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# Social entrepreneurship and social innovation: A bibliometric review and research agenda

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#### ABSTRACT

Despite the increasing focus on scientific maturity in social entrepreneurship (SE) and social innovation (SI), scholars still place a greater focus on defining theoretical boundaries than on the commonalities and complementarities between these phenomena. We address this gap by investigating when, how, and to what extent SE and SI are interrelated via a bibliometric analysis of the intersection of the SE and SI theoretical domains that combines cocitation analysis, historiography, and bibliographic coupling. Building on these results, we advance the theoretical debate by introducing a novel framework, documenting that while the SI process can occur beyond social enterprises' boundaries, SE can contribute to creating, enabling, and scaling SI solutions. Moreover, we document historical convergence in a new trend accompanying the increase in SI research under the SE umbrella. This leads to a research agenda that can prompt the cross-pollination of these theories, fostering a novel theoretical construct through this combination.

#### 1. Introduction

In recent decades, scholars' efforts to advance research on social entrepreneurship (SE), which promotes equality and inclusivity by advancing social innovation (SI), have increased noticeably (e.g., Olivetti, Yunus, etc.). From this perspective, SE and SI have been central to tackling grand challenges (Bhukya, Paul, Kastanakis, & Robinson, 2022; Kaushik, Tewari, Sahasranamam, & Hota, 2023), rebalancing social and economic power (Goglio-Primard, Simon, Cohendet, Aharonson, & Wenger-Trayner, 2020), pursuing institutional changes (Shijaku & Elgoibar, 2022) and, ultimately, contributing to poverty alleviation (Winarno & Agustina, 2022).

Previous research has explored the link between SE and SI. From a theoretical standpoint, SI is conceptualized as a process of addressing a social problem by creating products or services that require transcending sectors, levels of analysis, and methods to provide a holistic and comprehensive understanding of the impacts on society (Phills, Deiglmeier, & Miller, 2008). For example, the creation of a novel system for accessing drinking water in rural areas of developing nations requires a complex and coordinated process of SI that engages multiple stakeholders to create value primarily for communities as a whole rather

than for the private organizations that are engaged in the process. One of the contexts in which SI solutions can be developed is that of SE, among other contexts such as public policy. Within this framework, SE is about balancing the financial and social goals necessary for the implementation, sustainability, and scaling of innovations (Phillips, Lee, Ghobadian, O'regan, & James, 2015). Accordingly, within an SE context, the SI of drinkable water takes the form of a new business model, product or distribution process, such as those of WAMI¹ (water with a mission), which implements a 'buy one give one' model which leads to the donation of 100 L of water to developing nations for each bottle sold.

Accordingly, the logics, challenges, and natures of the SE and SI processes differ, yet they are connected in multiple ways. For example, SI has been measured as an outcome of SE (Dwivedi & Weerawardena, 2018; see also Oeij, Van Der Torre, Vaas, and Dhon, 2019), which indicates that these two concepts overlap both conceptually and empirically. Moreover, on the one hand, SI may face resistance when adopted by some parties and stakeholders who do not consider it to be viable or feel threatened by the changes that it represents (de Souza João-Roland & Granados, 2020); on the other hand, SE should be focused on actions and strategies for overcoming such obstacles, establishing influential relationships, harvesting resources, and developing alternative

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<sup>1</sup> https://wa-mi.org/.

platforms to promote innovation (Morris et al., 2021).

However, while the fundamentals of SE and SI seem inseparable, many scholars have argued that "social innovation is not social entrepreneurship" (Morris, Santos, and Kuratko, 2021, pp. 1093) and questioned whether SI necessarily occurs within SE and, conversely, whether social entrepreneurs necessarily have to create SI (Portales, 2019). Rather, we argue that this debate should transcend an exploration of the boundaries between SI and SE and embrace a holistic approach to investigate not only the differences but also the commonalities and complementarities between them. Building on this, we intend to advance the academic debate by posing the following research question: When, how, and to what extent are SE and SI interrelated? Addressing this research gap can provide a comprehensive understanding of the theoretical interconnections between SI and SE, unveiling the underpinning logics and relationships and thereby advancing the field toward a more structured and theoretically bounded integration of these studies, thus encouraging the pursuit of genuinely novel insights (Bacq, Drover, & Kim, 2021; Paul & Menzies, 2023).

To pursue this goal, we conduct a systematic analysis of the literature that goes beyond the methodological limits of previous works (see Rey-Martí, Ribeiro-Soriano, & Palacios-Marqués, 2016 for a review on SE and Cancino, Merigó, Urbano, and Amorós, 2023, for one on SI). In this paper, we address this gap by performing an in-depth bibliometric analysis of 950 research articles taken from the Web of Science database. While previous work has remained limited to traditional bibliometric indicators (e.g., keywords, leading authors, etc.), we deploy a unique combination of three bibliometric techniques-cocitation analysis, algorithmic historiography, and bibliographic coupling—to enhance the comprehensiveness of our analysis (Zupic & Cater, 2015).

Through this analysis, we make three primary contributions. First, we advance the research by introducing a novel framework for unpacking the theoretical interconnections between SE and SI. This shows that while the SI process can occur beyond the boundaries of social enterprises, SEs can also play a role in creating, enabling, and scaling SI solutions. This is important for revealing that SI can occur within SE boundaries and vice versa and that there are circumstances in which these two may become disconnected. Second, we observe that SI recently emerged from the SE literature and has almost been parallel to the SE literature, which may represent a historical convergence and mark the beginning of a new research trend in this field. Building on this, we introduce a research agenda that offers opportunities for theoretical integration between that of SE and SI. This opens a new research trajectory that extends beyond the intersection between these two strands of literature, for which SE and SI represent the theoretical roots, thus enabling scholars to draw upon a new theoretical construct via the combination of the two. This 'third' independent research route may match previous, successful attempts to merge two different yet related studies into a new construct (e.g., ethical entrepreneurship as the convergence of entrepreneurship and ethics). Third, from a methodological standpoint, we take a relatively novel approach in this paper that represents a rigorous combination of three bibliometric techniques to enhance the comprehensiveness of the findings, thereby potentially overcoming the limitations of the existing bibliometric SE and SI reviews. While this approach has been used previously (e.g., Vogel, Reichard, Batistič, & Černe, 2020), it is a relatively novel approach in the context of the literature analysis of the intersection between two fields.

