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Exploring the scalability process of social innovation

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Abstract

Purpose – Social innovation is a recent theme, and the practices related to this area are characterized by punctual actions and projects restricted by time and space that make it difficult to develop strategies that can be sustained in this field. Therefore, one point that deserves to be highlighted in studies on social innovation is a matter of scalability. This paper aims to deal with a bibliometry whose objective was to map the existing studies about scalability of social innovation carried out in the Capes and EBSCOHost portals.

Design/methodology/approach – This paper deals with a bibliometry. The topic researched in this bibliometry is scalability of social innovation. The databases chosen for this research were Portal Periódico Capes and EBSCOHost because they are the leading providers of search databases.

Findings – A total of 42 papers were considered, distributed between 2002 and 2017. The analysis criteria for the study were origin (composed by year, author, country of origin, periodical and impact factor), focus of the investigations, justification, method and main techniques of research, contributions and theoretical advances and challenges and paths.

Originality/value – Among the main results found, one of them is that scalability is a topic that began to be researched recently, so that the USA and Brazil lead the research. Most of the studies focused on the scalability process and justified the importance of studies on the subject as a way to explore the potential of expanding the social impacts of a social innovation. Several studies have emphasized the role of networks as being quite positive for the scalability process and have been concerned with identifying factors that contribute to the scalability process. The challenge that most stood out among the papers was the financial sustainability of a social innovation. At the end, a research agenda was proposed.

Keywords Social innovation, Scalability, Bibliometry

Paper type Conceptual paper

1. Introduction

Social innovation emerges as a response to growing social, environmental and demographic challenges, often considered insoluble because of the failure of conventional solutions and paradigms that permeate institutional settings in some sectors of society (Nicholls & Murdock, 2012). Despite the diversity of concepts and

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applications in different fields, this article adopts the concept of social innovation developed by the Crises group (Canada):

> Social innovation is broadly defined as the emergence of new social, organizational and institutional arrangements or new products and services designed to address aspirations, to meet needs, or to bring about a solution to a social challenge. Social innovation aims to change social relations and may lead to social transformation (Bitencourt *et al.*, 2016, p.14).

Increasingly, social innovation (SI) has attracted the attention of researchers and social entrepreneurs due to their potential for social transformation aimed at solving social problems. However, in Brazil, SI practices are still punctual and have limitations on sustainability (Braga, Proença, & Ferreira, 2014; Pandey, Menezes, & Ganeti, 2017; Takahashi & Segatto, 2016; Werner, 2009). It is important to point out that a social innovation can be observed from any social project, business or even unpretentious but deliberate initiatives aimed at improving living conditions that end up gaining momentum and transforming social reality.

Considering the importance of social innovation, it is evident the need to think of scalability strategies that can give greater scope, expansion or depth to SI projects. Scalability of a SI occurs when a Project reaches the planned performance level; i.e. it is implemented on a larger scale (Webb, Kistruck, Ireland, & Ketchen, 2010). The goal of undertaking the scalability process is to broaden the reach of SI with a view to enhacing its social impact (Webb *et al.*, 2010). It is worth noting that not all social innovations have potential for expansion, some are local, others may not aim this expansion.

This work consists of a bibliometry, whose objective is to map the studies made on scalability of social innovations carried out until November 2017 in the Capes and EBSCOHost Portal Periódico databases. Through this mapping, we intend to explore publications about the referred process with the intention of knowing the subject, what is being studied about it, and to propose a research agenda capable of contributing effectively to a more oriented and deep discussion. Under these conditions, 42 scientific publications were analyzed, which showed that scalability is a topic that began to be researched only recently in 2002. Due to this fact, there is little research and there are no authors or research groups that are specifically dedicated to scalability, since few names were repeated as author and coauthor. Thus, scalability was an approach in which authors and coauthors acted when their main theme required.

As contributions, this paper compiled the main findings, reflecting and constructing representations on social innovation scalability, and unveiled the eminent needs of studies for the topic. In addition to the introduction, this article presents, initially, the concepts and types of scalability; then describes the methodology adopted; in the sequence, it exposes the characteristics of the literature review followed by a brief discussion; and finally presents the final considerations and proposes a research agenda on scalability of social innovation.

2. Theoretical reference

2.1 Concept and types of scalability

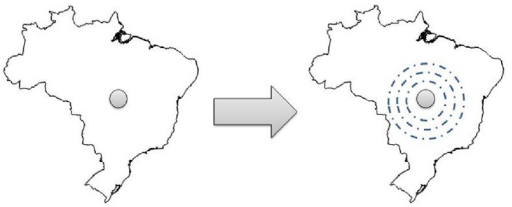
Scalability of a social innovation occurs when a project reaches the planned level of performance and can be implemented on a larger scale with a view to enhancing social impact (Webb *et al.*, 2010). When a social innovation expands, one can observe changes in the network elements, knowledge, experience and credibility. However, it is worth emphasizing that not all social innovations have potential for expansion; some are punctual and have no pretension to expand (Silva, Takahashi, & Segatto, 2016).

