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MANAGING THE HYBRIDITY TRADE-OFF

An empirical analysis of Impact Venturing in Italy

Doctoral Dissertation of: VERONICA CHIODO

Supervisor: PROF. MARIO CALDERINI Tutor: PROF. MARIKA ARENA Discussant: PROF. PAOLA GARRONE The Chair of the Doctoral Program: PROF. PAOLO TRUCCO

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ABSTRACT

The dissertation consists of a collection of four papers that address different types of managerial challenges emerging from hybridity. The red thread of the collection is the analysis of how the firm's managerial challenges translate when the organization embraces a hybrid paradigm, which blends the generation of social and commercial value. Specifically, the issue is investigated in two domains of strategic choices for the company, growth and access to finance.

An organization is defined as a *hybrid* when it shows the combination of multiple organizational identities, organizational forms or different types of institutional logic (Battilana, Lee, Walker, & Dorsey, 2012; Haigh & Hoffman, 2014; Schroer & Jager, 2014; Skelcher & Smith, 2015). Within the hybridity realm, we find the Social Venture (SV) (Doherty, Haugh, & Lyon, 2014), an entrepreneurial entity whose primary aim is to provide solutions to the wicked problems – such as ageing, climate change, refugee's crisis – leveraging on forms of entrepreneurship and trading (Margiono, Zolin, & Chang, 2018; Defourny and Nyssen, 2017). The disruptive characteristic of this new paradigm is "the ability to integrate a business model to the provision of a social need" (Hynes, 2009: 114); as a result, in the same business model, values traditionally pertaining to not for profit sector blends with the creation of economic value traditionally implemented by for-profit companies (Austin, Stevenson, & Wei-Skillern, 2006; Grassl, 2012; Seibel, 2015). The current trends suggest that it is very likely that in the near future every company worldwide will need to understand how to implement a growth process that integrates social impact and financial return (Schwab, Gold, Kunz, & Reiner, 2017). Indeed, CSR activities are becoming part of the core business of corporations (Arena, Azzone, & Mapelli, 2018) and the market of sustainable investments growing at an impressive pace.

Scale is a major challenge for hybrid organizations (Battilana & Dorado, 2010; Kannothra, Manning, & Haigh, 2018; Palomares-Aguirre, Barnett, Layrisse, & Husted, 2018; Seelos & Mair, 2014) which aim to generate systemic change in society. Moreover, the concept of growth in hybrid organizations should be framed with a broader scope than the mere changesize perspective prevalent in the entrepreneurship literature. When the goal is increasing the level of fulfillment of a social need, growth might also occur outside the organization, without modifying its configuration, but just increasing the outcomes it produces.

The second domain where I decided to test the assumption of the hybridity trade-off is the access to finance, which is usually pinpointed as one of the most pressing challenges for ventures (Davies, Haugh, & Chambers, 2018; Gill & Mand, 2013; Gill & Nahum Biger, 2013). The combination of weaker financial institutions following the financial crisis, disruptive disintermediation-enabling technology and a socioeconomic as well as cultural shifts is challenging the paradigm of how finance is provisioned. A novel hybrid approach to finance has emerged, labelled Social Impact Investments (SII). SII is a strategy of asset allocation, which combines financial profitability with a measurable social and environmental impact.

Both the literature on SVs and hybrid organization are still young and growing (Doherty et al., 2014). The influence of social value generation on economic sustainability has attracted the attention of many organizational scholars (Battilana & Dorado, 2010). However, so far, they have conceived the question of hybridity in terms of tensions (Kannothra et al., 2018; Siegner, Pinkse, & Panwar, 2018; Smith, Gonin, & Besharov, 2013) and paradoxes (Smith, Besharov, Wessels, & Chertok, 2012). Just recently the literature (Wry & Zhao, 2018) has shifted the focus on the actual trade-offs underlying those tensions and affecting the SV's strategies and processes. Moving to the application domains, any study has adequately addressed the question of the existence of a potential trade-off and its managerial implications in growth and access to finance.

Considering these gaps, the objective of the Ph.D. research is to understand how growth and access to finance are affected by the co-existence of the commercial logic and the driver of increasing the positive benefits they create for the society.

The research problem is investigated in the empirical setting of the Italian Impact Venturing. A mixed methodology based on statistical techniques and thematic analysis is employed to analyze the data due to the exploratory nature of the topic.

Paper 1 explores the issue of a potential trade-off between social and commercial logic within the growth process of the organizations. The identified quantitative relationship between social and commercial growth confirms the relevance of the first research objective; moreover, it provides a conceptualization of how to measure social growth, opening the opportunity to undertake further quantitative analyses. It also considers a broad range of growth strategies, underlining which ones more likely bring to social and commercial growth; and, lastly, it tries to link the strategies with the arrangement in terms of the business model. This work feeds the empirical heterogeneity of SVs and hybrid organizations literature, which is dominated by a case study approach. Second, it clarifies the concept of scaling by providing a more precise way to conceptualize it and going beyond the prevalent descriptive approach using so far. Then, by investigating hybrid growth modes, it answers the call by prominent scholars in the firm's growth literature.

Paper 2 bridges the two domains where the issue of the hybridity trade-off is investigated, growth and access to finance. Indeed, I analyzed whether the social mission makes

easier or more difficult the access to external finance for start-ups, by comparing those obstacles faced by high-tech start-ups with those typical of SVs. It again expands the growing literature on SVs by addressing a challenge, the access to financial resources, that scholars pinpoint as one of the most pressing for SVs (Doherty et al., 2014).

Both Paper 3 and Paper 4 contributes to the literature on social impact investing (SII) and, specifically, Paper 4 tries also to meet the need of demonstrating a real demand of social impact investments (Lyon, 2016; Lyon & Baldock, 2014), which in turn would increase the legitimacy of this market.

Paper 3 demonstrates that SII is developing at different speeds worldwide. The analysis identifies a group of road runners, where SII has established firstly and mostly. It places the Italian SII market in the "chasers" countries, where *"the practices are still at an experimental dimension, to prove SII feasibility and functioning*". In doing so, it paves the way for the analysis done in the following and last essay. Indeed, it demonstrates that the functioning of the SII market deserves further investigation because it is still in an experimental phase. This result seems to provide a partial answer of the questions posited as the pay-off of Paper 2: SII might represent a solution able to solve the drawbacks of institutional financial sources in funding the growth of SVs. Therefore, in Paper 4, I decided to go in-depth in understanding which arrangement of SII industry in terms of practices might meet the financial needs of SVs.

In Paper 4, relying on the suggestions provided by the scholars in the ecosystem literature, I identified the challenges hampering the strategic alignment in the SII Italian industry. This essay follows the direction proposed by Adner (2017) that considers the strategy of the ecosystem as the effort of the members to find a satisfactory alignment in terms of roles and practices. In this case, the results of applying the hybrid paradigm contribute to the literature on ecosystems by bringing the attention to the intangible infrastructure needed by the members of the ecosystem (represented by capacity building and instruments to assess the social performance). Moreover, it tries to fill the gap about the nature of relationships in the ecosystem by underlining that social impact investors employ a collaborative approach in their effort to establish this market.

Despite the attempt to use the greatest carefulness and rigor in developing the research, the thesis has some limitations, which, however, might turn into interesting lines of further research. Although the current research focused on one national context, the methodology applied is straightforward and replication studies in other geographies, and the related comparative analyses, are a potential avenue of future research. Other elements which might lead to interesting comparisons are the legal forms of SVs and the institutional factors of the environment where the organization operates. The last two essays suffer the limitations related to qualitative research in terms of potential subjectivity of the results. In this respect, the use of data from multiple sources helps to lower the risk. Lastly, none of the works was set to catch the perspective of the public sector in the social economy. However, it also emerges the need to develop an enabling infrastructure to support both SVs and social impact investors and, so, analyses focusing on the role of the public institutions are welcome.

In conclusion, the collection of papers tested the likelihood of implementing a blended value proposition integrating the social logic and the commercial logic in one single business model. It tries to understand whether it causes situations of trade-off not experience by profitmaximizing ventures and how they can be overcome. This assumption might represent the most radical step in the discourse which challenges the neoclassical economic and utilitarian theories where economic transactions are just minimally affected by social relations (Granovetter, 1985). Therefore, I hope that the findings of this collection help the theoretical debate to continue along this path.