#### 2. Literature review

Building on the seminal works of Bowen (1953), scholars have highlighted the role of SI in the entrepreneurial process (Kickul, Griffiths, Bacq, & Garud, 2018). From a theoretical standpoint, these two concepts may appear complementary due to their shared goal of promoting the "common good". While SI addresses 'what' and 'when', a process of social value creation occurs, which is defined as "a novel

solution to a social problem that is more effective, efficient, or just than existing solutions and for which the value created accrues primarily to society as a whole rather than private individuals" (Phills et al., 2008, p. 39). SE encompasses an attempt to investigate the relevant 'who' within and 'how' and 'why'. Such a process unfolds through the consideration of the "activities and processes undertaken to discover, define, and exploit opportunities to enhance social wealth by creating new ventures or managing existing organizations in an innovative manner" (Zahra, Gedajlovic, Neubaum, & Shulman, 2009, p. 519). In the following section, we explore the extant systematic and bibliometric SE and SI reviews.

#### 2.1. Extant SE literature reviews

Over the past decade, increasing academic efforts have contributed to the development of scientific maturity in the field of SE.<sup>2</sup> In this debate, SE scholars have developed rigor and quality in their systematic reviews (Short, Moss, & Lumpkin, 2009; Gupta, Chauhan, Paul, & Jaiswal, 2020; Ranville and Barros, 2021), focusing on the concepts, levels of analysis, and definitions of social enterprises (Bacq & Janssen, 2011; Saebi et al., 2020), including hybrid organizations (Doherty, Haugh, & Lyon, 2014), as well as conceptual divides that exist within such streams (Morris et al., 2021). Moreover, as providing contributions to both society and financial sustainability are two of the coexisting SE goals, literature reviews have been focused on the tensions that are derived from social-financial trade-offs (Smith, Gonin, & Besharov, 2013) as well as the tools and methods applied for social impact measurement (Rawhouser, Cummings, & Newbert, 2019). Finally, the importance of the entrepreneurial ecosystems surrounding social enterprises have been recognized through a mapping of the nexus with social networks (Dufays & Huybrechts, 2014) and business relationships (Alinaghian & Razmdoost, 2021).

As the field of SE has grown, scholarly reviews have come to be based on bibliographic data (Kaushik et al., 2023). Thus, research has documented the approaches, drivers (Macke, Sarate, Domeneghini, & da Silva, 2018), and intellectual structures of SEs (Granados, Hlupic, Coakes, & Mohamed, 2011; Hota, Subramanian, & Narayanamurthy, 2020). Moreover, given the relevant academic contributions recognizing SE as a powerful mechanism for alleviating social inequalities, scholars have mapped the literature on shared value creation (Lashitew, Narayan, Rosca, & Bals, 2021), that on the impact of sustainable entrepreneurship (Anand, Argade, Barkemeyer, & Salignac, 2021), and that on the methodological issues commonly encountered when investigating such phenomena (Sassmannshausen & Volkmann, 2018).

#### 2.2. Extant reviews on SI

Scholars have widely recognized the role played by SI in supporting economic development toward more sustainable goals (Singh, Dhir, Das, & Sharma, 2020). Accordingly, the academic community has developed systematic SI reviews that enable the identification of knowledge gaps as well as further the understanding of the evolution of this field (Edwards-Schachter & Wallace, 2017). Such reviews have mapped SI research based on different levels of analysis, including those of corporate SI (Dionisio & de Vargas, 2020) and public management (Voorberg, Bekkers, & Tummers, 2015). Moreover, the literature has also analyzed, for example, articles on the capabilities of SI (Batista & Correia, 2021) and those on SI in higher education (Lough, 2021).

Numerous bibliometric analyses of SI in entrepreneurship have supported the research in this field (Cancino et al., 2023; Escobar, Schiavone, Khvatova, & Maalaoui, 2023; Dabić et al., 2023).

<sup>&</sup>lt;sup>2</sup> A detailed table by request to the authors - Supplement material, Table 1.

<sup>&</sup>lt;sup>3</sup> A detailed table by request to the authors - Supplement material, Table 2.

 $<sup>^{4}</sup>$  A detailed table by request to the authors - Supplement material, Table 3.

<sup>&</sup>lt;sup>5</sup> A detailed table by request to the authors - Supplement material, Table 4.

Accordingly, scholars have conducted empirical research on open innovation (Randhawa, Wilden, & Hohberger, 2016), the challenges and strategies for achieving SI scalability across regions and beneficiary targets (Bolzan, Bitencourt, & Martins, 2019), and innovation during the COVID-19 pandemic (Wang, Qin, Xu, & Škare, 2022). Finally, a map of intellectual communities and theoretical domains has also been developed by scholars (Van der Have & Rubalcaba, 2016).

These works have separately documented and mapped the contributions made to the SE and SI literature. One exception is Phills et al. (2008), who argued that "social entrepreneurship and social innovation share common overlaps, significantly in the process of identifying problem-solving opportunities for unmet social needs" and highlighted that "social enterprises and social entrepreneurs exist within a social innovation system—a community of practitioners and institutions jointly addressing social issues". Our work extends these seminal efforts by offering a more comprehensive explanation of the volume, trends, and clusters that occur within the literature to provide a detailed map and offer a future research agenda (Linnenluecke, Marrone, & Singh, 2020) with the potential to enhance the clarity of the theoretical boundaries and overlaps that exist between these domains.

#### 3. Methodology

Bibliometric methods are not new (Kessler, 1963; Small, 1973), but they have long been limited by a lack of easy-to-use software and accessible bibliometric data. However, these factors have recently proliferated among management scholars. For example, there were 1950 papers in which bibliometric methods were applied published in 2020. Bibliometric methods can be used to aggregate and leverage citation data to construct maps of specific scientific fields (Zupic & Čater, 2015). In these ways, such methods are used to consolidate the opinions of many researchers publishing in a particular field and to express their opinions through citations.

Our aim is to build a thorough understanding of the foundations, development and current research positioned at the intersection of SE and SI. To achieve that goal, we use three bibliometric methods (Zupic & Čater, 2015): (1) cocitation analysis (Small, 1981) for examining the theoretical foundations of our area of interest; (2) algorithmic historiography (Garfield, Pudovkin, & Istomin, 2003) for tracing the historical evolution of our area of interest; and (3) bibliographic coupling (Kessler, 1963) for mapping its current development.

