tensions: desire of independence, valuation of economic returns or valuation of social expected returns, wish of the entrepreneur to be implied and recognized by a community (Dees, 1998; Dorado, 2006; Zahra *et al.*, 2009).

In 2009, Short et al. pointed the lack of a unified definition of social entrepreneurship. This disparity can deter establishing the legitimacy of social entrepreneurship as a field (Short, Moss, & Lumpkin, 2009, p. 162). Short and al. propose a state of the art on the topic. They

note following shortcomings: the field still proposes an unclear theoretical framework, and unclear definition of the boundaries of the field, which impedes to create sound empirical research. They encourage future research with both better theoretical foundations and empirical testing of theories (Short, Moss, & Lumpkin, 2009, p. 185). Rey-Marti et al. (2016) later propose « A bibliometric analysis of social entrepreneurship », in *Journal of Business Research* (Rey-Martí, Ribeiro-Soriano, & Palacios-Marqués, 2016). However, their study is descriptive and presents journals and most active authors in the field, without analysing the contents of indexed publications. Our work is mainly based on the propositions of Short et al. (2009) and Rey-Marti et al. (2016). We continue their work by analyzing the social entrepreneurship articles issued in 2015 and 2016. We then try to draw some tracks for future research on the topic.

Social entrepreneurship was characterized by a lack of unification in the beginning of the century (Dacin, 2011). Since then, the field has grown and has matured. In 2015 and 2016 (our database), 29 social entrepreneurship papers have been published and show a more focused view of social entrepreneurship.

2. Data and methods

Social entrepreneurship has been the subject of numerous publications these 10 last years. In particular, two bibliometric works were published respectively in 2009 and in 2016. In order to gather relevant articles, we built our database on the methodological steps proposed by Short et al (2009) and Rey-Marti et al (2016). First of all, to get sufficient consistency, we only chose academic articles, written in English, and published in journals ranked in the French FNEGE ranking.

Short et al (2009) selected social entrepreneurship articles in the following general management journals: *Academy of Management Journal*, *Academy of Management Review*, *Administrative Science Quarterly*, *Journal of Management*, *Management Science*, *Organization Science*, *Strategic Management Journal*. They added entrepreneurship journals: *Entrepreneurship Theory and Practice*, *Journal of Business Venturing*, and *Strategic Entrepreneurship Journal*. Through this first selection, they only gather 8 articles. They

extent their search to EBSCO, Web of Knowledge, ABI/INFORM and Science Direct databases. They gather 152 articles, ranging from 1991 to 2008.

Rey-Marti et al (2016) focused on Web of Science (WOS), and gather articles from the following journals: *Journal of Business Venturing*, *Entrepreneurship and Regional Development*, *Entrepreneurship Theory and Practice*, *Journal of Business Ethics*, *International Small Business Journal*, *Small Business Economics*, *Research Policy*, *International Entrepreneurship and Management Journal*, *Organization Studies*, and *Organization Science*. La plus part de ces revues sont catégorisées en Innovation et Entrepreneuriat. Common journals in Short et al (2009) et Rey-Marti et al (2016) database are *Journal of Business Venturing*, *Entrepreneurship Theory and Practice*, and *Organization Science*. This shows the lack of focus of the field. Authors send their papers to various journals, devoted to various academic fields.

We started to build our database on the journals selected by Short et al (2009) and peer-reviewed journals selected by Rey-Marti et al (2016). A first direct search gives 158 articles. We checked all of them and finally exclude those in which Social entrepreneurship is not the central research object. Articles referring to either Sustainable, Societal or Environmental Entrepreneurship were excluded. This intermediate database taken from Web of Science gathers 16 articles totally devoted to Social Entrepreneurship. We then added articles from Ebsco, and also found some thanks to Google Scholar. The same selection process gave us 13 additional articles from four prominent journals: *Journal of Management Studies*, *International Journal of Entrepreneurship and Innovation Management*, *Journal of Small Business and Enterprise Development* and *Journal of Small Business Management*.

Our final database is composed of 29 articles, from 10 different journals, ranked from 4 to 1* FNEGE ranking.

3. The research front in Social Entrepreneurship (2015-2016)

We investigate the scientific production of the field of social entrepreneurship in the two last years, thanks to indicators generally used in scientometrics: journals, authors, universities, theoretical frameworks.

3.1. Where is research published?

One of the permanent question when analyzing a research field is the question of the place of publication of articles in journals. Entrepreneurship journals account for 48% of the 29 articles. But social entrepreneurship papers are not only published in entrepreneurship journals, which means that the topic is not strictly limited within the boundaries of entrepreneurship academic communities.