The process of scalability of a social innovation can occur in different ways. When it occurs in a pure way we have: scaling up, scaling out and scaling deep. For Moore *et al.* (2015), the scalability process is not always done in a pure way; that is, it does not occur just up, or out, or deep. The scalability process takes place in a hybrid way: scaling up and out; scaling up and deep; scaling up, out and deep. Next, we introduce the concepts of scaling up, scaling out and scaling deep.

2.1.1 Scaling up (comprehensiveness). It refers to the expansion of a social innovation with a view to enhancing its social impact (Silva *et al.*, 2016). Increasing social impact means seeing more people (Silva *et al.*, 2016). Thus, scaling up can broaden your reach by creating complementary services/products, for example, to serve more people. According to Bloom and Skloot (2010) and Riddel and Moore (2015), scaling up tends to imply changes in legislation and the creation of public policies. Figure 1 represents the occurrence of scaling up.

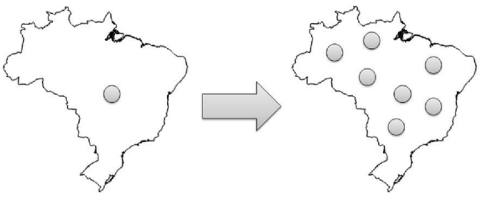
Westley, Antadze, Riddell, Robinson, and Geobey (2014) cite as an example of scaling up an Engagement Community in Waterloo that aims to reduce poverty. To achieve this goal, learning communities were formed, where people living in the region developed skills to move the local economy. As planned, by 2010 they were expecting to lift 5,000 people out of poverty; however, the number of people whose living conditions improved exceeded 147,000. For Westley *et al.* (2014) the process of scaling up was enhanced by networking and partnerships, leadership performance, and commitment to community changes. This process of scaling up included the establishment of strategic relations and the affect the elaboration of public policies addressed to the solution of specific social problems.

2.1.2 Scaling out (expansion). It occurs when a social innovation, with the aim of increasing its impact, is replicated in different geographic areas. It is about disseminating principles and adapting social innovation to different environments (and consequently, different contexts) through knowledge cogeneration (Riddel & Moore, 2015). Figure 2 represents the scaling out.



Source: Prepared by the authors

Figure 1. Representation of scaling up



Source: Prepared by the authors

Figure 2. Representation of scaling out

Heuts and Versele (2016) understand that one of the ways to increase the reach of a social innovation is linked to the idea of conquering new markets (or regions). The research of Heuts and Versele (2016) describes the social innovation RenoseeC as an example of scaling out. RenoseeC is a living lab that provides financial, technical and legal support for home renovations with the aim of improving the quality of life of its owners. The pilot project has renovated twenty housing units and is currently planning to be replicated in other regions. The scaling-out process was enhanced by the establishment of networks, by the good relationship and transparency in the relationship between all stakeholders involved with the living lab, the commitment of the agents and the availability of resources.

2.1.3 Scaling deep (depth). It is the stage of expansion of a social innovation with the mission of creating social value in its place of origin. It involves cultural changes, personal transformations, changes of beliefs related to the agents involved and the people affected (Riddel & Moore, 2015). It profoundly transforms the place itself (Riddel & Moore, 2015). Figure 3 shows scaling deep.

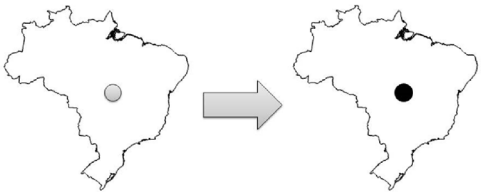
An example of scaling deep is Banco Pérola, a social business created by Alessandra França, in the Brazilian city of Sorocaba. Banco Pérola addresses productive microcredit to young people aged 18-35 belonging to classes C, D and E. The microcredit granted is a loan ranging from fifty to five thousand *reais*, with low interest rates. As a strategy for sustainability, this social business has established partnerships with commercial banks and local companies in order to raise funds to increase the reach of the bank in its locality. The increase in the number of partners was, over time, closely related to the process of scaling deep. According to Nascimento, Fazion, Oliveira, & Hid (2012), Banco Pérola's action has changed the lives of many people and added value to the community in which it belongs, where many young people have been able to open their own businesses, generating employment and economic growth.

Here follows the list of works, which integrated this mapping, that identified and discussed the different types of scalability, either pure or hybrid (Table I).