In this study, we followed the process outlined in Zupic and Čater (2015). First, we searched the Web of Science (WoS) for the following search terms in the Topic section of the Web of Science record: "social entrep\*" or "social inno\*" or "impact entrep\*" or "impact inno\*". This search included all the documents for which search terms appeared in the title, abstract or keywords of the WoS record. The Web of Science database is the most commonly used database in bibliometric studies (Zupic & Cater, 2015). We limited the search to business, management and economics categories. We excluded conference papers and book chapters and retained only papers published in the scientific journals indexed by the Social Science Citation Index. The index follows a rigorous process regarding the inclusion of publications, which means that the journals included in the index are more likely to have gone through a rigorous peer-review process. This approach resulted in 1236 documents. Two authors individually read the abstracts of all these articles and assigned them to either the scope of SE or the scope of the SI. The criteria for inclusion were that SE or SI serve as central concepts in the study, rather than simply being sporadically mentioned. We used definitions of SE and SI taken from previous reviews. Any differences were resolved by a third author. This process resulted in a final dataset of 950 papers.

In the next step, we analyzed our dataset using three separate methods. Cocitation analysis (Small, 1973) was applied to examine the secondary documents cited by our primary dataset of 950 papers. This approach can reveal connections between cited documents based on

their appearance in the same reference list. The more that two documents are cited together, the stronger the connection between them is (Zupic & Čater, 2015). Cocitation analysis is applied to aggregate these dyadic links for constructing maps of scientific fields. These maps then reveal the intellectual structure of the theoretical foundations of their focal fields.

Historiography (Garfield et al., 2003; Vogel et al., 2020) is the use of citations to trace the flow of ideas over time. In essence, a chronological map of a field is constructed by combining primary documents (the 950 found by our search) and secondary documents (those cited by our primary dataset documents). As such, this process reveals the development of a field and its main research streams.

Finally, bibliographic coupling (Budler, Župič, & Trkman, 2021; Kessler, 1963) is used to analyze primary documents based on the overlaps in their reference lists. The more repeated references in two documents' reference lists that there are, the stronger the connection between those two documents. Again, many such dyadic links are aggregated in bibliographic coupling to build a bibliographic map of a field that identifies the structure of its contemporary research.

We applied these three methods because of their comparative strengths. Cocitation analysis is highly suitable for analyzing the theoretical foundations of reviewed research studies. As such, it reveals clusters of important influences as they shape the field. However, its limitation is that it requires an accumulation of citations, which means that it cannot be used to analyze very recent studies that have yet to be cited. Bibliographic coupling solves this limitation, as it connects the documents on the basis of overlapping reference lists, so it can be applied to very new (and thus uncited) studies. Thus, this is the most appropriate method for studying research fronts (Zupic & Cater, 2015). Historiography complements these two methods, as it can be used to reveal the development of the field over time. Both cocitation and bibliographic coupling provide snapshots of a field at a specific point in time. To show the field's development, they would need to be applied separately to different periods. Historiography overcomes this limitation by showing the most important paths of development in a single map on the basis of citations.

We used VOSviewer (Van Eck & Waltman, 2009; van Eck & Waltman, 2017) for cocitation and bibliographic coupling analysis and Cit-NetExplorer (van Eck & Waltman, 2014) for historiographic analysis. Additionally, we used bibliometrix (Aria & Cuccurullo, 2017) for citation analysis.

#### 4. Findings

#### 4.1. Study 1: cocitation analysis

#### 4.1.1. Identification and characterization of seminal texts

Through a cocitation analysis (CCA-R), we identified a set of 10 seminal papers (Table 1).

This sample shows that both management and entrepreneurship journals have served as the primary outlets for leading research on SE and SI (Fig. 1). Early research was predominantly published in North America, with few exceptions in Europe. Specifically, only Harvard Business School has three articles among the top 10 cited articles on this topic. Furthermore, it is interesting that the *Journal of Applied Behavioral Science*, which does not take entrepreneurship as its primary focus, is included in this list, thus demonstrating the cross-theoretical domains SE and SI research. Finally, the CCA-R revealed six distinct groups of articles that were referenced in conjunction with each other.

#### 4.1.2. Conceptualization of SE and SI creation

The papers in the red group have defined the conceptual boundaries of SE research that also includes elements of SI. For instance, Tan and colleagues (2005) provided definitions and meanings for SE. SE definitions often mention the role of SI. Perrini and Vurro (2006) introduced the term "socially innovative entrepreneurs" (p. 57), while Austin et al.

Table 1
Top 10 seminal texts.

No.	Citation	Journal	Group	Citations
1	Mair and Marti (2006)	Journal of World	RED	297
		Business		
2	Austin, Stevenson, &	Entrepreneurship Theory	RED	272
	Wei–Skillern (2006)	and Practice		
3	Zahra et al. (2009)	Journal of Business	LIGHT	224
		Venturing	BLUE	
4	Dacin, Dacin, and	Academy of Management	GREEN	172
	Matear (2010)	Perspectives		
5	Peredo and McLean	Journal of World	RED	156
	(2006)	Business		
6	Short et al. (2009)	Strategic	GREEN	153
		Entrepreneurship Journal		
7	Alvord et al. (2004)	The Journal of Applied	RED	136
		Behavioral Science		
8	Eisenhardt (1989)	Academy of Management	BLUE	127
		Review		
9	Dacin, Dacin, and	Organization Science	GREEN	124
	Tracey (2011)			
10	Battilana and Dorado	Academy of Management	YELLOW	121
	(2010)	Journal		

(2016) defined SE as "innovative, social value creating activity that can occur within or across the nonprofit, business, or government sectors" (p. 2). In this vein, scholars have argued that social entrepreneurs "play the role of change agents in the social sector by ... engaging in a process of continuous innovation, adaptation, and learning" (Dees, 1998, p. 4).

#### 4.1.3. Antecedents and role of the social context in enabling SE

VOSviewer

The green group of articles provide an understanding of the antecedents used for predicting social entrepreneurial intentions (Grimes, McMullen, Vogus, & Miller, 2013). Specifically, some scholars have placed their focus on individual traits. For instance, Bacq and Alt (2018)

observed that empathy motivates SE intentions, thereby influencing cognitive mechanisms of self-efficacy and social worth. Others have focused on social and institutional contexts as antecedents. For instance, in a highly cited article, Lepoutre, Justo, Terjesen, and Bosma (2013) measured population-based SE activity in 49 countries and found that those countries with higher rates of business-driven entrepreneurial activities also exhibit higher rates of social entrepreneurial businesses. In line with the latter, scholars have also recognized the role of ecosystems as antecedents of SE. For instance, Datta and Gailey (2012) observed a collective form of entrepreneurship engaged in by female self-employed individuals who enabled their own social inclusion and empowerment.