Journal	Field	Number of articles	%
Journal of Business Ethics	HRM	8	28%
Journal of Management Studies	GEN MAN	4	14%
The International Journal of Entrepreneurship and Innovation	ENT/INNOV	4	14%
Journal of Small Business Management	ENT/INNOV	3	10%
Journal of Business Venturing	ENT/INNOV	2	7%
International Entrepreneurship and Management Journal	ENT/INNOV	2	7%
Journal of Small Business and Enterprise Development	ENT/INNOV	2	7%
Organization Studies	ORG STUD	2	7%
International Small Business Journal	ENT/INNOV	1	3%
Strategic Management Journal	STRAT	1	3%
TOTAL		29	100%

The most contributive journal in 2015-2016 is the *Journal of Business Ethics*, with 28% of the total production. A special issue on “Social Entrepreneurship and business ethics”, edited by Elizabeth Chell, Laura J. Spence, Francesco Perrini and Jared D. Harris, was published in 2016. The special issue gathers 7 articles (*Journal of Business Ethics* vol. 133, 4). The special editors note that the “relation between social entrepreneurship an ethics needs to be problematized” and also propose a broad “range of conceptual lenses and methodological approaches” (p. 619). The *Journal of Management Studies*, *Organization Studies* and the *Strategic Management Journal* also published social entrepreneurship papers recently.

3.2. Most productive authors and universities

The database indicates the participation of different 68 authors (with a total of 78 contributions) to the production of 29 articles, for an average of 2.7 authors per article. Most articles (93%) are colaborations between at least two authors. Or the 68 different authors, Back and Kickul are the most productive, with 3 contributions each. Several other authors (Dey, Gundry, Hechavarria, Hoogendoorn, Kistruck, Walske) also have contributed significantly to the continuation of the field with 2 articles in the recent years.

Authors	University	Number of articles
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Sophie BACQ	Entrepreneurship & Innovation Group, D'Amore-McKim School of Business, Northeastern University, Boston, MA, USA	3
Jill R. KICKUL	NYU Stern Program in Social Entrepreneurship, Berkley Center for Entrepreneurship & Innovation, NYU Stern School of Business, New York, USA	3
Pascal DEY	Institute for Business Ethics, University of St. Gallen, Switzerland	2
Lisa K. GUNDRY	Center for Creativity and Innovation, DePaul University, Chicago, IL, USA	2
Diana M. HECHAVARRIA	Muma College of Business, University of South Florida, Tampa, USA	2
Brigitte HOOGENDOORN	Department of Applied Economics, Erasmus School of Economics, Erasmus University Rotterdam, The Netherlands	2
Geoffrey M. KISTRUCK	Schulich School of Business, York University, Toronto, Canada	2
Jennifer M. WALSKE	Haas School of Business, UC Berkeley, CA, USA & School of Management, University of San Francisco, CA, USA	2

Nearly one half of the contributors work in Northern American universities (USA and Canada, 46.2%). Europe universities count for 42.3%. Whereas scholars from Oceania and Asia published papers in 2015-2016, we count no publication from African or Southern American universities.

Country	Number of contributions	% of the contributions	Main contributing universities
USA	31	39.7	Northeastern University, NYU
UK	9	11.5	Aston University
Belgium	5	6.4	Ghent University
Canada	5	6.4	York University
Spain	5	6.4	University of Valencia
The Netherlands	5	6.4	Erasmus University Rotterdam
Australia	4	5.1	Macquarie University
Switzerland	3	3.8	University of St. Gallen
Austria	2	2.6	WU Vienna University of Economics and Business
France	2	2.6	ESSEC
Italy	2	2.6	
New Zealand	2	2.6	University of Waikato
China	1	1.3	
India	1	1.3	
Thailand	1	1.3	

Most represented universities are D'Amore-McKim School of Business (USA), Ghent University (Belgium), New York University (Belgium), and University of St. Gallen (Switzerland). In these universities, one or more authors contributed for at least 3 articles among the 29 articles of the database.

Sophie Bacq is affiliated to D'Amore-McKim School of Business, Northeastern University, Boston (USA). She has published numerous papers on entrepreneurship, and more precisely on social entrepreneurship since 2007. A large part of her works were cosigned by Franck Janssen (Université catholique de Louvain, Belgium). Bacq's works in our 2015-2016 database are dealing with (1) the nature and motivation of social entrepreneurs (with scholars from the Netherlands), (2) social entrepreneurship and bricolage (with co-authors from US universities) and (3) the search for a blended value in social entrepreneurship (with a Belgian co-author and an American co-author). She is particularly active, both in USA and in Europe. Jill Kickul (New York University, USA) also published 3 papers on the period. She co-authored the "bricolage" and « blended value » article with Sophie Bacq. She co-authored her third article on innovation and social entrepreneurship with American colleagues. Kickul and Bacq both work on the East Coast, they work together and with European colleagues. Gundry and Hoogendoorn also collaborate with them.

A large majority of articles are collaborative. Only two articles were written without co-authorship: the cultural approach of social entrepreneurship proposed by Hechavarria (2015), and the study by Hoogendoorn (2016) of the prevalence of determinants of social entrepreneurship at the macro level. 93% of the production is the product of collaborations.