1. INTRODUCTION

1.1 Hybridity as the new "mantra" of the business sector

The hybridity paradigm is gaining centrality both in the academic debate and practice. Indeed, since 2003, when Emerson introduced the blended value proposition, which was, then, recalled by Porter and Kramer in 2011, the commitment to generating social value while producing economic returns has increasingly spread in the business sector (Bocken, Fil, & Prabhu, 2016; Gao & Bansal, 2013; Schwab, Gold, Kunz, & Reiner, 2017). For instance, we are witnessing an evolution of CSR activities from side business unit to the core business of the company (Arena, Azzone, & Mapelli, 2018) or the sustainable investment market growing at an impressive pace (Castellas, Ormiston, & Findlay, 2018).

An organization is defined as a *hybrid* when it shows the combination of multiple organizational identities, organizational forms or different types of institutional logics (Battilana, Lee, Walker, & Dorsey, 2012; Haigh & Hoffman, 2014; Schroer & Jager, 2014; Skelcher & Smith, 2015) Within the hybridity realm, we find the social venture (SV) (Doherty, Haugh, & Lyon, 2014), an entrepreneurial entity whose primary aim is to provide solutions to the wicked problems - such as ageing, climate change, refugee's crisis - leveraging on forms of entrepreneurship and trading (Margiono, Zolin, & Chang, 2018; Defourny & Nyssen, 2017). Mixing commercial activities and social purpose, SVs are characterized by the co-existence of different principles: in the same business model, values traditionally pertaining to not for profit sector blends with the creation of economic value traditionally held by profit-maximizing companies (Austin, Stevenson, & Wei-Skillern, 2006; Grassl, 2012; Seibel, 2015). Typical examples of SVs are work integration social enterprises, ventures that serve people at the base of the pyramid, fair trade organizations (Battilana, Sengul, Pache, & Model, 2015; Hockerts, 2015; Lee Rhodes & Donnelly-Cox, 2014). The hybrid nature involves that they are caught between conflicting drivers of action and stakeholders' interests and this introduces further levels of complexity in establishing and managing those organizations, leading to the creation of novel managerial dilemmas (Bruneel, Moray, Stevens, Fassin, 2016; Pache & Santos, 2010; Siegner, Pinkse, & Panwar, 2018; Smith, Gonin, & Besharov, 2013).

1.2 The concept of growth in hybrid organizations

The goal of SVs is to reach a systemic change in society to solve the societal challenges addressing their root causes (Moore, Riddell, & Vocisano, 2015). However, they are not immune to critiques (Ganz, Kay, & Spicer, 2018; McMullen & Warnick, 2016; Nicholls, 2010; Powell,

Gillett, & Doherty, 2019). Notable, the skeptics of SVs claim that there is still little evidence about the social performances of these organizations (Zhao & Lounsbury, 2016) and rarely successful SVs have reached the scale to meet the magnitude of the social problems (Bocken et al., 2016; Teasdale, Lyon, & Baldock, 2013). Therefore, scale remains a major challenge for hybrid organizations (Battilana & Dorado, 2010; Kannothra et al., 2018; Palomares-Aguirre, Barnett, Layrisse, & Husted, 2018; Seelos & Mair, 2014).

Growth in the business sector has been mainly conceptualized as a change in size (Dobbs & Hamilton, 2007; Evans, 1987; Lockett, Wiklund, Davidsson, & Girma, 2011; Schwab et al., 2017). Indeed, almost all models in the entrepreneurship literature frame growth as "as sheer volume expansion of existing activities" (Davidsson, Achtenhagen, & Naldi, 2010: 116). This narrow understanding led to a dominant focus on growth an "increase in amount" rather than an "internal process of development".

However, the concept of growth itself becomes less straightforward when referring to SVs because of their hybridity (Bocken et al., 2016; Davies, Haugh, & Chambers, 2018; Dees, 2008; Grassl, 2012; Kannothra et al., 2018). Indeed, hybrid organizations experience a twofold tension to grow (Smith et al., 2013; Smith & Lewis, 2011; Tracey, Phillips, & Jarvis, 2011). The commercial logic originates an impulse to dimensional growth, where growth is conceptualized as growth in the size of the organization (Evans, 1987; Lockett et al., 2011; Schwab et al., 2017); social welfare logic determines an impulse to increase the social value created, including strategies that are not driven by the same principles of business growth. Therefore, the hybrid nature might lead to the emergence of trade-off situations where the growth of the business activities and the increase of social impact are not aligned.

In the discourse on social entrepreneurship (Bloom & Chatterji, 2009; Bloom & Smith, 2010; Bradach, 2003; Desa & Koch, 2014; Lyon & Fernandez, 2012; Weber, Kröger, & Lambrich, 2012), the growth process of SVs is always referred to as "scaling social impact", but a commonly accepted definition of what it is has yet to emerge (Scheuerle & Schmitz, 2016). In the 90s', the literature about non-profit and non-governmental organizations (Edwards & Hulme, 1992; Uvin & Miller, 1996) started to envision the opportunity of growing the outcomes generated by the organization without making it larger (Uvin, Jain, & Brown, 2000). Later, many studies (Bloom & Dees, 2008; Bradach, 2010; Clark, Massarsky, Schweitzer Raben, & Worsham, 2012; Davies & Simon, 2013; Lyon & Fernandez, 2012; Waitzer & Roshan, 2011) established a notion of growth as an increase in "the outcomes the organization has generated beyond just the organization itself" (Clark, 2012: 5). Thus, to generate more social value, SVs can use the same strategies of conventional enterprises by growing the business, expanding markets and

reaching economies of scale; or they can exploit different strategies that do not imply an increased in the size of the organization, such as replication, knowledge transfer or advocacy. However, the academic studies which address these new mechanisms of scaling (Alvord, Brown, & Letts, 2004; Dees, Anderson, & Wei-skillern, 2004; Edwards & Hulme, 1992; Lyon & Fernandez, 2012; Mulgan, Halkett, & Sanders, 2007; Uvin et al., 2000; Westley & Antadze, 2010) are few (Bocken et al., 2016).

1.2. The value shift of the traditional financial paradigm

The hybrid approach is also affecting the financial sector. The combination of weaker financial institutions following the financial crisis, disruptive disintermediation-enabling technology and a socio-economic as well as cultural shifts is challenging the paradigm of how finance is provisioned. Increasingly new values, beyond profit maximization, are driving individuals' financial decisions (Roundy, Holzhauer, & Dai, 2017; Weber, 2016). Even though blended strategies of capital allocation cannot be traced back, in 2007, the Rockefeller Foundation coined the term Social Impact Investments (SII). It refers to a strategy of asset allocation that intentionally finances projects that combine a measurable social and environmental impact along with economic sustainability (Höchstädter & Scheck, 2015; Weber, 2016). Begun as some isolated and uncoordinated experiments, SII is gradually evolving and sometimes it is even pinpointed as a market niche. The magnitude of the phenomenon is still small if compared to the mainstream industry; although, the growth rate and the hype around this phenomenon are impressive. The last release of the EUROSIF research¹ reports a European market for SII of €108 billion assets under management (AUM) while the GIIN survey (Mudaliar, Bass, & Dithrich, 2018) estimates a global market of USD 228.1 billion AUM. Moreover, the social impact investment market has grown by 52% in the last six years¹.

However, although the potential of SII on paper is widely advocated, the effectiveness of this approach is still far to be proven (Lyons & Kickul, 2013; Martin, 2016). Furthermore, the research on SII has been so far dominated by practitioners and the few academic studies - 57 journal articles published between 2005 and 2017 (Agrawal & Hockerts, 2019) - are mainly descriptive (Dagger & Nicholls, 2016). This paucity of literature is quite surprising given the revolution implied by the SII approach. Indeed, it proposes to reshape the fundamental principle of financial transaction, i.e. profit maximization, adding on the top of that the

¹ EUROPEAN SRI STUDY 2018

generation of a positive benefit for the community. The hybridization of profits and social value might turn upside down the conventional "rules of the game", in terms of actors' production function, strategies, and relationships. Therefore, the challenges that are hampering the development of SII market will be analyzed in Paper three and four.

1.3 Structure of the collection

The dissertation is structured into four main sections, following this introduction, and the Annexes, where the reader can find the full version of the essays of this collection.

The introduction presented the crucial concepts and the reasoning underpinning the collection. In section 2, I outline the research problem addressed by the current work and, through a selective literature review, I underline the gaps in the literature it wants to fill.