#### 4.1.4. Multilevel sources of SI

The articles in this group document the sources and actors who engage in the SI process. Some scholars have considered the SI process as "an organic process that unfolds from the dyadic relationship between actor and structure [...] participating in the development of social systems and institutions, which central elements of social innovation" (Cajaiba-Santana, 2014, p. 49). Similarly, in one of the most cited articles in this group, Phillips et al. (2015) highlighted that the SI process results from a "set of interrelated, yet independent, subsystems that, by means of interactive learning, contribute collectively toward the development of an innovation" (p. 450). Social enterprises can participate in such collective effort by establishing business models that enable SI implementation (Seelos & Mair, 2007) or by orchestrating a cultural and market change that favors social SI diffusion (Mair, Marti, & Ventresca, 2012).

#### 4.1.5. Hybrid organizations and dual mission management

The yellow group of articles presents social enterprises as hybrid organizations and documents the tensions that accompany social-commercial trade-offs. A highly cited article in this group defined

roberts d., 2005, u auckland b tan w.-l., 2005, int entrepren mort g., 2003, int j nonprofit chell e, 2007, int small bus j peredo am, 2006, i world bus, nga jkh, 2010, j bus ethics, v short jc, 2009, strateg entrep mair j, 2006, j world bus, v4 dacin pa, 2010, acad manage pe granovetter m, 1985, am j soci dacin mt, 2011, organ sci, v22 christensen cm, 2006, harvard eisenhardt km, 1989, acad mana dorado s, 2013, i bus venturin eisenhardt km, 2007, acad mana shepherd da, 2015, j bus ventu battilana j, 2010, acad manage ebrahim a, 2014, res organ beh battilana j, 2015, acad manage greenwood r, 2011, acad manag

Fig. 1. Cocitation analysis.

social enterprises as "a prime example of a hybrid organizational form [that] face conflicting institutional logics" (Doherty et al., 2014, p. 418). Numerous studies have investigated the institutional conflicts within hybrid organizations. For instance, Battilana and Dorado (2010) documented models of microfinance organizations that maintain their hybrid nature by combining commercial and social institutional logics. We can also observe empirical articles documenting the impact of dual mission management on SI. For instance, Jay (2013) developed a process model that "illustrates how 'sensemaking' amid organizational paradox that has emerged can be an important mechanism of change in hybrid organizations, one that affects their capacity to innovate" (p. 138).

#### 4.1.6. Mobilizing resource bricolage

The articles in the purple group mainly provide theoretical contributions involving the mechanisms pursued by social enterprises for mobilizing resources in the ecosystem to overcome institutional constraints. Specifically, scholars have introduced the term 'resource bricolage', which is defined as 'making do by applying combinations of resources already at hand to new problems and opportunities" (Baker & Nelson, 2005, p. 33). These practices can necessitate an innovative approach to shaping the institutional framework while also positively impacting societies (Desa, 2012). For instance, one of the most cited papers in this group introduced a new concept, namely, 'social bricolage', which is focused on mobilizing resources while creating social value for stakeholders who are engaged in the entrepreneurial process (Di Domenico, Haugh, & Tracey, 2010). Two other articles in this group investigated community-based social ventures as vehicles for mobilizing local resources to create SI (Haugh, 2007; Peredo & Chrisman, 2006).

#### 4.1.7. Sustainable entrepreneurship

Finally, in the light blue group, the articles are focused on the intersection between SE and SI in the field of environmental sustainability. In this vein, Zahra et al. (2009), the most cited article in this group, offered an understanding of ethical concerns in the shaping of

innovative sustainable entrepreneurial actions and policies. Moreover, Cohen and Winn (2007) documented the emergence of new forms of sustainable entrepreneurship that created innovative technologies and business models for counteracting the environmental degradation caused by market imperfections.

#### 4.2. Study 2: historiography

In this study, the historiography is focused on 100 nodes that represent the development of the SE and SI fields over time (Fig. 2). We can observe that the rise of the SE literature springs from the work of two main scholars: Leadbeater (1997) and Dees (1998). From a theoretical standpoint, SEs have been informed by institutional theory (DiMaggio & Powell, 1983; Granovetter and Action, 1985; North, 1990) and the resource-based view (Barney, 1991). This theoretical development has been predominantly driven by qualitative-based studies (Eisenhardt, 1989) and case study analyses (Yin, 1994). While building our analysis, we detected three main periods in which the theoretical development in this stream was substantially determined.

First, during the period of 2000–2006, the relative immaturity of this field of study led scholars to conduct explorative case studies on SE (Thompson, Alvy, & Lees, 2000; Alvord, Brown, & Letts, 2004). By doing so, scholars contributed to the debate by providing definitions and conceptual and empirical models that define the theoretical boundaries of SE (Sullivan Mort, Weerawardena, & Carnegie, 2003). For instance, research has been conducted to investigate the similarities and differences between SE and commercial entrepreneurship (Tan and colleagues, 2005). Moreover, scholars have introduced important seminal theories, such as the theory of entrepreneurial bricolage (Baker & Nelson, 2005).

Such research provided the theoretical basis for the further development of these streams during the period of 2007–2011. Institutional theory informed the concepts of hybrid organizations and dual mission management, which quickly populated the debate following the seminal

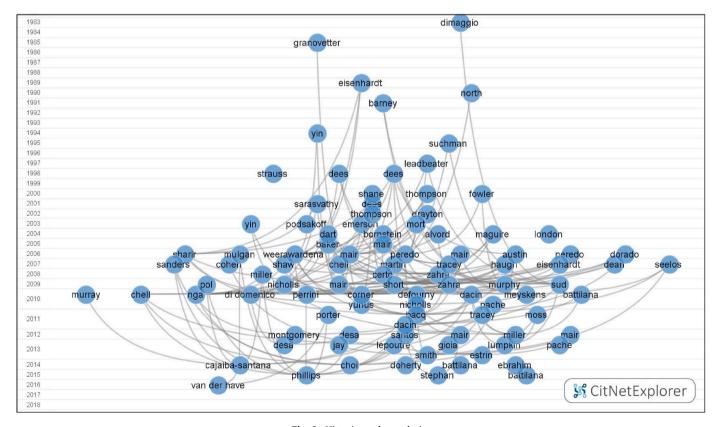


Fig. 2. Historiography analysis.

work of Battilana and colleagues (2010). In this period, resource bricolage theory led to the introduction of an ecosystem perspective into the debate, thereby providing an understanding of the role played by social enterprises in mobilizing or participating in collective efforts for inclusive development (Seelos & Mair, 2007). Finally, the concept of SE has been extended to include environmental concerns, which has led to the stream of sustainable entrepreneurship (Dean & McMullen, 2007; Zahra et al., 2009). Within this cloud of theoretical contributions, there are numerous articles that are focused on innovation and SI processes, which have contributed to defining the relevant concepts, definitions, and impacts on society (Mulgan, 2006; Murray, Caulier-Grice, & Mulgan, 2010).