Number of authors per article	Number of articles	% Total articles
1	2	7%
2	10	35%
3	12	41%
4	5	17%

On 27 co-authored articles, 12 were written (44%) by authors from different geographic zones, 8 by only-American teams, 6 by only-European teams, and 1 by an only-Oceanian team. This high level of inter-continental collaboration is a sign of the internationalization of the field, even if social entrepreneurship sometimes tries to answer to very local problems, as social entrepreneurship is often regarded as a means to satisfy needs that the State does not meet.

The following table details the origin of authors in collaborations.

Geographic zone	Number of articles
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INTER-ZONES	12
AMERICA	8
EUROPE	6
OCEANIA	1
TOTAL	27

4. Contents of the papers published in 2015-2016

The contents of the 29 articles are characterized by keywords, theoretical frameworks and methods.

4.1. Keywords in Social Entrepreneurship papers (2015-2016)

Keyword analysis gives interesting information on the contents of the articles. Out of 29 articles, 26 proposed the keyword “social entrepreneurship”. The three without this keyword had the term in the title of the article. In order to facilitate the analysis of keywords, we gathered them in groups (table). Out of 152 keywords, we managed to categorize 99 of them (i.e. 65%). This high figure reveals a relatively unified field. However, 53 keywords were non categorized, which means a relative diversity of the themes related to social entrepreneurship.

Entrepreneurship / entrepreneur / enterprise. We first group keywords relating to entrepreneurship: commercial entrepreneurship, entrepreneurship, entrepreneurial action. We also group keywords relating to the entrepreneur: individual characteristics, emotions, moral portrait, creativity, vision, social entrepreneur. Then we group keywords related to ‘enterprise’: for profit social enterprises, social enterprise, sustainable enterprise.

Theories. We also identified keywords referring to theories: institutional entrepreneurship, institutional support theory, institutional theory, institution, practice theory, social network theory, attention-based view theory, distributed agency, effectuation, human capital theory. The fact that theoretical frameworks are chosen as keywords derives from the call from Mair and Marti (2006) and Dacin and Dacin (2011) for the lack of theories in social entrepreneurship. In 8 papers, theories are indicated in the keyword section.

Empirical data. Some authors give keywords relating to the data. « Global Entrepreneurship Monitor » is used four times. Often, the country of study is cited (China, New Zealand, USA).

Ethics. We created a specific grouping on ‘Ethics’: ethics, business ethics, ethical decision making, ethics of care, virtue ethics.

Social. We did the same with the term social, when it was not connected to the previous groupings, i.e. social entrepreneurship, theory, entrepreneurship, entrepreneur et enterprise. We identified 10 keywords related to social: social change, social cognition, social impact, social movement, social projects, social start-ups, social value, social goals, social innovation, corporate social responsibility.

Finally, five isolated keywords were identified: scaling (5), sustainability (4), blended value (3) and innovation (3).

Keywords and Generic keywords	Number of occurrences
Social Entrepreneurship	26
Theory*	11
Social*	10
Entrepreneurship*	9
Entrepreneur*	9
Ethics*	7
Scaling	5
Enterprise*	4
Global Entrepreneurship Monitor	4
Country*	4
Sustainability	4
Innovation	3
Blended value	3

*grouping in ‘generic keywords’ of keywords given by the authors

4.2.Theoretical frameworks used in Social Entrepreneurship papers (2015-2016)

Mobilized theories are various (table), and most articles refer to several theoretical frameworks (e.g. Zahra et al., 2015 refers to Institutional, stakeholder and organizational

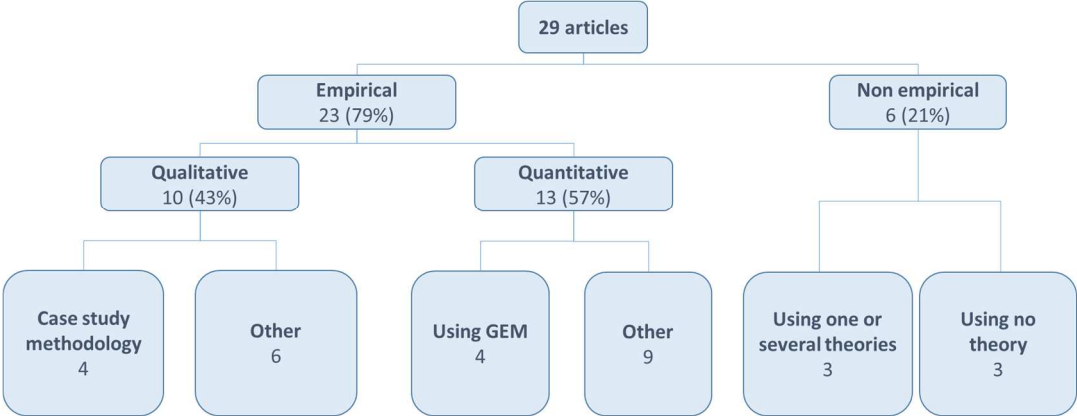
learning theoretical frameworks). Institutional theories dominate the field, although the following table shows that the specific object of “social entrepreneurship” can be studied with various theoretical lenses (human capital, effectuation, etc.), with different levels of analysis (the society, the organization, the individual). On 29 articles, 17 refer specifically to at least one theory. This is a growing and encouraging tendency, as Mair and Marti (2016), following Short et al. (2009), identified this lack of theorizing in the social entrepreneurship literature.