Section 3 outlines the mixed methodology implemented to collect and analyze the data, which inform the research objectives of the study.

Section 4 describes the rationale behind the collection and how each paper contributes to the research objectives. It also contains an overview of the four papers. For each of them, I draft a table, which summarizes the characteristics of the paper and the status in the route to publication. Following each table, I extensively present the objectives, the research design and results of each of them.

In Section 5, I discuss the collection's results and remark the value of the findings for scholars, professionals, and policy-makers. Lastly, in Chapter 6, I explain the limitations of the study and how they open new avenues of research.

2. RESEARCH PROBLEM AND ADDRESSED RESEARCH OBJECTIVES

Both the literature on SVs and hybrid organization are still young and growing (Doherty et al., 2014). The influence of social value generation on economic sustainability has attracted the attention of many organizational scholars (Battilana & Dorado, 2010). However, so far, they have framed the question of hybridity analyzing those potential tensions that arise when the organization has to deal with conflicting types of logic imposed by stakeholders with contrasting expectations (Battilana et al., 2015; Besharov & Smith, 2014; Mason & Doherty, 2016; Smith et al., 2013; Smith & Lewis, 2011). Consequently, just recently the literature (Wry & Zhao, 2018) has shifted the focus on the actual trade-offs underlying those tensions and affecting the SV's strategies and processes.

Moving to the application domains of growth and finance, I identified several gaps in the sectorspecific and mainstream literature that are worthy of being addressed.

As a legacy of the dominant *change-in size perspective*, scholars of firm's growth emphasize the lack of studies attempting to analyze how firm grow, focusing on growth as a process (Achtenhagen, Naldi, & Melin, 2010; Gupta, Guha, & Krishnaswami, 2013; Leitch, Hill, & Neergaard, 2010; McKelvie & Wiklund, 2010). In fact, entrepreneurship literature has devoted more attention to understand the determinants of growth, why some ventures grow more than others, to measure new venture's growth and compare growth rates (Achtenhagen, Brunninge, & Melin, 2017; Achtenhagen et al., 2010). Also, current research on firms' growth is stuck on investigating two growth modes, organic growth and growth by acquisitions (Achtenhagen et al., 2017).

The literature on scaling SVs is still scarce and misses strong empirical evidence (Scheuerle & Schmitz, 2016). Few studies (Bocken et al., 2016; Dobson, Boone, Andries, & Daou, 2018; El Ebrashi, 2018; Mendoza-Abarca & Gras, 2017; Tasavori, Kwong, & Pruthi, 2018) try to analyze the firm's growth using the lens of hybridity and any of them has adequately addressed the question of the existence of a potential trade-off and its managerial implications.

Furthermore, the literature on funding hybrid organizations acknowledges that SVs experience several barriers in getting funds from commercial sources (Achleitner & Spiess-Knafl, 2014; Bugg-Levine, Kogut, & Kulatilaka, 2012; Castellas et al., 2018; Fedele & Miniaci, 2010; Hazenberg, Seddon, & Denny, 2015; Lyon, 2016; Lyon & Baldock, 2014; Lyons & Kickul, 2013; Spiess-Knafl & Aschari-Lincon, 2015); though, scholars did not identify which are the causes of these obstacles and which financial instruments are the most suitable to address their financial needs.

Therefore, the aim of this research is to test the idea that the co-existence of different drivers of action in the same business model generates a trade-off situation where the SV cannot pursue at the same time the strategy suggested by the social logic and that suggested by the commercial logic (Alberti & Varon Garrido, 2017; Siegner et al., 2018; Van der Byl & Slawinski, 2015).

Considering these gaps, the objective of the PhD research is to understand how *firm's growth* and access to finance are affected by the co-existence of the commercial logic and the driver of increasing the positive benefits they create for the society.

To address this research objective, first, we need to understand whether the processes of generation of social and economic value are somehow correlated and, second, which functions and competencies are affected by this relationship.

This can be translated into the following objectives that are investigated in Paper 1.

(a.1) Identify the trade-offs emerging from the tensions between the competing drivers – size and scale – during the growth process.

(a.2) Identify specific configurations related to these trade-offs.

The second assumption is that the hybrid nature might raise further obstacles in accessing the sources of financial capital, which are commonly exploited by for profit companies.

Therefore, the third objective of the research addressed the relationship between the access to financial resources and the presence of a hybrid mission and it is stated as follows:

(b.1) Investigate whether and how financial resources are a key factor in mitigating these emerging trade-offs.

Paper 2 reveals that the common financial institutional solutions are not enough to support hybrid ventures. However, a breed of financiers has started to show interest in this new type of social ventures and a novel approach to finance has emerged, labelled Social Impact Investing (SII). SII is a strategy of asset allocation, which combines financial sustainability with a measurable social and environmental impact.

Hence, the last part of the study focuses on *understanding the effectiveness of the solutions* proposed by social impact investors in addressing the challenges that the hybrid nature raises in accessing to external sources of capital (b.2).

3. DESIGN OF THE RESEARCH

To accomplish the research objectives presented in Section 2, I rely on a mixed research methodology. I decided to investigate the topic using Italian Impact Venturing as the empirical setting. The choice to focus on one national context is related to the nature of social entrepreneurship that is highly context-dependent.

3.1 Empirical setting

The empirical setting of the present research is the Italian Impact Venturing. With this term, I refer to all organizations that implement a blended value approach, generating positive value for the entire society alongside being economically sustainable. The Italian Impact Venturing has a lack of adequate discussion in the academic literature, while the majority of the research focuses on US and UK or developing countries (Agrawal & Hockerts, 2019; Michelucci, 2017; Rizzello, Migliazza, Carè, & Trotta, 2015). Social venturing in Italy, however, has deep roots. For example, the first law (Legge Basevi) that disciplined a form of entrepreneurship with a social aim dates back to 1950's. Therefore, Italian impact venturing consists of a breed of private entities with significant experience in providing social services. However, the profile of these ventures in terms of economic sustainability is, instead, undertaking an evolution: Italy is one of the few countries worldwide to have released a specific piece of law (Legislative Decree 112/2017) that regulates social ventures, also including elements able to boost their economic sustainability. Indeed, any form of private organization, whether for profit or otherwise, may be a social venture under the Italian law; besides, unlike not-for-profit organizations, they are allowed to distribute a capped level of profits to shareholders and get equity investments. Furthermore, since 2013, when the Italian NAB of the G8 Social Impact Investing Taskforce was established, the interest towards impact economy organizations has also spread in the mainstream profit-maximizing sector and the number of actors involved has increased a lot.

Therefore, the research is based on primary data on social ventures and social impact investors in Italy.

Social ventures have been identified as those registered according to three different laws: the Law 381/1991 that regulates the legal form of social cooperatives; the Legislative Decree 155/2006 that disciplines the label of "ex lege social enterprises" (SEs); and the Legislative Decree 179/2002 that establishes the label of "start-up innovative a vocazione sociale" (SIAVs). The three laws are compliant with the definition of social ventures because they imply a social mission lock for the organization, so the social orientation is mandatorily required and verified; and they perform

commercial activities, in some cases under the constraint of reinvesting the profits. The Italian legally recognized social ventures are 9,204 organizations as extracted from the AIDA database (for social cooperatives) and the Register of the Chamber of Commerce (for SEs and SIAVs) (accessed May 2017).

According to the results of the survey, a striking feature of social ventures is their prevailing small size: 55 % of organizations have less ten employees; only 3% of organizations employ more than 250 people. In terms of operational maturity, on average, they are active in the market from 5 to 25 years. They operate in different sectors like agriculture, social housing, social care, health care, education, job placement, cultural heritage, and social tourism.

In Italy the Social Impact Investing (SII) industry ranges from $210,5 \in$ million AUM, according to a stricter definition based on the three pillars of intentionality, measurability, and additionality, to $6,5 \in$ billion AUM, considering all those who own the potential to be social impact investors. The core of Italian SII is composed of 46 financial entities which show public evidence of a commitment to finance socially-oriented organizations. Thirty of them (Table 1) took part in the present research (Paper 4). Among these actors, we can find banks, insurance agencies, family offices, foundations, venture capitals. 15% of investors have a local focus in terms of target investees, while 72% of them invests at the national level and 23% at the international level. Their investments are made in different sectors such as microfinance, environment, healthcare, agriculture, cultural heritage, social housing, social care. They mostly supply financial resources to social impact organizations that are in the start-up and growth phase, followed by those who target maturity.