3. Methodology

This article constitutes a bibliometry that, according to Araújo (2006), is generally a quantitative technique with the aim of presenting indexes of scientific production. Thus, most articles using this technique use statistics to describe aspects of the literature. However, Araújo (2006) advises that, in addition, bibliometric analysis include qualitative and in-depth analysis. Considering the suggestions of Araújo (2006), Iizuka, Varela, and Larroudé (2014) developed a bibliometric model that contemplates the traditional bibliometric analysis and the qualitative analysis of the researched sample, according to Figure 4. This bibliometry adopted the model proposed by Iizuka *et al.* (2014).

The topic researched in this bibliometry is the scalability of social innovation. The databases chosen for this research were Portal Periódico Capes and EBSCOHost because



Source: Prepared by the authors

Figure 3. Representation of scaling deep

Table I. Types of scalability addressed in the papers that integrated this mapping

Scalability type	Papers
Scaling up	Pandey *et al.* (2017), Gramescu (2016), André and Pache (2016), Webb *et al.* (2010), Berzin and Pitt-Catsouphes (2015), Alegre (2015), Trémolet, Mansour, and Muruka (2015), Konda, Starc, and Rodica (2015), Braga *et al.* (2014), Wiguna and Manzilati (2014), Hadad and Gauca (2014), Desai (2014), Iizuka *et al.* (2014), Danciu (2013), Smith *et al.* (2013), Bhatt and Altinay (2013), Dees (2013), Enciso, Gómez, and Mugarra (2012), Bloom and Skloot (2010), Dees (2012), Perrini *et al.* (2010), Werner (2009), Viravaidya, Wolf, and Guest (2008), Dees (2007), Dees *et al.* (2004)
Scaling deep	Moura *et al.* (2015), Nascimento *et al.* (2012)
Scaling out	Heuts and Versele (2016)
Scaling up and scaling out	Chaves, Rocha, Reuther, and Galhanone (2017), Maguirre, Ruelas, and Torre (2016), Pitt and Jones (2016), Westley *et al.* (2014), Beckie *et al.* (2012), Westley and Antadze (2010); Douthwaite, Kuby, Fliertc, and Schulzd (2003)
Scaling up and scaling deep	Silva *et al.* (2016)
Scaling up, scaling out and scaling deep	Warnecke and Houndonougbo (2016)

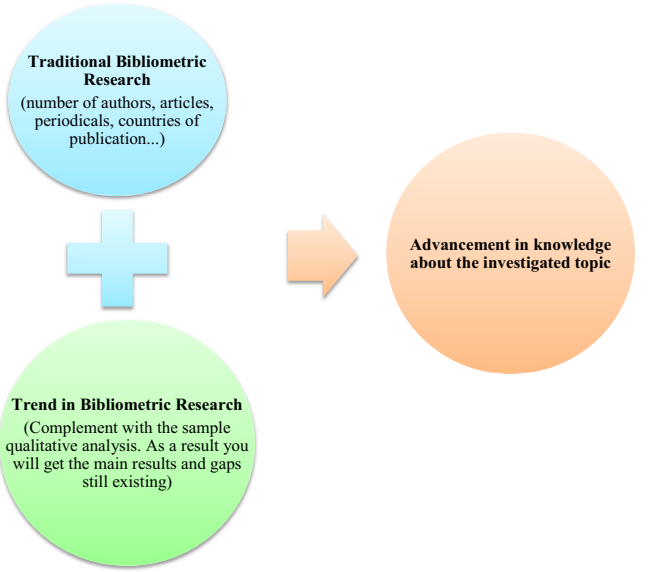


Figure 4. Model of bibliometric research adopted

Source: Adapted from Iizuka *et al*. (2014)

they are the leading providers of research databases. The search for studies occurred through a combination of terms: *Inovação Social e Escalabilidade*; Social Inovation and Scalability; Scaling (can be up, out or deep) and *Inovação Social*; Scaling (can be up, out or deep) and Social Inovation; *Negócios Sociais e Escalabilidade*; Social Business and Scalability; *Negócios Sociais* and Scaling (can be up, out or deep); Social Business and Scaling (can be up, out or deep). These terms have been searched for in titles, abstracts

and keywords. For this analysis, we selected papers in the English, Portuguese and Spanish, as these are the main languages spoken by the authors.

We did not limit the period of time because it is a new topic to be explored. Thus, we used all the studies found until November 2017, which resulted in a total of 42 articles analyzed.

In order to promote the analysis and to explore the findings of the studies already published on the subject, some criteria were used: the origin of the study (composed by year of publication, authorship, country of origin, periodical in which it was published and impact factor), the focus of investigations (emphasis on the object analyzed), justification (underlining the reasons for the choices made for the paper), method and main research techniques that the article used to achieve the results, contributions and theoretical advances that the article brought to the theme and, finally, challenges to be overcome in future studies. That said, the next topic details the results found.