Levels of application	Theoretical frameworks	Most representative articles
Society	Institutional theory	Zhao et al. 2016 Estrin et al. 2016 Qureshi et al. 2016 Calic et al. 2016 Zahra et al. 2015 Pathak et al. 2016
	New institutional theory	Hechavarría 2015
	Social contract theory	Chell et al. 2016
	Stakeholder theory	Zahra et al. 2015
Organization	Organisational theory	Andre et al. 2016
	Agency theory	Bacq et al. 2016
	Governance theory	Bacq et al. 2016
	Organizational learning theory	Zahra et al. 2015
	Attention Based view theory	Stevens et al. 2015
Individual	Post-modern ethic theory	Dey et al. 2016
	Post-structuralist theory and Affect based theory	Dey et al. 2016
	Socio cognitive perspective	Waldron et al. 2016
	Effectuation theory	Akemu et al. 2016
	Theory of virtue ethics	Wang et al. 2015
	Human capital theory	Scarlat et al. 2015
	Theory of planned behaviour	Yang et al. 2015

4.3.Methodologies used in Social Entrepreneurship papers (2015-2016)

Short et al. (2009) reveal that «conceptual articles outnumbered empirical studies, and empirical efforts often lack formal hypotheses and rigorous methods». Dacin and Dacin (2011) agree with this finding. They add that most methods were qualitative. According to them, the field will become more robust with the use of quantitative methods. Griffiths, Gundry, and Kickul (2013) also regret that most quantitative studies in social

entrepreneurship use the Global Entrepreneurship Monitor (GEM) database. We tried to assess whether these tendencies still exist. Some information is given in the following Figure.



Twenty-three articles (79% of the articles of the database) are empirical, which is positive compared to Short et al (2009), and Dacin and Dacin (2011) statements. A short majority of them (57%) present a quantitative study. Among them, only 4 use the GEM database, which is also a better tendency than before. On the other side, only one half of the qualitative articles refer to a theoretical framework, a ratio that needs to be increased.

Ten articles use qualitative methods: 4 case studies (one longitudinal case study), 1 re-use of qualitative data, and 5 others. Data collection is based on semi-structured interviews (5 cases), interviews and direct or participant observation (3), archival data (1), re-use of former data. Sample size varies from 1 et 62. Thirteen articles are quantitative: 9 databases (among them 5 using GEM), 4 on-line surveys. Sample size varies from 43 to 181 792.

A wide range of national contexts are studied : 7 studies are worldwide, and the others study specific diversified contexts, as Europe, the United States, but also India, China, or New Zealand.

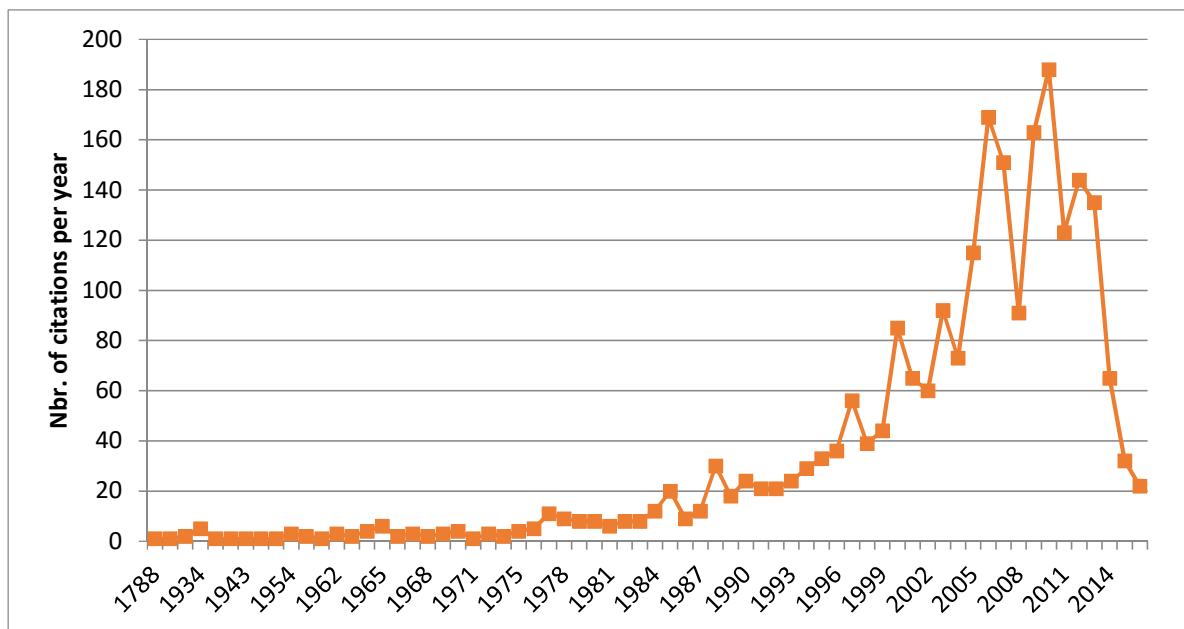
We can conclude that the latter publications on social entrepreneurship are built on better methodological tools and a larger variety of data. Yet, the deficiency in theoretical structuring still exists.