In the last five years, scholars have strengthened the relationship between SE and SI. In this literature stream, the research has been focused on the SI processes within social enterprises and the fostering of their social value creation (Austin et al., 2016). Moreover, research has been conducted to investigate the extent to which social enterprises contribute to the creation of socially innovative solutions (Cajaiba-Santana, 2014; Phillips et al., 2015). For instance, scholars have documented social enterprises' efforts to enable SI diffusion by shaping their institutional contexts (Mair et al., 2012) or mobilizing network resources (Cui, Pan, Newell, & Cui, 2017; Kickul et al., 2018).

In conclusion, we can observe that knowledge in the SE and SI fields has been developed through explorative and conceptualizing works that have shifted this stream toward substantial theory development. Recently, scholars have focused on conducting literature reviews that organize the extant research to open new research paths. Leveraging this knowledge, we now introduce a map of the structure of its current development through bibliographic coupling.

#### 4.3. Study 3: bibliographic coupling

The coupling analysis reveals seven clusters (Fig. 3). Cluster 2 (13,858) has the greatest number of citations, followed by cluster 3 (12,118), cluster 1 (11,885), cluster 4 (9465), cluster 5 (8451), cluster 6 (6590), and cluster 7 (2844). We present the results of our bibliographic coupling by providing an overview of each cluster that emerged from the 300 most relevant articles, as derived in our analysis.

# 4.3.1. Coupling cluster 1 (red): social innovation creation The 66 articles in cluster 1 are primarily focused on SI. Specifically,

the articles in this cluster are focused on a range of SI catalyzers for unlocking SI. Hlady-Rispal and Servantie (2018) defined SI as "an integral aspect of SE" (p.68), highlighting that social enterprises create value by combining resources in innovative ways. For instance, Cherrier, Goswami, and Ray (2018) investigated social value creation in scenarios characterized by contradictory institutional logics, and they documented that such contexts trigger and stimulate social innovative solutions in a way that addresses wider social problems, beneficiaries, and stakeholders rather than in a way that hinders or constrains the capacity to enact societal change. Recently, Lubberink (2019) proposed an approach to responsible innovation by social enterprises, documenting the role of substantive rights (e.g., freedom, quality) in innovation framing.

# 4.3.2. Coupling cluster 2 (green): organizational hybridity and the enabling of ${\it SI}$

The 61 articles in cluster 2 are primarily empirical and contribute to the literature on hybrid organizations and the enabling of SI. We can identify three main trends in this cluster. The first presents the role of SE in enabling SI solutions. De Silva, Khan, Vorley, and Zeng (2020) documented how social enterprises fill institutional voids and acquire the capabilities for designing SI solutions in developing countries. Cui et al. (2017) provided evidence to support the role of social-driven e-commerce in enabling SI through the mobilization and orchestration of resources to support entrepreneurs' missions. The second section presents articles on the process of creating hybrid and innovative models and the shift from nonprofit organizations to social enterprises (Shepherd, Williams, & Zhao, 2019). Finally, some authors have focused on the tensions related to goals and identity that occur during SI invention and those related to time and knowledge that occur during SI implementation (Dufays, 2019).

#### 4.3.3. Coupling cluster 3 (blue): scaling and dual-mission management

Cluster three contains 51 articles that conceptualize the scaling and dual-mission management of SE. Specifically, Vassallo, Prabhu, Banerjee, and Voola (2019) provided evidence that social enterprises are more likely to scale SIs than are not-profit and for-profit organizations. Second, scholars have documented mission drifts resulting from social business scaling (Siebold, Gunzel-Jensen, & Muller, 2019). For instance, Kannothra, Manning, and Haigh (2018) found that integrating clients and communities into strategies favors gradual growth while preventing

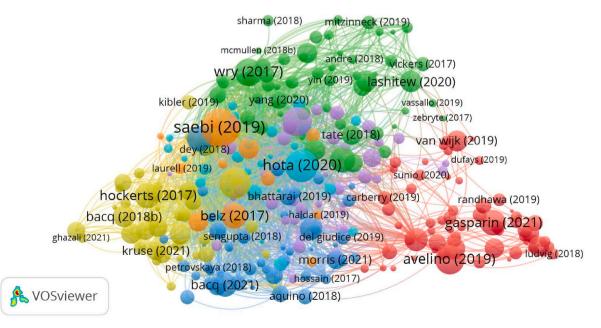


Fig. 3. Coupling analysis.

tensions and mission drift.

#### 4.3.4. Coupling cluster 4 (yellow): multilevel SI and SE antecedents

Cluster four includes 43 articles and mainly contributes to the understanding of the antecedents of SE. Three levels of analysis have been developed by these authors. The first regards the psychological antecedents of SE, such as prosocial and profit motivation, entrepreneurial self-efficacy, compassion, and empathy (Stirzaker, Galloway, Muhonen, & Christopoulos, 2021). In the second level, the availability of resources is highlighted as an antecedent of SI (Kickul et al., 2018). The third level documents interventions that have propagated SI in society and market systems. Ludvig, Sarkki, Weiss, and Živojinović (2021) investigated the implications and impacts that public policies on SI and those of SI on public policy, highlighting the role played by multiple actors in civil society.

#### 4.3.5. Coupling cluster 5 (light blue): ecosystem and SI

The 37 articles included in cluster 5 mainly explore the approaches to acquiring ecosystem resources to facilitate SI implementation. For instance, McMullen (2018) introduced a biological metaphor to describe the interactions of social enterprises with their entrepreneurial ecosystems for capturing key resources and promoting SI processes. Similarly, scholars have focused on the role of social entrepreneurs' personal networks in unlocking SI solutions (Liu, Xiao, Jiang, & Hu, 2021).