#	Organization	Role	HQ	Target	AUM (mln€)	Geographical focus	Asset class	Fin. return	Sector focus
1	Venture Capital1	СМ	Milan	Start-up	5	National	Equity	UMR	Environment/ Health/ Agriculture/ Art/ Urban regeneration/ Social care
2	Bank1	СМ	Padua	Growth	700	National	Debt	MR	Microfinance/ Environment
3	Bank2	СМ	Milan	Growth/Maturity	6.000	National	Debt	MR/ UMR	Multisector
4	Bank3	СМ	Milan	Growth/Maturity	670	National	Debt	MR	N.A.
5	Bank4	СМ	Rome	Growth/Maturity	2.000	Local	Debt	UMR	Multisector
6	Bank5	CP/CM	Milan	Growth/Maturity	200	National	Equity/ Debt	MR/ UMR	Multisector
7	Foundation1	СР	Turin	Growth/Maturity	180	Local	Equity	С	Health/ Art/ Social housing/ Urban regeneration/ Social care/ Education
8	Venture Capital2	СМ	Turin	Growth/Maturity	144	National	Equity	MR	Environment/ Energy/ Health/ Art/ Urban regeneration
9	Foundation2	СР	Padua	Growth/Maturity	5	International	Equity/ Debt	UMR	Microfinance
10	Family Office1	СР	Turin	Maturity	34,6	National	Equity	MR/ UMR	Social housing/ Art/ Urban regeneration
11	Foundation3	СР	Milan	Growth	10	Local	Equity	UMR	Microfinance/Environment/ Health/Agriculture/Art/ Social housing/Social Care
12	Venture Capital3	СР	Rome	Growth	40	National	Equity/ Debt	UMR	Multisector
13	Foundation4	СР	Cuneo	Growth	10	Local	Equity	С	Multisector
14	Foundation5	СР	Turin	Maturity	140	Local	Equity	UMR	Social housing/ Social care/ Urban regeneration/ Others
15	Venture Capital4	СМ	Milan	Growth	0	National	Equity	UMR	Multisector
16	Venture Capital5	СМ	Milan	Start-up	0	National	Equity	UMR	Environment/ Agriculture
17	Venture Capital6	СМ	Milan	Start-up	1	Local	Equity/Debt	UMR	Multisector
18	Insurance Company1	СМ	Trieste	Start-up	10	National	Debt	С	Health/ Social care
19	Venture Capital7	СМ	Luxem burg	Growth	0	National	Equity	MR	Multisector
20	Venture Capital8	СМ	Milan	Start-up	0,3	National	Equity	MR	Multisector
21	Public Financial Institution1	СМ	Rome	Growth	150	National	Debt	С	Multisector
22	Venture Capital9	СМ	Milan	Growth	50	National	Equity	С	Multisector
23	Venture Capital10	СМ	Milan	Maturity	35	National	Equity	UMR	Health/ Agriculture/ Art/ Social housing/ Urban regeneration/ Social care
24	Family Office2	СМ	Milan	Start-up/Growth	6	International	Equity	MR	Multisector
25	Venture Capital11	СМ	Milan	Growth/Maturity	22	National	Equity	UMR	Microfinance/ Agriculture/ Urban regeneration
26	Venture Capital12	СМ	Milan	Maturity	65	N.A.	Equity	MR	Multisector
27	Venture Capital13	СМ	Turin	Start-up	0,5	National	Equity/ Debt	C	Agriculture/ Education/ Social Care
28	Bank6	СМ	Milan	Maturity	604,6	International	Equity/Debt	MR	Multisector
29	Bank7	СМ	Milan	Start-up/Growth	65	National	Debt	UMR	Multisector
30	Insurance Company2	СМ	Milan	Growth	171	International	Equity	MR	Environment/ Energy/ Social housing/ Social care

Table 1: sample of Italian social impact investors involved in the research

Note: ¹ CM= Capital Manager; CP= Capital Provider ; ² MR = Market Rate; UMR = Under Market rate; OMR = Over Market rate; C = Capital.

3.2 Quantitative methodology

To answer the first two objectives of the research (verify the trade-offs and identify configurations), I implemented a quantitative methodology using the tool of the survey. The target population of the survey includes all the Italian legally recognized social enterprises. Given the heterogeneity of the population, I applied a stratified random sampling to identify a sample of 3,682 organizations (about 40% of the total population) using a formula with a confidence level of 95% and margin of error of about - 1.25/+ 1.25. This method will increase the solidity of the results ensuring the representativeness of the sample size and, thus, the generalizability of the results.

Then, I developed a questionnaire composed of eight sections. It accounts for a total of 48 answers, address the following topics: an introductory section about the profile of the organization; the second one is about the business model of the organization; the third one about human resources management, founders' background, and governance; the fourth section asks about the growth strategies; the fifth about the social impact generated by the organization; the sixth about the context in which the organization operates; the seventh about financial structure and fundraising; and the last one includes some data about the size of the organization. The survey has been administered online by using the software SurveyMonkey. The questionnaire has been sent to e-mail addresses publicly available on the website of the organizations, clearly stating that the research targets the founder/s or managers of the enterprise. The survey has been evaluated, before the release, by social entrepreneurs and managers of specialized incubators for SVs to assess its clarity and appropriateness. The online survey has been open for responses from mid-May to the mid of October 2017. Five reminders through e-mail have been sent during this period. From the beginning of July 2017, a follow up by phone has targeted all the organizations that have not answer to the survey. To incentivize the respondent, they were allowed to download an academic report upon the completion of the questionnaire free of charge. I collected 456 questionnaires (about 12% response rate). Given the previous quantitative efforts at European level targeting SVs (Lyon & Sepulveda, 2009; Rey-Martí, Ribeiro-Soriano, & Palacios-Marqués, 2016; Scheuerle, Schmitz, Spiess-Knafl, Schües, & Richter, 2015) the response rate can be considered adequate. However, we are aware that this response rate is far lower than the average level in organizational and management studies (Baruch & Holton, 2008).

In Paper 1, I analyze these data through an association and latent class analysis (LCA) due to the exploratory nature of the topic. I conducted the association analysis using Pearson's chisquared test and Probit model. The latent class analysis (LCA) is a statistical technique, belonging to the body of finite mixture modeling, which allow to identify and describe unobserved groups, called latent classes, in a large set of data based on responses to a set of observed indicators.

In Paper 4, instead, I computed and reported descriptive statistics on the same data to compare the structure of the demand and supply of impact capital.

3.3 Qualitative methodology

To investigate the last two objectives of the research (influence of access to capital on the growth process and effectiveness of SII), I adopted a qualitative methodology using the approach of thematic analysis.

The thematic analysis is the structuring and interpretation of collected data in principal concepts, by the identification of prominent or recurrent themes. A theme represents a pattern or meaning within data, which captures something important in relation to the overall research question (Braun and Clarke, 2006; Dixon-Woods et al., 2005). Thus, the thematic analysis is an accessible and theoretically flexible approach to map an intellectual field into major themes and sub-themes (Attride-Stirling, 2001; Braun and Clarke, 2006).

Precisely, I follow the protocol of Marshall and Rossman (1999), as shown in Table 2, to increase the consistency and reliability of the analysis. I employed a deductive coding, extracting the main topics and categories from the existing academic literature. The coding process consisted of double reading. First, I did a literal reading to have a picture of the overall content. Then, I started a coding reading: data were reduced through the coding framework deducted from the theory (Attride-Stirling, 2001). After that, I contrasted and compared the pieces of coded text, looking for common patterns, repeated and emphasized concepts and synonymous (Burnard, Gil, Stewart, Treasure & Chadwick, 2008; Lieblich, Tuval-Mashiach & Zilber, 1998). As I recognized salient, frequent and significant arguments, I summarize them in more abstract principles, which represent the overreaching themes (Attride-Stirling, 2001; Burnard et al., 2008; Zilber, 2007). Finally, the resulting themes were reiteratively refined, to accommodate new arguments and obtain discrete, specific and non-repetitive themes, which are abstracted enough to cluster the coded text segments (Attride-Stirling, 2001). My coauthors and I validated our results by working separately, comparing our coding and discussing discrepancies and, then, triangulating the results with the standing theory.