5. Citation analysis

The analysis of the most cited references helps extend our understanding of the recent construction of the field. Of the 29 articles in the database, 29 included a bibliography. We

identified 2,326 references cited, for a total of 1.861 different articles, and an average of 80.2 references per article. The article that offers the most citations is the one by Zhao & Lounsbury (2016) who propose an institutional logics approach to social entrepreneurship, and whose literature review gathers 157 references.

According to the chronological distribution of cited references (see Figure), even some relatively ancient references continue to have a strong citation presence, including Schumpeter (1934), and Stinchcombe (1965). The general shape of the figure is relatively usual, and does not differ from the habitual figure identified in management fields (Servantie et al., 2016). Naturally, the number of citations to very recent publications is lower, because they have not had sufficient time to spread throughout the field.



Like in any scientific field, the large majority of references are only cited once (69.9%) or twice (12.9%). Only 24 articles (out of 1861 different references) are cited at least 5 times. Three papers are present in more than 50% of the published papers on the period 2015-2016.

- Mair & Marti (2006) work on Social entrepreneurship research published in the *Journal of World Business* is cited in 17 out of 29 papers, mainly for their conceptual definition and the absence of a clear-cut delimitation between social and commercial entrepreneurship.

- Zahra, Gedejlovic, Neubam and Shulman (2009) proposed in a *JBV* paper a typology of social entrepreneurs. This article is also cited 17 times. They present social motives of such entrepreneurs and the ethical challenges they have to face. Most of the citations of their work in our database refer to these ethical challenges and to the notion of ‘dark side of social entrepreneurship’.
- Austin, Stevenson and Wei-Skillern (2006) ask the question of the similarity versus difference between social and commercial entrepreneurship. Their *ETP* paper is cited 15 times, mainly in empirical studies on social entrepreneurship.

On 29 articles, 17 of them (59%) cite Mair and Marti (2006) and/or Zahra *et al.* (2009) to define the social entrepreneur ou social entrepreneurship. Austin et al. (2006) are cited in 15 recent articles, and present a 60% cocitation rate with Mair and Marti (2006).

Austin et al. (2006) and Mair and Marti (2006) definitions for social entrepreneurship are complementary. Austin et al. (2006) insist on the inter- and pluri-industry feature of social entrepreneurs; they present social entrepreneurship as « innovative, social value creating activity that can occur within or across the nonprofit, business, or government sectors » (Austin et al., 2006, p. 2). For them, “social entrepreneurship is not defined by legal form, as it can be pursued through various vehicles” (Austin et al., 2006, p. 2). Mair and Marti rather insist on social entrepreneurship as a process with a specific aim, i.e. “to catalyze social chang and/or address social needs” (Mair et Marti, 2006, p. 37). Although social value is central in any definition, it remains fuzzy and difficult to assess. Thus, the social entrepreneur can also be regarded as a vector for social innovation (Richez-Battesti, 2012, p. 15).