#### 4.3.6. Coupling cluster 6 (pink): codesigning SI in marginalized contexts

Cluster 6 has 29 articles that contribute to the literature by highlighting the role of local contexts and actors in the implementation of SI solutions. For instance, Bhatt and Ahmad (2017) examined a developmental venture capital initiative in India and highlighted the importance of understanding locally embedded cultural norms and socioeconomic conditions in designing effective entrepreneurial solutions. Venugopal and Viswanathan (2019) documented a participatory approach in which social enterprises collaborate with local communities to create institutional conditions that favor SI implementation in subsistence marketplaces.

#### 4.3.7. Coupling cluster 7 (orange): sustainable entrepreneurship

Cluster 7 includes only 13 articles on sustainable entrepreneurship. These studies are focused on defining the dimensions of sustainability and their relationships with entrepreneurial orientation, sustainable development, and the capacity to address grand challenges. For instance, Lashitew, Bals, and van Tulder (2020) documented the role of social embeddedness in local communities' judgements regarding the legitimacy of SI.

#### 5. Discussion

While scholars agree that SE and SI have strong commonalities, as both address social needs, the understanding of their interrelations, commonalities and complementarities has not reached consensus. Building upon the findings of cocitation, historiography, and coupling, we address this gap through the mapping of five patterns to provide a common and comprehensive understanding of the theoretical boundaries and relationships between SE and SI (see Fig. 4). The five patterns are documented as follows.

## 5.1. Creating: social innovations are developed within the boundaries of social enterprises

The first pattern presents circumstances in which SI solutions are designed and developed within the boundaries of social enterprises, taking the form of new business models. In this sense, the SI process is considered "an integral aspect of SE" (Hlady-Rispal & Servantie, 2018, p. 68 – coupling, cluster 1). Accordingly, SI is seen as an opportunity for social enterprises to accomplish their social mission while also serving as

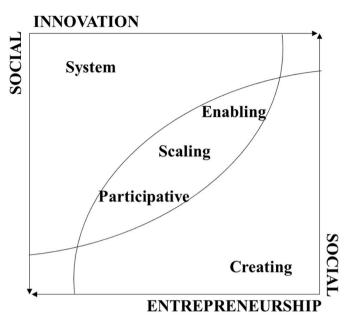


Fig. 4. Framework of the interconnections between SE and SI.

a source of competitive advantages (Cherrier et al., 2018 – coupling, cluster 1). For instance, de Souza João-Roland & Granados, 2020 – cocitation, group 3) mapped "models/tools/management behaviors that are associated with the generation of SI in SEs" (p. 776), documenting standalone practices that have been implemented by social enterprises to create SI solutions.

### 5.2. Enabling: social enterprises harness and enable social innovative solutions

The second pattern frames social enterprises as vehicles that harness SI solutions from the external environment and commit resources for their initial launch in a way that resolves social problems. By doing so, SE empowers SI implementations to overcome obstacles such as high investments, unreliable donations, and resistance from actors whose interests are threatened (De Silva et al., 2020; Cui et al., 2017; Rangan & Gregg, 2019 – coupling, cluster 2). Thus, while SI creation can even occur outside of social enterprise boundaries, SE plays a key role in the translation of that innovation into practice. For instance, Morris et al. (2020 – coupling, cluster 2) documented social enterprise efforts to overcome SI implementation obstacles by attracting and deploying both the financial and nonfinancial resources needed for SI development.

#### 5.3. Scaling: social enterprises diffuse social innovative solutions

The third pattern describes the relationship between SI and SE, in which SI solutions are adapted by social enterprises into scalable models to favor large-scale replication and diffusion in the market (Vassallo et al., 2019 – coupling, cluster 3). Social enterprises distribute and expand SI solutions to increase both their social impact and their business volume (Siebold et al., 2019 – coupling, cluster 3). For instance, Giudici, Combs, Cannatelli, and Smith (2020 – coupling, cluster 3) documented an SI scaling in multiple locations through a system of social franchising whose members shared the same mission.

#### 5.4. Participative: social enterprises participate in collective SI processes

In the fourth pattern, the process of SI occurs at the ecosystem level, where social enterprises can engage with a collective of actors who share the same social purpose (Bhatt & Ahmad, 2017 – coupling, cluster 6). Accordingly, social enterprises do not generate SI solutions as

standalone actors; rather, they participate in a system that generates SI solutions through collective learning and effort (Seelos & Mair, 2007 – cocitation, group 3). For instance, Phillips et al. (2019 – coupling, cluster 5) proposed a SI relationship matrix that explicates the role of stakeholders in supporting the SI process, particularly during the ideation stage.

#### 5.5. System: social innovations are developed by a system of actors

The fifth pattern represents cases in which the SI process "goes beyond mere social entrepreneurship" (Ludvig et al., 2021 – coupling, cluster 4) and can be generated at the system level. Thus, while social enterprises can participate in such efforts, their participation is not required to achieve an SI solution (Cajaiba-Santana, 2014 – cocitation, group 3). For instance, Mollinger-Sahba, Flatau, Schepis, and Purchase (2021 – coupling, cluster 6) documented successful strategic alliances between state, capital, and civil society that produced public good SIs that were diffused through nonmarket mechanisms.

These five patterns show that the appropriate question is not whether "social innovation is [or] not social entrepreneurship" (Morris, Santos, and Kuratko, 2021, pp. 1093) but rather when, how, and to what extent they are interrelated. By addressing these questions, we propose a new understanding of the interconnectivity between SE and SI, thereby offering important contributions to the extant literature.

First, our work provides a novel framework that represents the different degrees of SE and SI integration. While several conceptual frameworks have been developed to independently describe SI and SE (Kaushik et al., 2023), other scholars have begun to investigate the intersections between them (Phillips et al., 2015). Until now, however, a framework that conceptually represents their relationship has been lacking. Accordingly, our article addresses an important gap in the literature examining the crossroads of SE and SI by clearly demarcating the theoretical boundaries that separates the completion of SE and the commencement of SI, and vice versa. This framework can serve as an important contribution to the research community. It can reduce vagueness in the academic debate regarding two important research streams by clearly identifying their theoretical relationships. This can help scholars theoretically position their research by providing a spectrum of the embedded relationships between SE and SI. Moreover, it can stimulate cross-stream research favoring theoretical contamination, which can lead to important discoveries and advancements in each of these fields.