1.	Organise the data
2.	Generate categories or themes
3.	Code the data
4.	Test emerging understandings
5.	Search for alternative explanations of the data
6.	Write-up data analysis

 Table 2: Marshall and Rossman (1999) protocol for thematic analysis

With this method, in Paper 3, I examined 75 documents written by the Social Impact Investment Taskforce of the Group of Eight and its National Advisory Boards during the years 2014-2016. Also, in Paper 4 I analyzed the *verbatim* transcriptions of the 30 interviews with social impact investors and documents publicly available or directly provided by the organizations.

In Table 3, I outline the methods and data used in the different works of the collections.

	Theoretical lens	Methodology	Data
Paper 1	Growth modes (Davidsson, Achtenhagen, & Naldi, 2007; Davidsson & Wiklund, 2006; McKelvie & Wiklund, 2010)	Association and Latent Class Analysis (Muthén, 2004; Nylund-Gibson & Choi, 2018)	456 responses from a survey administered to SVs' founder/manager
Paper 2	Framework provided by Berger and Udell (1998) about funding requirements and obstacles in the lifecycle of high tech ventures.	Literature Review	About 150 articles reviewed
Paper 3	Three infrastructures model (governmental, facilitative, and transactional) by Schwartz et al. (2015).	Thematic analysis (Marshall and Rossman, 1999)	75 documents written by the Social Impact Investment Taskforce of Group of Eight and its National Advisory Boards during the years 2014-2016
Paper 4	Ecosystem perspective (Moore, 1993; Iansiti and Lieven, 2004; Adner, 2017)	Thematic analysis (Marshall and Rossman, 1999)	30 interviews with social impact investors 456 responses from a survey administered to SVs' founder/manager

Table 3: summary of methods and data of the four papers

4. THE COLLECTION OF PAPERS

Four papers contribute to informing the research objectives mentioned above. The red thread of the collection is the analysis of how the firm's managerial challenges translate when the organization embraces a hybrid paradigm, which blends the generation of social and commercial value. Specifically, the issue is investigated in two specific domains of strategic choices for the company, growth and access to finance.

The first paper provides a quantitative analysis of growth in SVs proving the existence of a hybrid concept of growth; the second paper theoretically deepens the problem of accessing to finance of socially oriented hybrid organizations along the stages of their life cycle, and it identifies Social Impact Investing (SII) as a potential solution to them. Therefore, the third paper goes in depth into this under-investigated phenomenon. It draws a picture about its state of the art worldwide, laying the foundations for the development of the framework of the following essay. The last paper, indeed, jointly analyses the obstacles experienced by SVs in accessing to funding and the characteristics of SII to verify whether it represents an actual solution. It discusses the reasons why there is still a misalignment between the funding needs of socially oriented hybrid organizations and the expectations of capital providers.

Table A	holow	ronorte	a nanore	titla	co-authors	target jour	nal and	nublication	etatue
Table 4,	Delow,	reports	a papers	uue,	co-autions,	tai get jour	liai allu	publication	Status

	Title	Co-authors	Target Journal	Publication status	R.Obj.
Paper 1	Size vs Scale: the growth	Calderini, M.	Entrepreneurship	Presented at 9th International	R.Obj.a1
	dilemma of hybrid		Theory and	Social Innovation Research	R.Obj.a2
	ventures		Practice	Conference (ISIRC), Swinburne	
				University of Technology,	
				Melbourne, Australia.	
				To be submitted to target journal.	
Paper 2	Unlocking finance for	Arena, M.,	Technological	Published	R.Obj.a2
	social tech start-ups: Is	Bengo, I.	Forecasting &		R.Obj.b1
	there a new opportunity	Calderini, M.	Social Change		
	space?				
Paper 3	The social impact	Calderini, M.,	European Business	Published	R.Obj.b2
	investment race: toward	Chiodo, V.	Review		
	an interpretative	Michelucci, F.V.			
	framework				
Paper 4	Assembling the puzzle of	Bengo, I.	Journal of Business	Accepted to the European	R.Obj.b2
	Social Impact Investing:	Borrello, A.	Research	Academy of Management	
	an analysis of the Italian			Conference 2019.	
	ecosystem and its			Submitted to target journal in May	
	potential for			2019.	
	development				

Table 4: synthesis of the publication status of the four papers

Below, I provide a summary of the content of the papers, whose full text is included in the Annex.

• Paper 1

Title	Size vs Scale: the Growth Dilemma of Hybrid Ventures
Co-Authors	Calderini, M., Chiodo V. (*corresponding author)
Purpose	The paper quantitatively investigates whether there is a trade-off between increasing social and economic value and explores how it translates into different configurations in terms of the business model and growth modes.
Theoretical basis	The research answers the call of scholars (McKelvie & Wiklund, 2010) in the literature on firm's growth to shift the focus on growth modes, instead of rates and determinants. It builds on the growth and scaling strategies identified in the literature of firm's growth and social entrepreneurship.
Method	Associations and Latent class analysis (Muthén, 2004).
Data	456 responses from a survey targeting a sample of 3,682 Italian social cooperatives, SIAVs, and social enterprises.
Results	This paper proves the likelihood of a hybrid growth process since we found a positive association between the organic measure of social growth and commercial growth; while SVs have more difficulties in capturing the economic value of generating social impact through replication and dissemination. These findings raise concerns about the opportunity for long-term sustainability for SVs. It identifies two archetypes of strategies that lead to social and commercial growth: market penetration and scaling deep.
Candidate's contribution	Literature review, Data collection, Data analysis, Results outline, Discussions.
Scientific Journal	Entrepreneurship Theory and Practice

 Table 5: summary of Paper 1

Paper 1 is structured as follows.

<u>Purpose</u>

Paper 1 aims to investigate business growth applied to hybrid ventures (Battilana & Lee, 2014; Santos, Pache, & Birkholz, 2015). The analysis tests the idea that the co-existence of the driver of creating social value and that of increasing economic returns generates a trade-off situation; in these cases, the SV cannot pursue at the same time the strategy suggested by the social logic and that suggested by the commercial logic (Alberti & Varon Garrido, 2017; Siegner et al., 2018; Van der Byl & Slawinski, 2015). Furthermore, it explores whether trade-offs are more likely to emerge in different configurations in terms of the business model and growth modes. Indeed, as to the author's knowledge, any study has adequately examined hybrid growth modes (McKelvie & Wiklund, 2010) and whether they generate a misalignment between social and economic logic (Wry & Zhao, 2018).

<u>Methodology</u>

The dataset of this study consists of 456 responses collected through a survey administrated to a sample of 3,682 SVs. The purpose of the research suggests an exploratory approach. Therefore, three steps of analysis were performed: (1) associations analysis between social growth, commercial growth and characteristics of the business model; (2) latent class analysis (LCA) among the clusters of questions related to revenues sources, financial sources and growth strategies of the SV to identify SVs' typologies; (3) post-LCA associations analysis to understand whether the typologies are associated with social and commercial growth.

Social growth has been operationalized through the combination of four different answers from the survey (Table 6). We conceptualized Organic Social Growth (A) as *increasing the number of beneficiaries of the same category already served* or *serving new types of beneficiaries*; Social Growth by Replication (B) when the product/service/model is ALSO implemented by other organizations with a defined agreement between them and the SV ; and Social Growth by Dissemination (C) if the product/service/model is implemented by other organizations without a defined agreement between them and the social venture.

Commercial growth was measured by computing the average growth rate in two years of the total revenues from product and services and Return on Sales (ROS) (Gruenwald, 2015). To describe the possible hybrid business models, I included in the analysis a variable related to whether clients overlap with beneficiaries (Santos et al., 2015), different types of revenues sources (Defourny & Nyssens, 2017) and all the potential financial sources accessible by an SV ranging from pure repayable finance to pure grants (Achleitner & Spiess-Knafl, 2014). Lastly, I tested the role of the different growth strategies.

(Me	1 = 297	0 = 159	
[(Morebeneficiaries==1)	1 = 191	0 = 265	
OUTSOURCED SOCIAL	B. REPLICATION ((Morebeneficiaries==1) (Newbeneficiaries==1)) & (Replication==1) & (Dissemination==0)	1 = 30	0 = 426
GROWTH	C. DISSEMINATION ((Morebeneficiaries==1) (Newbeneficiaries==1)) & (Replication==0) & (Dissemination==1)	1 = 44	0 = 412

Table 6: description of the different measures of the variable social growth

<u>Findings</u>

The statistically significant relationship (Table 7) between social growth and commercial growth suggests an affirmative answer concerning the likelihood of a hybrid approach to growth. Conversely, the lack of association with the growth in terms of profitability (ROS) suggests that hybrid growth might imply some unforeseen costs to be sustained that organizations should take into account. The lack of association of social growth through replication and dissemination strategies with commercial growth might lead to a trade-off situation: the SV might push toward social growth disregarding economic sustainability. Another data signals a potential issue in terms of economic sustainability: the association between organic social growth and commercial growth disappears when clients and beneficiaries are the same. A possible explanation might be that most of the SVs achieving social growth, actually, accounts for sources of revenues that are not market-based.