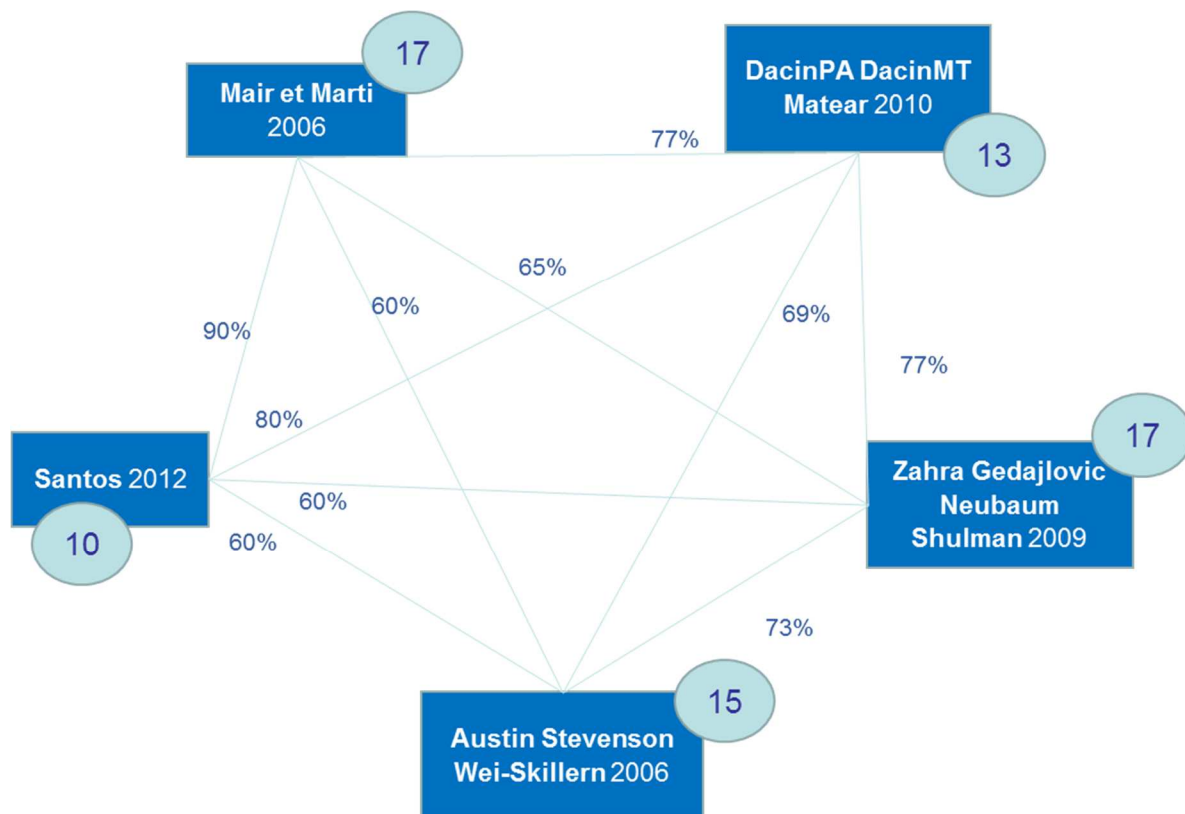
Article	Nb citations (>5)	% of total 2326 references	% of the published articles
Mair Marti 2006	17	0,73%	58,6%
Zahra Gedajlovic Neubaum Shulman 2009	17	0,73%	58,6%
Austin Stevenson Wei-Skillern 2006	15	0,64%	51,7%
DacinPA DacinMT Matear 2010	13	0,56%	44,8%
Santos 2012	10	0,43%	34,5%
Mair Marti 2009	9	0,39%	31,0%
Short Moss Lumpkin 2009	9	0,39%	31,0%
Dees 1998MSE	8	0,34%	27,6%
DacinMT DacinPA Tracey 2011	8	0,34%	27,6%
Alvord Brown Letts 2004	8	0,34%	27,6%
Miller Grimes McMullen Vogus 2012	7	0,30%	24,1%
Harris Sapienza Bowie 2009	6	0,26%	20,7%
Martin Osberg 2007	6	0,26%	20,7%
Shane Venkataraman 2000	6	0,26%	20,7%
Peredo McLean 2006	6	0,26%	20,7%
Bornstein 2007	5	0,21%	17,2%
Chell 2007	5	0,21%	17,2%
Dees 1998ENP	5	0,21%	17,2%
Di Domenico Haugh Tracey 2010	5	0,21%	17,2%
Lepoutre Justo Terjesen Bosma 2013	5	0,21%	17,2%
Renko 2013	5	0,21%	17,2%
Schumpeter 1934	5	0,21%	17,2%
Shaw Carter 2007	5	0,21%	17,2%
Tracey Phillips 2007	5	0,21%	17,2%
16 references	4 occurrences	2,75%	
51 references	3 occurrences	6,58%	
150 references	2 occurrences	12,90%	
1619 references	1 occurrences	69,60%	

6. Co-citation analysis

A further step to understand the structuration of the recent development of the field of social entrepreneurship is to analyze co-citations of references. For each reference cited more than 5 times, we indicate the number of citations in the database. The number attached to the link between two references indicates the number of co-citations (i.e. papers that cite the references together). Existing links between references contribute to defining the network.

We selected the 15 more cited references and calculated the co-citation scores for every couple of references (see Appendix). The co-citation matrix reveals the relatively unified structure of the field, when taking into account the most cited references. Indeed, on 105 scores, only 12 are lower than 20%, and 46 are above 60% (see Appendix).

We chose to focus on 5 most cited references (Mair Marti, 2006; Zahra et al., 2009; Austin et al., 2006; Dacin et al., 2010; Santos, 2012) to draw a cluster of references (figure). The cluster appears as a star, with scores over 60%.



The high co-citation scores come from the complementarity of the 5 articles. We develop here the peculiarity of each of them, in order to understand why in the recent years, scholars publishing on social entrepreneurship often use these references conjointly in their

production. We present them in chronological order, from Mair and Marti 2006 to Santos 2012.