Second, our bibliometric analysis offers a comprehensive understanding of the trends and clusters in the SE and SI literature, revealing new potential theoretical complementarities, connections, and interconnections. Specifically, our historiography highlights the fact that the foundational articles in these streams are dominated by empirical works, mainly qualitative studies, and are characterized by an explorative approach. It has only been since 2011 that scholars have advanced such research by focusing on the conceptual articles concerning SE and SI (Bacq & Janssen, 2011). However, this approach is counterintuitive; new theoretical streams are typically initiated through an engagement with conceptual works (for a similar argument, see Kouropalatis, Giudici, & Acar, 2019, p. 15). Thus, this atypical theoretical evolution may be partially explained by the large expansion of relevant contributions that occurred between 2005 and 2011. This posed the need to organize the extant literature and define future research directions, thereby paving the way for conceptual articles. Moreover, in our historiography, we observe that SI recently quickly emerged, in a nearly parallel fashion, along with the SE literature. This may represent a historical convergence and the beginning of a new trend in research on the intersection of SI and SE.

Our third contribution concerns methodology. In contrast to the previous bibliometric analyses of the literature on the intersection of two fields, we used a relatively more informative method by combining three bibliometric approaches, namely, historiography, document

cocitation, and bibliographic coupling (Zupic & Čater, 2015). This helped us overcome the limitations of the existing bibliometric reviews of both SE and SI. Indeed, most analyses have been limited to mapping the theoretical evolution of these topics by measuring the maturity of SE research (Sassmannshausen and Volkmann, 2018); some authors have used co-citation analysis (Hota et al., 2020) or bibliographic coupling (Cancino et al., 2023; Secundo, Ndou, Del Vecchio, & De Pascale, 2020; Escobar et al., 2023), while others have combined these methods (Anand et al., 2021). Accordingly, through the use of all three approaches, we were able to track the relevant theoretical trends and clusters.

#### 6. Limitations

As with any research, our study has limitations. The first is a well-known limitation concerning bibliometric analyses; it is not possible to use this approach to deduce why specific scientific publications were cited purely from their citations. This might be due to the work being useful for the study but also possibly because the authors wanted to refute claims that had been made in the cited publication. The second limitation concerns our search parameters. We limited the sample of analyzed documents to those found in the Web of Science database. While including only these particular documents increases the probability of their having gone through a rigorous peer review process, we may have missed some publications in journals that were not included in the index or had been published as book chapters.

#### 6.1. Research agenda

Building on our discussion, we identified two main research areas that can foster the development of the study of the intersection between SE and SI (Table 2). To further strengthen our research agenda, we also added a list of research questions that were included in the most-cited articles in the CCA-R.  $^6$ 

#### 6.2. Opportunities for the theoretical integration of SE and SI

In the first of these research areas, our focus is on questions that can stimulate a cross-pollination of knowledge between the SE and SI literatures to further advance the theoretical intersections, complementarities, and implications of these theories.

#### 6.2.1. Impact of SI creation on SE

Knowledge of the impacts of SI on both its beneficiaries and on society at large has advanced considerably in recent years (Mollinger-Sahba et al., 2021); however, few scholars have focused on its internal impact on SE. First, research has documented the importance of considering the SI process not as a fixed or predictable path to follow but rather as a zig-zag navigation that requires continuous pivoting as innovations change in unexpected ways (Rangan & Gregg, 2019). However, knowledge of how unexpected changes influence social enterprises, as well as how they are managed by them, remains limited. This can create potential theoretical connections with entrepreneurship approaches. In particular, research can be conducted to investigate how and under which circumstances social entrepreneurs prioritize control (e.g., effectuation) over the prediction (e.g., causation) of future contingencies in SI processes.

Second, research can be focused on the impacts of SI outcomes on social enterprises' decision making (Kaushik & Tewari, 2023). For instance, while scholars have encouraged social enterprises to create SI solutions to gain competitive advantages, financial losses or internal tensions resulting from SI failures can hinder new investments. Further explorations of these dynamics can advance the debate regarding the dark sides or risks of SI creation for social enterprises and their impacts

<sup>&</sup>lt;sup>6</sup> A detailed table by request to the authors - Supplement material, Table 5.

Table 2
Future research directions

Research areas	Possible research questions
Impact of social innovation creation on social entrepreneurship	•How are unexpected changes in social innovation processes managed by social enterprises?
Orchestration by social enterprises to enable social innovation	How do social innovations outcomes influence social entrepreneurial decisions regarding further processing innovations?     How do social enterprises orchestrate multiple social innovations in the ecosystem?
	<ul> <li>How are multiple partnerships orchestrated by social enterprises to pursue social innovations?</li> </ul>
Scaling of social innovations beyond the standardized and adaptation approaches	•How, when, and under what circumstances is standardization preferable to adaptation in scaling social innovations?
Exploring network dynamics to promote a participated social innovation process	•How do tribal and ethnical dynamics within community-based enterprises influence cooperation mechanisms with social enterprises in the pursuit of social innovations?
Extending the timespan analysis to include systemic social innovation	How and when are social innovative solutions promoted in the public sector then further developed, changed, and scaled by social enterprises?     How do social innovative solutions created by social enterprises influence market systems toward more inclusive
Toward a new theoretical construct	access to resources?  •Does the merging of social innovation and social entrepreneurship represent a new theoretical construct?
Geographical comparison	•How does the sub-Saharan context influence the social innovation processes promoted by social enterprises? How does this differ from that of developed or other developing countries?

on the next generation of innovations. By building on comparative case studies, scholars can investigate similarities and differences between successful and unsuccessful SI solutions and their impacts on social enterprises.