4. Results

The results of the search showed that scalability is a topic that began to be researched recently, since in the databases Portal Periódico Capes and EBSCOHost the first article found is dated from the year of 2002.

4.1 Source

In the period from 2002 to 2009 one article was found per year. In 2010, it is noted that the number of articles starts to increase, highlighting the years 2012 and 2014 with 6 articles and 2016 with 10 (Table II). In addition, the analysis showed that scalability studies come from many places in the world. The USA stood out with seven publications and Brazil with five. It is valid to explain that North Carolina (USA), more specifically the University of Durham, presents five publications due to the relation of the author Gregory Dees with the institution. Dees has been working with social innovation since 1990, and scalability was a ramification in his investigation.

It should be noted that none of the authors of the studies analyzed is dedicated to the topic of scalability as a main research theme. This implies a lack of continuity on scalability of social innovation studies, since it was seen as a branch of the SI theme, an opportunity to promote the study of the theme, or even an outcome of SI. When checking the authors and coauthors of the 42 articles, 82 researchers were added, but of these only 3 names were repeated: Antadze (twice); Dees (four times); and Westley (twice), and the authors Antadze and Westley share authorship of the same articles. The academic impact of the studies that approach scalability was verified through an analysis of the impact factor of the journal where the article was published. The impact factor of a scientific journal, according to Pinto and Andrade (1999), is a parameter used to evaluate comparatively periodic scientific journals from the same field. Many articles were published in journals without an impact factor, with the highest factor being 3,414. Thus, they are said to have a low scientific impact.

4.2 Focus of investigations

From the selected articles, 31 per cent explored or described the scalability process presenting the stage of comprehensiveness, expansion or depth through the lenses of their agents and, sometimes, of the supporting actors. The strategies used by the agents in the scalability process were discussed with different focuses: 12 per cent of the studies sought to explain the strategies used to expand and 4,8 per cent explored the expansion strategies highlighting the factors that implied decisions throughout the process. The factors that imply the scalability process were illustrated in 14.3 per cent of the studies. The concern

Table II. Articles that addressed scalability according to year, authors, place of origin, periodical in which they were published and impact factor

Year	No. of articles	Authors	Where the authors are from	Journal	Impact factor
2002	1	Tschang, Chuladul & Le	Singapore	*Jounal of International Deveelopment*	0.786
2003	1	Douthwaite, Kubyb, Flierto & Schulz	Colombia, Germany and India	*Agricultural Systems*	2.571
2004	1	Dees *et al.*	The USA (North Carolina)	*Stanford Social Innovation Review*	None
2007	1	Dees	The USA (North Carolina)	*Transaction Social Science and Modern*	0.500
2008	1	Viravaidya, Wolf & Guest	Thailand	*Global Public Health*	1.978
2009	1	Werner	Bangladesh	*Informatol*	None
2010	2	Westley & Antadze	Italy and United Kingdom	*The Innovation Journal: The Public Sector Innovation Journal*	None
		Perrini, Vurroa & Costanzo	Italy and United Kingdom	*Entrepreneurship & Regional Development*	1.629
2012	6	Nascimento, Fazion, Oliveira & Hid	Brazil (São Paulo)	*Revista Pensamento & Realidade*	None
		Dees	The USA (North Carolina)	*Science + Business Media*	None
		Bloom & Skloot	The USA (North Carolina)	*Book*	None
		Lyon & Fernandez	England	*Social Enterprise Journal*	None
		Beckie, Kennedy & Wittman	Canada	*Agric Hum Values*	None
		Enciso, Gómez & Mugarra	Spain	*Revista de Economía Pública, Social y Cooperativa*	None
2013	4	Dees	The USA (North Carolina)	*Stanford Social Innovation Review*	None
		Bhatt & Altinay	United Kingdom	*Management Decision*	1.134
		Danciu	Romenia	*Theoretical and Applied Economics*	None
		Smith, Gonin & Besharov	The USA	*Business Ethics Quarterly*	1.735
2014	6	Braga, Proença & Ferreira	Portugal (Porto)	*TÉKHNE – Review of Applied Management Studies*	None
		Wiguna & Manzilati	Indonesia	*Procedia – Social and Behavioral Sciences*	None
		Hadad & Găucă	Romenia	*Management & Marketing.*	1.367
		Desai	India	*Procedia – Social and Behavioral Sciences*	None
		Iizuka, Varela &Larroudé	Brazil (São Paulo)	*ERA – Revista de Administração de Empresas*	0.311
		Westley, Antadze, Riddell, Robinson & Geobey	Canada	*Journal of Applied Behavioral Science*	1.342
2015	5	Moura, Comini & Teodózio	Brazil (São Paulo)	*RAE-Revista de Administração de Empresas*	0.311
		Berzin & Pitt-Catsouphes	The USA (Boston)	*National Association of Social Workers*	None
		Alegre	Spain	*Social Business*	None
		Trémolet, Mansour & Muruka	England	*Waterlines*	None
		Konda, Starc & Rodica	Slovenia	*Informatol*	None