Mair and Marti published in 2006 in *Journal of World Business* the article entitled “Social entrepreneurship research: a source of explanation, prediction and delight”. In this article, the authors propose a definition of social entrepreneurship and are the first authors to try to draw research perspectives for the topic. They articulate their definition on three points. First, they view “social entrepreneurship as a process of creating value by combining resources in new ways. Second, these resource combinations are intended primarily to explore and exploit opportunities to create social value by stimulating social change or meeting social needs. And third, when viewed as a process, social entrepreneurship involves the offering of services and products but can also refer to the creation of new organizations” (Mair et Marti, 2006, p. 37). As they are cited 17 times on the 29 articles published in 2015-2016, and 2116 times on Google Scholar (May, 4, 2017), it seems that their objective to consolidate the legitimacy of social entrepreneurship as a research object is achieved.

Austin, Stevenson and Wei-Skillern, in “Social and commercial entrepreneurship: same, different, or both?”, published in *Entrepreneurship Theory and Practice* in 2006, compare social and commercial entrepreneurship, and propose a framework, called SVP (Social Value Proposition). This analytic tool is based on a larger framework PCDO (People, Context, Deal, Opportunity) proposed by Sahlman (1996), in order to study the process of social entrepreneurship in a systematic and efficient way (Austin et al., 2006). The framework integrate opportunities, people, and capital, in a context. Cited 15 times in the database, and 2262 times in Google Scholar (May, 4, 2017), we can also put that their objective to stimulate research on social entrepreneurship in order to create “much intellectual and social value” (Austin et al., 2006, p. 19) is now reached.

“A typology of social entrepreneurs: Motives, search processes and ethical challenges” co-authored by Zahra, Gedajlovic, Neubaum and Shulman is published in 2009, in the *Journal of Business Venturing*. They refer to the definitions proposed by Mair and Marti (2006), and Austin et al. (2006), in order to build their own definition. They clarify different types of motivation, different types of structures, and different strategies put forward to improve social wealth. They identify three types of social entrepreneurs : Social Bricoleurs, theoretically inspired by Hayek ; Social Constructionist, theoretically based on Kirzner, and Social Engineers, inspired by Schumpeter. This article was cited 17 times in 2015-2016 social entrepreneurship papers, and 1104 times on Google Scholar (May, 4, 2017).

Dacin, Dacin and Matear published in 2010 in *Academy of Management Perspectives* “Social Entrepreneurship: Why we don’t need a new theory and how we move forward from here”. Although the authors refer to the three preceding articles, they stand out from them by concluding that social entrepreneurship is not a different form of entrepreneurship, but only a different context where a certain type of entrepreneurs operate. As Short et al. (2009), they point out the lack of empirical studies, that weakens the theoretical structuring of the object. They invite considering social entrepreneurship as “a unique context that provides opportunities for social entrepreneurship researchers as well as researchers in existing disciplines — such as those associated with other forms of entrepreneurship — to investigate how existing theories apply to social mission-related phenomena” (Dacin et al., 2010, p. 43). They call researchers on social entrepreneurship to open themselves to general entrepreneurship and other disciplines.

Last but not least, “A Positive Theory of Social Entrepreneurship”, authored by Santos and published in 2012 in the *Journal of Business Ethics* is cited 10 times in the database, and 575 fois in Google Scholar (May, 4, 2017). Santos conflicts with the four preceding articles. In particular, he criticizes Dacin and Dacin definition. For them, “the primary mission of the social entrepreneur being one of creating social value by providing solutions to social problem” (Dacin et Dacin, 2011, p. 1204). According to Santos, “a rigorous definition of social entrepreneurship should avoid using the word ‘social’” (Santos, 2012, p. 336). He proposes a positive theory of social entrepreneurship, where social entrepreneurs are social actors playing a role that nobody else plays in society. These actors “aim to achieve a sustainable solution to the problems they address, as opposed to achieving a sustainable advantage for their organization”, and adopt a logic of empowerment rather a logic of control. (Santos, 2012, p. 345).

Thus, even if the field seems unified, when considering the high co-citation indexes, the ambitions of most cited authors for developing the field are different, and even more opposing, and have changed over time. The difficulty to agree on a common definition has had two effects. First, some only stay with very general definitions, in order not to enter unconvincing debates on what is and what is not social entrepreneurship (Dacin et al, 2011). This is what Hoogendoorn does, inspired by Mair and Marti (2006) and Zahra (2009), when she defines social entrepreneurs as “individuals or organizations engaged in entrepreneurial activities with a social goal” (Hoogendoorn, 2016, p. 280). The second effect is the opening of

the field to other disciplines or to general entrepreneurship. This movement could lead to a weakening of the dialog between scholars.

But the focused structure of cocitations reveals above all the relative youth of the field. Further developments of the field would probably create an evolving structure, with a double paradoxical movement: (1) a centrifugal creation of more visible streams of research on specific objects and based on diverging theoretical frameworks, combined with (2) a focused centripetal stabilization of legitimized common knowledge, what could be called the “social entrepreneurship paradigm”.