Moving to the business model proxies, only those SVs whose commercial model benefits from public funding are more likely to grow the social value. This result confirms the idea that, so far, social growth is still enabled by the support of the public sector, either through contract or subsidizing the beneficiaries. Instead, the financial structure seems to do not affect the relationship.

As for growth strategies, three typologies emerged from the analysis: *Market Penetration, Alliances*, and *Scaling deep*. Market Penetration and Scaling deep are both associated with social and commercial growth (Table 8).

Theoretical contribution

The first contribution of this work is to feed the empirical heterogeneity of social entrepreneurship and hybrid organizations literature employing quantitative methods that complement the prevalent case studies approach (Scheuerle & Schmitz, 2016; Zhao & Lounsbury, 2016). Moreover, the research contributes to the literature on business growth by investigating growth as a process, including in the analysis a new dimension, i.e., social impact, and new growth strategies on the top of organic growth and growth by acquisitions (McKleive and Wiklund, 2010; Achtenhagen, Brunninge, & Melin, 2017).

Var/Chi2	CGTotRev	CGROS
Organic Social Growth	8.6758*	1.2679
Social Growth by Replication	5.5876	0.8879
Social Growth by Dissemination	0.5433	0.1390

* Significance <0.05 ** Significance <0.01

Table 7: Pearson's Chi-square test between Social vs Commercial Growth

SV'S TYPOLOGIES		SOCIAL GROWTH	COMMERCIAL GROWTH	
Revenues Sources		<i>Totally public support based</i> SVs are more likely to have an organic social growth	No statistically significant association	
Financial Sources		No statistically significant association		
Growth Strategies Market penetration Alliances		SVs embracing <i>Market penetration growth</i> <i>strategies</i> are more likely to have an organic social growth	SVs embracing <i>Market penetration growth</i> <i>strategies</i> are likely to grow commercial activities	
		No statistically si	gnificant association	
	Scaling deep	SVs embracing <i>Scaling deep</i> growth strategies are likely can both have an organic social growth or through replication and dissemination.	SVs embracing <i>Scaling deep</i> growth strategies are likely to grow commercial activities.	

Table 8: summary of relevant results of Post-LCA Association Analysis

• Paper 2

Title	Unlocking finance for social tech start-ups: Is there a new opportunity space?			
Co-Authors	Arena, M., Bengo, I. (*corresponding author), Calderini, M., Chiodo V.			
PurposeThe paper analyses the barriers to financing experienced by social tech start-ups and the instruments that are most suitable to address their financial needs. The review addr problem of financing mechanisms for hybrid organizations using the case of social tech as paradigmatic of the broader problem.				
Theoretical basisFramework provided by Berger and Udell (1998) about funding requirements and obstate the lifecycle of high tech ventures.				
Method	Literature review and drafting of a research agenda.			
Data	About 150 papers reviewed			
ResultsThe paper verifies that the institutional solutions in terms of financing which are concepted by high-tech start-ups for growth are not enough to support social tech start scale. Therefore, we introduce the concept of Social Impact Investments and discuss its protection. Specifically, three main areas appear crucial for explaining its evoluted demand-supply matching, (2) the development of a proper accountability infrastructure the development of the regulatory framework.				
Candidate's contribution	Literature review, Data analysis, Results outline.			
Scientific Journal Technological Forecasting and Social Change				
Table 9: summary of Paper 2				

Paper 2 is structured as follows.

<u>Purpose</u>

In Paper 2, I explored the assumption that when an enterprise adopts a "social mission", it may become simultaneously more difficult or simpler to access financial resources for growth. I tested this assumption focusing on focus on social tech start-ups that develop and deploy technology-driven solutions to address social needs in a financially sustainable manner.

<u>Methodology</u>

I performed a critical analysis of the solutions that can be employed to finance social tech startups in different lifecycle stages, underlying which obstacles they encounter in accessing them (Table 10). To guide the analysis of financing instruments, I refer to the seminal paper of Berger and Udell (1998) and more recent papers developed consistent with this framework.

Building on the results of the review, precisely on the emergence of social impact investing (SII) as a potential alternative solution, I formulated a research agenda, including directions for research and theoretical development in the field of SII,

Stage	Financial Needs	Factors/barriers	Sources
Seed	Low	High risk Unfavourable risk/return relation Threat of mission drift Legal form Lack of managerial skills	Grants from charities Grants from corporation Grants from government agencies HNWI Retail (crowdfunding; peer to peer lending) Business incubators
Start-up	High	Information asymmetry Performance measurement and monitoring Moral Hazard Legal form	Equity (crowdfunding) Hybrid financing forms Patient Capital Mezzanine financing Venture Philanthropy
Early growth	Very high	Information asymmetry Lack of collateral Lack of financial skills Fear of failure	Public Procurement Social Impact Bonds Microfinance Term Debt with flex features (social banks) Subordinate Debt
Growth	Medium	Size Mission lock requirements	Commercial Debt Equity (Social Impact Fund)

Table 10: outline of financial barriers and financial instruments

Findings

The examination shows that the traditional barriers are often further amplified by the hybrid nature of social tech start-ups. Indeed, hybridity might be a source of confusion because these ventures do not fit neatly in either the for-profit or the non-profit categories (Bridgstock, Lettice, Özbilgin, & Tatli, 2010). Also, the need to jointly implement a commercial and social value proposition impacts on the volume and speed of the returns generated by social tech start-ups. Besides, the time horizon needed to create social value is often higher than that of pure financial value (Murphy & Coombes, 2009; Vansandt, Sud, & Marmé, 2009). In contrast, hybridity can also help social tech start-ups overcome some obstacles (Doherty et al., 2014) because they can engage both commercial financiers and those interested in supporting social issues (Achleitner & Spiess-Knafl, 2014; Chertok, Hamaoui, & Jamison, 2008) and attracting both market and non-market sources of external finance (Teasdale, 2010).

Theoretical contribution

I detected Social Impact Investment as an emerging solution that appears particularly promising for SVs. However, the SII field is still emerging, and the proposed instruments have not proven their sustainability and effectiveness. Based on these considerations, I outline a research agenda that addresses the potential of SII to support social tech start-ups in overcoming the barriers they experience in access funding. Several urgent research questions (Table 11), inspired by different theories, need to be investigated by academics to boost the legitimacy of this solution. The theme of demand and supply matching will be further investigated in Paper 4.

Macro Themes	Specific barriers	Theory	Research questions	
Demand and supply	Further difficulties in	Resource Based view	Which capabilities may help SEs to engage different types of financiers?	
matching	obtaining resources			
	Lack of managerial and		Does the provision of non-financial services	
	financial skills		from investors enhance the survival of the social venture?	
	Lack of collaterals		How investors can account for the social capital in their decision making process?	
Accountability issue	Need of balance the "social"	Stakeholder Theory		
	stakeholders and		Which are the potential tensions between	
	"economic" stakeholders'		SEs' stakeholder?	
	interests			
	Lack of measurement	Agency theory	How we measure the real social value? What	
	system for social value		are the metrics?	
			to determine the standard measurement? How	
Regulatory framework	Lack of public sector	Contingency Theory	To what extent should SII markets be	
	intervention		regulated?	
			market failure, which kind of role can the	
			government play?	