(*continued*)

Year	No. of articles	Authors	Where the authors are from	Journal	Impact factor
2016	10	Silva, Takahashi & Segatto	Brazil (Paraná)	*RAM – Revista de Administração da Mackenzie*	None
		Maguirre, Ruelas & De La Torre	Mexico (Monterrey)	*RAM – Revista de Administração da Mackenzie*	None
		Heuts & Versele	Belgium	*Energy Procedia*	None
		Gramescu	Romenia	*Procedia – Social and Behavioral Sciences*	None
		Warnecke & Houndonougbo	India	*Journal of Economic Issues*	None
		Voltan; Fuentes	Canada	*European Journal of Innovation Management*	None
		Pitt & Jones	United Kingdom	*Sustainability*	None
		Navin	The USA (Oakland)	*Journal of Social Philosophy,*	None
		Andre & Pache	France	*Journal Business Ethics*	1.837
		Webb *et al.*	Ireland	*Entrepreneurship Theory and Practice*	3.414
2017	2	Chaves *et al.*	Brazil (Santa Catarina)	*Internext – Revista Eletrônica de Negócios Internacionais*	None
		Pandey, Menezes & Ganeti	India (Mumbai)	*Stanford Social Innovation Review*	None

Table II.

about the social impact of an SI was addressed in 16.7 per cent of the investigations. The motivation for SI was a prominent theme to promote scalability, 4.8 per cent of jobs kept this focus. In addition, about 2.4 per cent discussed the potential for scalability of a SI, 9.5 per cent promoted a conceptual discussion on the subject and 4.8 per cent emphasized the need for the academia to undertake discussions on scalability (Table III).

The analysis of the published articles on the scalability of social innovation shows a wide-ranging approach, probably because the theme is recent and the studies do not have continuity (since the authors do not dedicate themselves to the scalability theme itself).

4.3 Justification of the papers

Regarding the justifications, it is possible to observe that the authors explore scalability because either they see it as a consequence of SI, or because it is a recent theme and there are only a few approaches on it. Most of the authors pointed out the importance of exploring the potential for scaling up the social impacts of a SI (27 articles) as a justification for undertaking investigations and reflections on scalability. Other few are divided into emphasizing the importance of understanding the scalability process (six articles); the existence of little literature on the subject (two articles); and, the motivation of the social entrepreneur to promote the scalability of SI (one article), according to Table IV.

4.4 Method and main research techniques

As this is a relatively new theme for the academic area, most of the works that integrated this mapping were classified by the authors as qualitative and exploratory. In order to fulfill the objectives, the majority of the authors chose to carry out a case study, in which they

Table III. Articles focus

Focus of investigations	Quantity	(%)	Studies
How the Scalability Process Occurs	13	31	Chaves *et al.* (2017), Voltan and Fuentes (2016), Pitt and Jones (2016), Trémolet *et al.* (2015), Nascimento *et al.* (2012), Dees (2013), Bhatt and Altinay (2013), Bloom and Skloot (2010), Beckie *et al.* (2012), Viravaidya *et al.* (2008), Douthwaite *et al.* (2003)
Strategies used in the scalability process	5	12	Maguirre *et al.* (2016), Desai (2014), Lyon and Fernandez (2012), Westley and Antadze (2010), Dees *et al.* (2004)
Strategies and factors that influence the scalability process	2	4.8	Heuts and Versele (2016), Danciu (2013)
Factors that influence the scalability process	6	14.3	Pandey *et al.* (2017), Silva *et al.* (2016), Warnecke and Houndonougbo (2016), Moura *et al.* (2015), Iizuka *et al.* (2014), Alegre (2015)
Social impact of SI (focusing on scalability)	7	16.7	Gramescu (2016), Konda *et al.* (2015), Hadad and Gauca (2014), Enciso, Gómez, and Mugarra (2012), Perrini *et al.* (2010), Werner (2009)
Motivation to promote the scalability process	2	4.8	Navin (2016), Braga *et al.* (2014)
Conceptual discussion	4	9.5	Wiguna and Manzilati (2014), Westley *et al.* (2014), Smith *et al.* (2013), Dees (2012)
Discussion over the need for scalability studies	2	4.8	Berzin and Pitt-Catsouphes (2015), Dees (2007)
Scalability Potential	1	2.4	Tschang, Chuladul, and Le (2002)