#### 6.2.2. Orchestration of social enterprises to enable SI

The debate around where the locus of innovation lies, whether within or beyond social enterprises, has not reached a consensus. Thus, further investigations into how SIs interact, inform, and influence each other are called for. To advance this research path, scholars should focus on actors that manage multiple rather than single innovations to unveil the synergies and relationships among SI solutions. In the current literature, research has too often investigated a single innovation process within an organization, while very few studies have analyzed how organizations orchestrate multiple SIs (Giudici, Reinmoeller, & Ravasi, 2018). This offers an important opportunity for moving beyond a clustered view of SI processes while becoming more open to dynamism. This is key to achieving further progress in the theoretical relationships between SEs and SI, which highlights, on the one hand, the role of orchestrators in bridging SI solutions and, on the other hand, the dynamics, natures, and outcomes of a mix of variegated SI processes that are promoted by diverse actors. As a result, studies in this stream can contribute to the further advancement of our knowledge concerning the processes for enabling SI implementation (Morris et al., 2021). This stream could also benefit from an investigation of the socially embedded mechanisms that support the cocreation of social value through the engagement of multilevel actors, ranging from communities to multinationals, for the tackling of grand challenges (George, Howard-Grenville, Joshi, & Tihanyi, 2016).

#### 6.2.3. Scaling SI beyond the standardized and adaptation approaches

Scholars have highlighted the importance of scaling SI to enhance both the social impact and financial sustainability of social enterprises. However, the extant research still presents contrasting findings in regard to the processes and approaches of scaling. We can identify at least two schools of thought that dominate this debate: one suggests the replication of standardized (Chliova & Ringov, 2017) while the other encourages the adaptation of SI solutions to local contexts (Corner & Kearins, 2021). A comparative case study across countries can advance this debate by exploring how, when, and under which circumstances standardization is preferable over adaptation, and vice versa. Moreover, a research inquiry can be conducted to focus on the extent of adaptation versus standardization within the scaling process, thereby potentially creating a spectrum of alternatives. Merging rather than separating these two scaling approaches can have important theoretical and practical implications and offer an opportunity for the further integration of the SI and SE literature.

#### 6.2.4. Exploring network dynamics to promote a participatory SI process

Scholars have suggested that SI processes inherently require the intermingling and exchange of heterogeneous knowledge and expertise to be effective. Specifically, studies have documented the key role played by local communities in fostering SI solutions in developing countries (Bhatt & Ahmad, 2017). However, engaging with local communities and codesigning SI are not always straightforward processes because cultural and historical differences can create tensions and conflicts (Bacq, Hertel, & Lumpkin, 2022). Thus, further explorations of the tribal and ethnic cultural dynamics within community-based enterprises that affect the cooperation mechanisms with social enterprises is called for. Studies in this field can have important theoretical implications for shifting the role of communities from disadvantaged groups to key partners as well as for shedding light on the empowerment of minorities from a more agentic perspective.

#### 6.2.5. Extended timespan analysis of systemic SI

While the extant research has often been focused on one specific phase of SI, in our work, we call for more longitudinal studies that map its entire lifetime cycle. A longer time span can provide important insights into how innovations propagate in society and market systems. This can further advance our knowledge of SI lifetime phases, challenges, and evolutions. To strengthen the theoretical relationships between SE and SI, scholars can investigate the role of social enterprises in sustaining their implementation and growth over time. On the one hand, studies can investigate how and when SI solutions that are promoted in the public sector are further developed, changed, and scaled by social enterprises. On the other hand, research can explore how SI solutions designed by social enterprises influence the market system toward inclusive access to resources.

#### 6.2.6. Toward a new theoretical construct

Our historiography reveals a recent convergence between SI and SE research. This may represent a historical convergence at the intersection of SI and SE that represents a new trend in the research. As documented in the analysis section, some of the SE definitions include the concept of innovation. For instance, Alvord et al., (2004) defined SE as an "innovative solution to immediate social problems" (p. 262); similarly, Yunus, (2008) stated that "any innovative initiative to help people may be described as social entrepreneurship" (p.32). However, the role of SI is still underrepresented and underdeveloped in the current definitions of SE. This calls for the development of a theoretical construct and a definition that serves to integrates SI with SE. This can lead to a 'third' independent research route that examines the merging of these research streams. Recently, a novel theoretical construct has emerged from the convergence of two theoretical streams, namely, ethical entrepreneurship, which comes from the convergence of entrepreneurship and ethics (see Vallaster et al., 2019). Corporate SE, which is a convergence

between SE and corporate governance (Hemingway, 2005), is another such example, which may extend the theoretical development in this field beyond the mere coexistence of SI and SE.

#### 6.3. Opportunities for extending the academic literature

Our cocitation and coupling analyses reveal a high number of explorations in the developing economy context; Southeast Asian and Central American studies prevail in our sample. This reveals a strong bias toward African countries. However, scholars have recently attempted to investigate such phenomena in Africa. For example, a seminal work by Rivera-Santos, Holt, Littlewood, and Kolk (2015), "Social entrepreneurship in sub-Saharan Africa", and a recent work on SI by Chandra, Shang, and Mair (2021) demonstrate a growing academic interest in Africa. In this academic dialog, scholars have already contributed to the understanding of the intersection between SE and SI within the African context; for instance, the findings in "Inclusive business ... for enabling social innovation" by Lashitew et al. (2020) point to new research paths in this direction. Therefore, such a context is promising for future research, facilitating the adaptation and geographically compensation for such biases in the extant research.

#### 6.3.1. Common journal outlets

When new theoretical streams emerge in the literature, the establishment of specialized academic communities follows. Thus, academic journals tend to privilege specialization over comprehensiveness, thereby increasing the risks of knowledge duplication rather than fostering exchange and accumulation. Our bibliometric analysis reveals that research on SI is mainly conducted for specific academic outlets, which are generally overlooked by SE scholars, and vice versa. Thus, future research can consider targeting journals that are not within the traditional theoretical perimeter and expanding and integrating knowledge production across more varied groups of authors (Argyropoulou, Soderquist, & Ioannou, 2019). This direction could facilitate multidisciplinary studies across the fields of entrepreneurship and innovation, including for instance, psychology, human resources, and strategy, which could each benefit from the further cross-pollination of these two theories.

#### 7. Conclusions

In this article, our aim was to map the scientific structure positioned at the crossroads of the SE and SI literature by applying a combination of three bibliometric techniques. We proposed a research agenda that offers several opportunities for further theoretical developments to advance the literature on these domains (Robinson et al., 2022).

#### CRediT authorship contribution statement

Andrea Carlo Maria Sottini: Conceptualization, Formal analysis, Writing – original draft, Writing – review & editing, Visualization. Ivan Zupic: Data curation, Methodology, Software, Supervision, Conceptualization, Writing – original draft. Alessandro Giudici: Conceptualization, Supervision, Validation, Visualization, Formal analysis, Funding acquisition.

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#### Appendix A. Supplementary data

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