7. Conclusion

“On the one hand, there is a growing movement to reify the topic into a legitimate domain of academic inquiry, and a number of scholars are doing work in this area. Much of the enthusiasm expressed for this topic stems from the novel and intriguing empirical context offered by social entrepreneurship, a context that combines for profit and non-profit organizational activity” (Dacin et al, 2011, p. 1203). In order to better assess, but also accompany this growing trend, we proposed in this paper to use bibliometric methods (Callon et al., 1986; McCain, 1990; Nerur et al., 2008), to analyze the recent structure of the field and prepare the field to a future comparison to previous results (Short et al., 2009; Rey-Marti et al., 2016).

In management and entrepreneurship, such works are regularly proposed, and help clarifying topics and research fields (e.g. Nosella et al., 2012 on organizational ambidexterity, Lane et al., 2006 about absorption capacity; Vogel, 2012 on organization; Grégoire et al., 2006, on entrepreneurship; Zhenzhong et al., 2012, on ethnic entrepreneurship; Servantie et al., 2016, on international entrepreneurship). We tried here to complement Short et al, and Rey-Marti et al works on social entrepreneurship, thanks to the analysis of the most recent articles (2015-2016), and give a thick description of the field, that can help scholars to find their road when studying “social entrepreneurship” or “social entrepreneurship objects”.

The analysis of the authors by geographic zones and the analysis of co-authorship show encouraging results on the high level of international collaboration in the field. We also reveal a large proportion of empirical articles, most of them based on quantitative methods, a proof of the switching of the field to more documented and tested arguments. The question of the

definition of social entrepreneurship seems to be no longer a problem. Indeed, thanks to our cocitation analysis, we identified 5 seminal references irrigating the field with a very high cocitation score. This core of references provides with a relatively broad and robust framework for future research. To balance this judgment, the analysis of keywords and theoretical frameworks reveals a certain diversity in the field, that could be the sign of an emerging maturation.

Six years after the statement by Dacin et al. (2011), our analysis shows, that after a search for consolidation in the 2000 and 2010 years, the field of social entrepreneurship is starting to explore new concepts (internal diversification) and could soon start giving concepts out of the field to other disciplines (external expansion).

In this paper, we have one main limitation. We use relational methods tracking the structure of the field through networks of authors or co-citation analysis. This perspective helps identify clusters of references to better understand the structuration of the field. Yet, we only use short-term and quantitative features. One perspective is to combine former bibliometric studies to this one to get a global long-term picture of research on social entrepreneurship, from the very beginning of research on the topic to the newest developments, like Servantie et al (2016) did for international entrepreneurship. Another perspective would be to integrate qualitative indicators to better assess the influence of the publications outside the field of social entrepreneurship, in order to understand how concepts, results and theories born within the field could irrigate other fields.

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Appendix

	Nb art	Mair Marti 2006	Zahra Gedaj	Austin Stev	DacinPA Da	Santos 2012	Mair Marti 2	Short Moss	Dees 1998M	DacinMT Da	Alvord Brow	Miller Grim	Harris Sapie	Martin Osbe	Shane Ve	Peredo I
Mair Marti 2006	17															
Zahra Gedajlovic Neubaum Shulman 2009	17	0.65														
Austin Stevenson Wei-Skillern 2006	15	0.60	0.73													
DacinPA DacinMT Matear 2010	13	0.77	0.77	0.69												
Santos 2012	10	0.90	0.60	0.60	0.80											
Mair Marti 2009	9	0.78	0.44	0.67	0.78	0.78										
Short Moss Lumpkin 2009	9	0.78	0.67	0.67	0.67	0.56	0.33									
Dees 1998MSE	8	0.88	0.88	0.88	0.75	0.50	0.50	0.38								
DacinMT DacinPA Tracey 2011	8	0.50	0.75	0.63	0.50	0.38	0.25	0.25	0.38							
Alvord Brown Letts 2004	8	0.63	0.63	0.63	0.38	0.50	0.63	0.38	0.38	0.13						
Miller Grimes McMullen Vogus 2012	7	0.71	0.86	0.86	0.71	0.71	0.43	0.43	0.57	0.43	0.14					
Harris Sapienza Bowie 2009	6	0.33	1.00	0.50	0.50	0.50	0.33	0.17	0.50	0.50	0.50	0.33				
Martin Osberg 2007	6	0.50	0.83	0.67	0.50	0.17	0.33	0.17	0.67	0.50	0.33	0.50	0.17			
Shane Venkataraman 2000	6	0.83	0.83	0.83	0.67	0.17	-	0.50	0.33	0.50	0.17	0.33	0.17	0.33		
Peredo McLean 2006	6	0.83	0.83	0.67	0.17	0.33	0.17	0.33	0.50	-	0.67	0.33	0.33	0.67	0.33	

Table 1 Co-citations