Justification	Articles
Importance of exploiting the potential for broadening social impacts	Pandey *et al.* (2017), Maguirre *et al.* (2016), Heuts and Versele (2016), Gramescu (2016), Warnecke and Houndonougbo (2016), Voltan and Fuentes (2016), Navin (2016), Trémolet *et al.* (2015), Berzin and Pitt-Catsouphes (2015), Alegre (2015), Konda *et al.* (2015), Desai (2014), Iizuka *et al.* (2014), Dees (2013), Bhatt and Altinay (2013), Smith *et al.* (2013), Enciso, Gómez, and Mugarra (2012), Dees (2012), Beckie *et al.* (2012), Bloom and Skloot (2010), Perrini *et al.* (2010), Werner (2009), Viravaidya *et al.* (2008), Dees (2007), Dees *et al.* (2004), Douthwaite *et al.* (2003), Tschang *et al.* (2002)
The importance of understanding the scalability process	Chaves *et al.* (2017), Pitt and Jones (2016), Moura *et al.* (2015), Westley *et al.* (2014), Lyon and Fernandez (2012), Westley and Antadze (2010)
There is little literature on the subject	Silva *et al.* (2016), Hadad and Gauca (2014)
Motivation to promote SI scalability	Braga *et al.* (2014)

Table IV. Justification for searching scalability

sought to understand the process of scalability under the lens of the players who took part in the co-creation of social innovation and/or those who were impacted by it, acting either as an agent or as a supporting player. As for the research techniques, it is noted that secondary data, documentary research, interviews, observation and participant research were sometimes considered, but in only one article the perception of the protagonists of the scalability process was not part of the analysis, as shown in Table V.

4.5 Findings and theoretical advances

The studies analyzed herein have promoted insights about the scalability of social innovations, so some results deserve to be highlighted. Many investigations have emphasized the role of networks as being quite positive for the scalability process.

Qualitative and exploratory			29
Case studies	25	Interviews	09
		Interviews and Secondary Data	02
		Interviews and Documentary Analysis	01
		Interviews and Focus Group	01
		Interviews and Observation	01
		Did not specify	14
Action research			01
Qualitative and descriptive			02
Case study	1	Did not specify	01
Action research			01
Qualitative and quantitative			01
Data collect	1	Research in literature, documentaries, interviews and secondary data	01
Quantitative			02
Secondary Data Analysis			01
Construction of measuring instrument			01
Meta-synthesis			01
Bibliometric			01
Essays			07

Table V. Research methods and techniques

Werner (2009) argued that partnerships between nongovernmental organizations and large corporations (via corporate social responsibility) enhance the scalability of social innovations, especially those with high impact. Defending such argument, Werner (2009) cites the availability of financial resources and the managerial experience of corporations, explaining how such factors can affect the process of scalability.

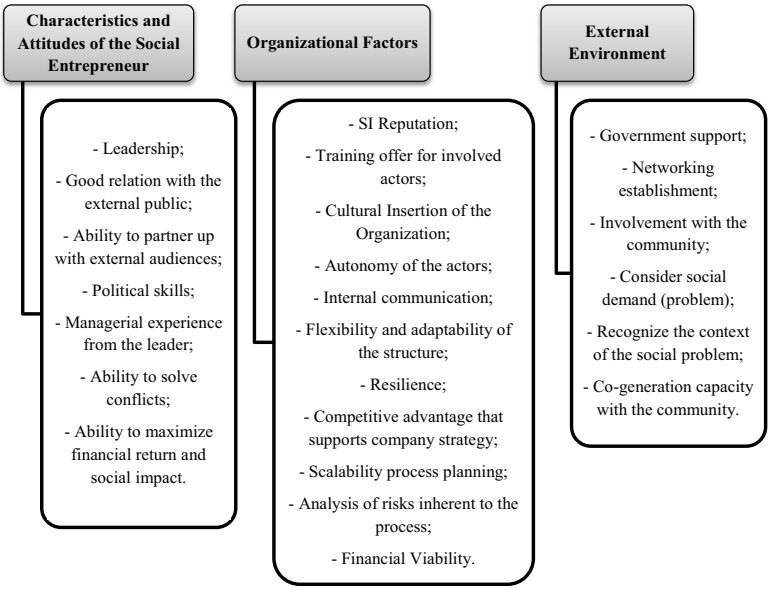
Braga *et al.* (2014), Heuts and Versele (2016) and Voltan and Fuentes (2016) reiterated that the construction of a network of contacts enhances scalability processes. In this sense, Moura, Comini and Teodósio (2015) and Silva *et al.* (2016) consider the creation of networks a strategic factor for this process. Of the players that make up the network of a SI, for Silva *et al.* (2016) and Pandey *et al.* (2017), the government deserves to be highlighted, because when it is seen as a partner and not as an enemy or a barrier maker, the scalability process becomes easier.