Table 11: research agenda

• Paper 3

Title	The social impact investment race: toward an interpretative		
	framework		
Co-Authors	Calderini, M., Chiodo V. (*corresponding author), Michelucci, F.V.		
Purpose	The paper draws an interpretative framework of the evolution of SII in different countries. The framework helps to structure the description of how the essential facilities of SII market are shaped in practice and their implications on the growth of the market.		
Theoretical basis	The research is based on the framework of Schwartz et al. (2015), which identifies three kinds of infrastructures that should be considered to develop the SII market: governmental, facilitative, and transactional.		
Method	Thematic analysis (Marshall and Rossman, 1999), coding through Nvivo software.		
Data	75 documents written by the Social Impact Investment Taskforce of the Group of Eight and its National Advisory Boards during the years 2014-2016.		
Results	This paper identifies four pillars which play a discriminant function to analyze the state of evolution of SII in different countries: information asymmetry, financial instruments, source of capital, and market intermediation. These characteristics, defined as market enablers, distinguish a small group of road runners, the Anglo-Saxon countries, that are ahead practices compared to other countries.		
Candidate's contribution	Methodology, Data Analysis, Results outline, Discussions		
Scientific Journal	European Business Review		

Table 12: summary of Paper 3

Paper 3 is structured as follows.

<u>Purpose</u>

Despite the hype around SII, this phenomenon has been discussed mainly by the professionals of the field using a storytelling approach, while there is sufficient room for academics to perform more rigorous analyses and comparisons. Therefore, this paper aims to develop an interpretative framework to analyze the SII evolution in different countries worldwide.

<u>Methodology</u>

This essay reports the results of the thematic analysis (Marshall and Rossman, 1999) of the 75 documents written by the SII Taskforce of the Group of Eight and its National Advisory Boards during the years 2014-2016. They have engaged more than 200 experts across twelve countries (UK, Canada, France, US, Germany, Italy, Japan, Brazil, Israel, India, Portugal, and Mexico). Theoretically, this paper is based on the framework of Schwartz, Jones, & Nicholls (2015), that identifies three infrastructures that should be considered to grow the SII market: the role of government as facilitator and regulator of the SII market; facilitative infrastructure set by the activities of professionals, specialized consultants and measurement tools; transactional

infrastructure, in terms of source of capital, after-market liquidity, products and intermediaries.

Findings

From the analysis, it emerges six main themes which are the pillars of the framework used to analyze the SII advancements in different countries. First, *information asymmetry*. The analysis enlightened a variety of methods to measure the blended performances of the investment, but there is a general lack of homogenization and reconciliation among the tools. On the front of *financial instruments*, the results demonstrated a general prudential preference for blended capital mixing debt-like instruments and grants. The third and fourth theme are the prevalence of *private capital* coming from charities and foundations and the scares presence of *public capital*, that, except for the UK and US, it is still confined to prototypes and small scale initiatives. The remaining two themes refer to market intermediation. The promulgation of a *regulation* tailored for the SII industry has not entered the political agenda yet, given that worldwide governments are still very cautious, with the sole exception of UK and US. In these countries, there is also an increasing specialization of advisers and intermediaries. Whereas, in the other countries the specialization of *private intermediation*, the last theme, is not established.

Theoretical contribution

The themes originate an interpretative framework (Table 13) to evaluate the state of evolution of SII, which is constituted by four important pillars, namely *information asymmetry*, *financial instruments*, *source of capitals*, and *market intermediation*. Considering these pillars, the paper classifies the SII practices according to their degree of development: *experimental*, if SIIs are occasional, and *systematic*, if the practice is institutionalized into the market's actors strategy. The paper points out that UK and US result to be the pioneers in many of the practices identified during the analysis; while in all the other countries (including the empirical setting of the present study, Italy) SII infrastructures lack any systematization. The state of art of SII worldwide can, thus, be described as experimental and this suggests the line of research of Paper 4.

Analytical elements	Experimental	Established	
Information asymmetry	lack of social impact measurements standards;bottom-up development of tools and metrics;		
Financial instruments	 philanthropic imprint; deb-like instruments;		
Source of capital	 lack of institutional investors and HNWI capital; lack of engagement of retail market; public sector engagement through small and low-risky prototypes; 	 big established foundations; strategic public funding; 	
Market intermediation	 lack of public endorsement; commercial banks with affordable products. 	 organic legal framework; specialized intermediaries and investment banks. 	

 Table 13: interpretative framework

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• Paper 4

Title	Assembling the puzzle of Social Impact Investing: an analysis of the Italian ecosystem and its potential for development		
Co-Authors	Bengo, I, Borrello, A., Chiodo V. (*corresponding author)		
Purpose	The study investigates the strategic alignment of Social Impact Investing (SII). To this aim, the challenges hampering the development of SII are interpreted using an ecosystem perspective and verified through the analysis of data about the supply and demand side of the case of Italian SII industry.		
Theoretical basis	Ecosystem Literature (Moore, 1993; Iansiti and Lieven, 2004; Adner, 2017).		
Method	Thematic analysis (Marshall and Rossman, 1999)		
Data	30 interviews with social impact investors		
Results	The analysis identifies four themes: <i>lack of strategic alignment, intangible infrastructure, need of a keystone, collaborative approach</i> . The alignment of intents does not lead to an alignment of practices; thus, there is the need of identifying a keystone to create an intangible infrastructure composed by capacity building programs and decision-making frameworks able to assess to social performance.		
Candidate's contribution	Literature review on Ecosystem and demand side of SII, Data collection, Data analysis, Results outline, and Discussions.		
Scientific Journal	Journal of Business Research		

Table 14: summary of Paper 4

Paper 4 is structured as follows.

<u>Purpose</u>

In this paper, I tested the hybrid paradigm in the financial sector starting from the following assumption. The principle underpinning the activity of enterprises and investors is no longer the pure maximization of profits, but the generation of a positive benefit for the community; it, in turn, might change the common arrangements in terms of the relationship between actors, the investors' production function, strength, weaknesses of the market and its trajectories of evolution. Therefore, the purpose of this work is to investigate the alignment strategy of an ecosystem driven by the shared goal of generating social value, like Social Impact Investment.

<u>Methodology</u>

We develop a framework combining the elements that the scholars pinpoint as pertaining to an ecosystem with the challenges of the SII industry acknowledged by scholars. It drove both the collection and analysis of data.

The baseline of this essay is composed of both results of the survey already used in Paper 1 and 30 semi-structured interviews to Italian social impact investors. The data about supply side have been analyzed using a thematic analysis approach in order to scout the main trends

related to the research objective (Table 16); instead, I performed descriptive statistics of the responses to the survey to gain insights about the features of the demand.

Findings

We identified five themes: *lack of strategic alignment, intangible infrastructure, need of a keystone, collaborative approach.* They represent the supplier perspectives on the SII Italian ecosystem, which have been, then, discussed in light of the structure of the demand side. The comparison leads to the identification potential solutions to foster the strategic alignment (Table 15).

The first theme refers to the fact that the alignment in terms of intents is not paired by that in terms of practices. An example is the issue of the scale of the market, which, according to investor, is not satisfactory. They propose to address this problem by including technological innovations in business models of social ventures to foster the scalability of the solutions. Moreover, the analysis reveals that the ecosystem is not lacking the tangible asset, i.e., the capital, but the intangible ones. The essential requisites are the managerial capabilities of social-oriented organizations and the social impact measurement methodologies. In the SII industry, the leverage to mitigate information asymmetries and the related risk of moral hazard seems to be a measurement and reporting infrastructure for social impact. The lack of alignment and the lack of capabilities brings about the third theme: from the interviews it emerges the absence of an actor playing the role of keystone. The role of keystone in the SII ecosystem might be that of an independent evaluator providing the social impact measurement infrastructure. For example, the public sector might play a crucial role in the issue of impact measurement by arrange and supervise a participatory process to define measurement standards or by building reliable databases for impact measurement.

Despite the absence of an actor setting the rules of the game, the relationships among players in the ecosystem are characterized by a *collaborative approach*. Investors work together and with other players both in the scouting and investing phase. In this direction, partnerships with specialized incubators and providers of non-financial services might overcome the difficulties of investors in the scouting and assessment phase. Moreover, co-investing and building publicprivate partnerships might help to lower to risks and costs related to the absence of track records on financial and social performance.

Theoretical contribution

The themes identified in the analysis might represent a list of guidelines for the players of the ecosystem to support its healthy development. In terms of theoretical implications, an interesting avenue of future study is related to the collaborative approach characterized the SII ecosystem and whether and how it is coherent with the idea of coopetition. This will contribute to enlighten the nature of relationships among the actors of the ecosystem. Another interesting path might be to apply the co-evolutionary theory to jointly investigate the evolution of both demand and supply of impact capital and, whether moving out from an early stage, there will emerge one or more dominant design in terms of type on investors and investees.