Still highlighting the creation of networks, Beckie, Kennedy and Wittman (2012) argue that both vertical and horizontal collaborations enhance the scalability process. Westley and Antadze's (2010) research points to the importance of building networks of relationships and building partnerships to enhance scaling up and scaling out.

It is worth mentioning also the investigations that identified factors that contribute to the scalability process. Silva *et al.* (2016), in a metasynthesis on scalability, have evidenced different groups of factors that influence the process: characteristics and attitudes of the social entrepreneur; organizational factors; and environmental factors. As for the characteristics and attitudes of the social entrepreneur, they mention: (i) leadership, (ii) good relations with the internal public, (iii) ability to establish a partnership with the external public (including other organizations) and (iv) political ability. Regarding organizational factors, the authors highlight: (i) the reputation of SI, (ii) training to the players involved, (iii) cultural insertion and (iv) autonomy of the players. Regarding the external environment, they mentioned: (i) government support, (ii) achieving financial sustainability, (iii) networking and (iv) involvement of the community.

Other works also identified the factors that imply the scalability process, such as Voltan and Fuentes (2016), who listed the factors: (i) the autonomy of the actors; (ii) internal communication; (iii) flexibility and adaptability of the structure. Also noteworthy are Westley *et al.* (2014) that pointed out five elements that enhance the process of scaling up: (i) adaptability, resilience and flexibility; (ii) competitive advantage that supports the company's strategy; (iii) ability to achieve good performance; (iv) planning of the expansion process; (v) verification of risks associated with the process. In a complementary way, Westley and Antadze (2010) emphasize that for the process of scaling up it is necessary: (i) to consider the social (problem) demand; (ii) the managerial experience of the leader; and (iii) the establishment of networks. As for the process of scaling out, they show that: (i) it is necessary to recognize the opportunity of scalability; (ii) recognize the context of the social problem; and (iii) identify the need to promote social impact and be financially sustainable (Westley & Antadze, 2010).

Moura *et al.* (2015) identified some factors that they considered strategic for the scalability process: (i) ability to resolve conflicts; (ii) ability to maximize financial returns and social impact; (iii) establishment of partnerships and alliances; and, (iv) co-creation capacity with the community. Alegre (2015) also highlighted the beneficiary's involvement in the co-creation process. Figure 5 summarizes the factors, listed in literature, that influence the scalability process.



Source: Prepared by the authors

Figure 5. Synthesis of factors that influence the scalability process

4.6 Challenges to be overcome in future studies

The challenges to undertake the process of scalability, as well as ways to overcome them, were addressed in several works. It is worth mentioning that the most cited challenge was the financial sustainability of an SI (Braga *et al.*, 2014; Pandey *et al.*, 2017; Werner, 2009). On the financial issue, Izuka, Varela and Larroudé (2014) argued that financial returns are not always combined with better organizational performance. Paradoxically, an increase in financial returns may weaken cohesion among members of a community due to the nontransparent distribution of this resource. In order to overcome such challenge, also pointed out by Dees, Anderson and Wei-Skillern (2004), it is suggested that community councils be formed to make financial decisions collectively (Dees *et al.*, 2004).

Smith, Gonin, and Besharov (2013) have identified, throughout the scalability process, tensions that can be seen as challenges to be overcome for the process to take place. The authors identified such tensions in three groups, stresses related to performance, organizational tensions and internal stress. The stresses related to the performance derive from the distortions between the objectives and the results; the organization's tensions are due to dynamics, structure, culture, practice and process; and internal tensions are, for example, conflicts among employees.

The work of Braga *et al.* (2014) showed as challenges (i) the mobilization of financial resources and human resources; (ii) bureaucracy in the process of creating social enterprises; (iii) monitoring of innovations; (iv) time management; (v) managing the network of relationships; and (vi) lack of credibility. Perrini, Vurro and Costanzo (2010) pointed out as limitations in the scalability process the lack of models of these processes and the lack of investors.

In order to overcome the challenges, Braga *et al.* (2014) point out that social entrepreneurs should seek (i) financing alternatives; (ii) the construction of a network of contacts; and (iii)

the establishment of benchmarking with a SI that has already undertaken the expansion process and obtained a positive result. It is also worth mentioning the work of Pandey *et al.* (2017) who discussed five behaviors to overcome the challenges of scalability: (i) to maintain focus on the social impact to be generated; (ii) foster the commitment of each participant; (iii) controlling resources (when there is a shortage, costs must be reduced); (iv) use creativity and focus on innovation; and (v) make government a partner.

In general, it is worth mentioning that the authors of the analyzed scientific publications have shown that they believe that public policies alone cannot promote the solution to social problems. However, companies, through corporate social responsibility actions and social entrepreneurs, would have greater potential for this, as they have greater freedom of action and greater possibility to explore bureaucratic alternatives and funding, for example (Dees, 2007). It should be noted that most articles on scalability present a managerial bias. The studies analyzed also pointed to gaps about the literature, which became suggestions for researchers to undertake future research. These suggestions were the basis for the elaboration of the proposed research agenda in the final considerations. Table VI summarizes the gaps by linking them to the works.

5. Final considerations

This article aimed to map the studies about scalability of social innovation present in the Capes Periodic Portal and in EBSCOHost. The analysis of the results enabled to verify that

Indicated gaps	Authors
Critical reflection on scalability and process results.	Pitt and Jones (2016), Berzin and Pitt-Catsouphes (2015)
Preparation of cases for teaching.	Berzin and Pitt-Catsouphes (2015)
Development of Models/Instruments capable of measuring the social impact of SI (financial and non-financial). Development of social impact indicators.	Konda *et al.* (2015), Hadad and Gauca (2014) Iizuka *et al.* (2014), Bloom and Skloot (2010)
Scalability Process Analysis	Chaves *et al.* (2017), Pandey *et al.* (2017), Maguirre *et al.* (2016), Voltan and Fuentes (2016), Moura *et al.* (2015), Trémolet *et al.* (2015), Beckie *et al.* (2012), Perrini *et al.* (2010), Douthwaite *et al.* (2003)
The Scalability Process of Government Programs	Maguirre *et al.* (2016)
Exploring the scalability process of specific industries	Warnecke and Houndonougbo (2016)
SI governance during the scalability process	Nascimento *et al.* (2012)
Observe under different lenses (Resource-Based Theory, Stakeholder Theory, Agency Theory, Organizational and Interorganizational Learning and Competence, Institutional Theory, and others)	Silva *et al.* (2016)
Aspects (political, cultural and religious) and strategic factors that imply the process of scalability (under the lens of agents and stakeholders)	Voltan and Fuentes (2016), Moura *et al.* (2015), Wiguna and Manzilati (2014), Beckie *et al.* (2012)
Motivation of social entrepreneurs to promote the scalability process	Braga *et al.* (2014), Iizuka *et al.* (2014), Wiguna and Manzilati (2014)
Comparative studies	Moura *et al.* (2015)
Explore the potential for scalability in social innovation (pointing to factors and possibilities)	Gramescu (2016)
Descriptive study on SI scalability	Iizuka *et al.* (2014)

Table VI. Gaps pointed out by the analyzed works

the studies on the subject are recent, starting in 2002. However, from 2010 onwards it was noticed that there was a growing interest in scalability. In addition, although the articles can be found in several different countries, the USA and Brazil lead the studies. Regarding the authors, it was possible to notice a variety of researchers interested in the social innovation theme, but linking it to other research topics; that is, they do not have the scalability of social innovation as their main research topic.

Most studies focused on the scalability process and justified the importance of studies on the subject as a way of exploring the potential for broadening the social impacts of a SI. In addition, most of the studies were of a qualitative-exploratory nature, whose method was the case study. With regard to research techniques, the interview was the most frequent one.

Several studies have emphasized the role of networks as being quite positive for the scalability process and have been concerned with identifying factors that contribute to the scalability process with respect to the characteristics and attitudes of the social entrepreneur, organizational factors and the external environment. The challenge that most stood out among the articles was the financial sustainability of a SI. In order to overcome the challenges, the alternatives that appeared were linked to financing, networking, benchmarking with positive experiences of scalability, commitment of the participants, use of creativity and partnerships with the government.

In view of the presented results, the following research agenda is suggested:

- to develop and validate a scale that is capable of measuring the social impact of social innovation projects, thus enabling the impact of project scalability to be measured;
- to undertake a process analysis study of governmental programs;
- to undertake case studies in order to explore the scalability process of specific sectors;
- to develop new articles that use life history to analyze aspects (political, cultural and religious); strategic factors that imply the process of scalability (under the lens of agents and stakeholders); and motivation of social entrepreneurs to promote the scalability process;
- as many investigations show the importance of networks to undertake the process of scalability, it is suggested to undertake a study about network mapping and network formation of a SI;
- it is also added the pertinence of investigations that ratify and complement the findings regarding the factors that influence the process of scalability; and
- to promote interest in the scalability of social innovation, we suggest the presentation of case studies to be taught in undergraduate courses.

In summary, the main contributions of this work were the compilation of insights (even if recent and not deepened), the reflection and the construction of representations on the subject, besides the revelation of the needs of future studies. The study indicates the theme is promising, as it showed the scope and even the superficiality with which the theme of social innovation is scaled, only as a complement or research opportunity, without the continuity of the researcher's interest. Finally, the proposed research agenda points out ways for the necessary deepening and strengthening of scientific research on the subject.

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