Lastly, the essay provides an original contribution by combining in one work both data about the supply side and the demand side of SII capital and making them talking one to others. Given that SII is advocated as the solution to fund social oriented businesses (Bugg-Levine, Kogut, & Kulatilaka, 2012a; Moore, Westley, & Nicholls, 2012), a way to prove its effectiveness seems to be catching the demand side perspective on that.

CHALLENGES	ALIGNMENT STRATEGIES	
Lack of appropriately design investment	Technological business model	
opportunities Eligibility criteria	Social venture legal framework	
Lack of resources and competencies to measure	Keystone as third party evaluator of the measurement of social	
social impact	performance	
Moral hazard		
Dominance of investment logic	Co-investment	
Lack of knowledge and expertise [of investors] to	РРР	
strategy	Partnerships with incubators and provider of non-financial services	
Higher level of information asymmetries	Capacity building promoted by investors	
Lack of appropriately design investment		
opportunities		

Table 15: alignment strategies

BLOCKS	TOPICS	CATEGORIES	CODES	THEME
Firm	Members of the ecosystem and their roles	Knowledge and expertise Impact investing approach Expectations of investors Investment opportunities	Data and tools, methods to measure social impact Scalable business model Role of Keystone assume by a leader of mainstream sector Lack of investment opportunities Poor social entrepreneurial environment Need to scale Lack of competences form public sector to step in the market SGR Banks Corporate and Banking Foundations Real estate investments for urban regeneration European funds Social leasing in PPP Social Bond Social Lending, crowdlending Developing countries Digital platforms	LACK OF ALIGNMENT NEED OF A KEYSTONE COLLABORATIVE APPROACH INTANGIBLE INFRASTRUCTURE
Network	Activities: how value is created	Infrastructure	Social value more important than the economic value Moral and ethical behaviors of people Welfare services as the main target Balanced equity and loan Microcredit Direct Investment Investment through intermediaries Minority Shareholding Socially oriented for-profit vs. non-profit Support the investee Public policy to grow the demand side Stewardship role of public sector Guarantee mechanisms Develop competencies, need of capacity building More intermediaries Social Impact Agenda (advocacy organization) Raise awareness Incentives	
	Network structure: relationships and level of interconnection among BE actors	Transaction costs Liquidity	Indirect Co-investmentsNetwork for scouting Call for ideas Capacity building program University for scouting Consultant Low liquidity	
Governance	Governance, rules of ecosystem participation	Information asymmetries Governance mechanisms	Top-down approach in the definition of social objectives Negotiation in the definition of social objectives	
Performance	Performance	Social risk Social return Financial risk Financial return	No method to measure social impact No quantification of social impact Qualitative assessment of social goals Positive financial returns Below market rate financial returns Market rate financial returns Higher risk of investment	

Table 16: coding process

5. IMPLICATIONS FOR THEORY AND PRACTICE

5.1 Theoretical Contribution

The current research, which aims to shed light on the managerial challenges emerging from hybridity, places itself first and foremost within the growing literature on social ventures. However, the discourse on social entrepreneurship builds upon different disciplines (Lortie & Cox, 2018; Saebi, Foss, & Linder, 2019) which increases the potential of theory expansion of the current work. One overarching contribution is, thus, the application of different established and emerging theoretical lenses - such as firm's growth theory, resource-based theory, ecosystem perspective - to a new field, in some cases for the first time. Also, SVs can be considered a specific type of hybrids that usually blends economic sustainability with other important causes (Battilana et al., 2012). Therefore, the results of the study might also be extended to hybrid organizations and contribute to enlarging that stream.

The collection of data represents another merit of the entire study. It feds two streams of literature, SVs and SII, which are still lagging in terms of availability of data (Agrawal & Hockerts, 2019; Sassmannshausen & Volkmann, 2018). The research built a consistent and unique dataset composed of 456 responses of SVs and 30 interviews of social impact investors. Furthermore, the Italian social economy, despite professionals acknowledging its relevance, is under-investigated in the academic literature.

Below, I first outline how the different essays of the collection informs the research objectives and, then, I underline how the findings enrich the different theoretical domains and how they can be valuable for practitioners and policymakers.

Paper 1 explores the issue of a potential trade-off between social and commercial logic within the growth process of the organization. The identified quantitative relationship between social and commercial growth confirms the relevance of the first research objective; moreover, it provides a conceptualization of how to measure social growth, opening the opportunity to undertake further quantitative analyses to corroborate and expand the results. It also considers a broad range of growth strategies, underlining which ones more likely bring to social and commercial growth; and, lastly, it tries to link the strategies with the most fitting arrangement of business model. First, this work feeds the empirical heterogeneity of SVs and hybrid organization literature, which is dominated by a case study approach (Pache & Santos, 2013; Scheuerle & Schmitz, 2016). Second, it clarifies the concept of scaling social impact in the literature on social entrepreneurship by providing a more precise way to conceptualized it and moving headed from the prevalent descriptive approach used so far. Then, it answers to the call by prominent scholars in the firm's growth literature to investigate hybrid growth modes considering traditional strategies implemented by profit-maximizing companies and some inherited by the not-for-profit realm.

Paper 2 bridges the two domains where the issue of hybridity trade-off is examined, growth and access to finance. Indeed, I analyzed whether the social mission makes it easier or more difficult the access to external funding for start-ups, by comparing the obstacles faced by hightech start-ups with those typical of SVs. It again expands the growing literature on SVs by addressing a challenge, the access to financial resources, that scholar pinpoint as one of the most pressing for SVs (Doherty et al., 2014).

Both Paper 3 and Paper 4 contributes to the literature on SII and, specifically, Paper 4 tries also to meet the need of demonstrating a real demand of social impact investments (Lyon, 2016; Lyon & Baldock, 2014), which in turn would increase the legitimacy of this market.

Paper 3 demonstrates that SII is developing at different speeds worldwide. It has the merit of providing an interpretative framework of an emerging phenomenon, which is still in a phase of unruliness and where a storytelling approach dominates the debate. It places the Italian SII market in the "chasers" countries, where *"the practices are still at an experimental dimension, to prove SII feasibility and functioning"*. In doing so, it paves the way of the analysis done in the following and last essay. Indeed, it demonstrates that the functioning of the SII market deserves further investigation because it is still in an experimental phase. This result seems to give a partial answer to the questions posited as a conclusion of Paper 2: whether SII might represent a solution able to solve the drawbacks of institutional sources in funding the growth of SVs. Therefore, in Paper 4, I decided to go in-depth in understanding which arrangement in terms of practices of the SII industry might meet the financial needs of SVs.

In Paper 4, relying on the suggestions provided by the scholars in the ecosystem literature, I identified the challenges hampering the alignment in the SII Italian industry. This essay follows the direction introduced by Adner (2017) that considers the strategy of the ecosystem as the effort of the members to find a satisfactory alignment in terms of roles and practices.

In this case, the results of applying the hybrid paradigm contribute to the literature on ecosystems bringing to attention on the intangible infrastructure needed by the members of the ecosystem (represented by capacity building and instruments to assess the social performance). Moreover, it tries to fill the gap about the nature of relationships in the ecosystem. Indeed, it underlines that social impact investors employ a collaborative approach in their effort to establish this market both in the scouting of investees and in advocating for the market.
5.2 Practical Implications

All four papers provide useful guidelines for hybrid organizations and investors operating in the impact venturing realm. Also, as I already underlined in several parts of this essay, the belief underpinning this work is that the relevance of these insights about the hybrid paradigm will increase more and more in view of the current trend that sees the growing importance of blended value in the business sector. The bet is that soon every company worldwide should deal with the managerial challenges caused by the joint pursuit of social and economic value.

Paper 1 mostly apprises managers of ventures, both social and not. Having a clearer understanding of what "scaling social impact" means might help SVs' managers to plan more effective strategies and also to measure their growth in order to address the criticisms on their social performance. The results might, also, support managers of profit-maximizing companies in considering different strategies to use in growing the organizations; further, the use of hybrid growth strategies might help them in meeting the pressures related to the role of businesses in society (Haigh & Hoffman, 2014).

Paper 3 and Paper 4 identifies a lack of specific infrastructures to boost the functioning of the SII market, and thus of the impact venturing overall in Italy. Policymakers might intervene to enable the alignment between the demand and supply in the SII market. For instance, governments can contribute to solving the specific issue of the eligibility criteria through a legal framework able to protect the social mission of SVs but also to meet the expectations of investors; or they can play the role of independent trustee to establish a level of accountability in terms of social performance able to satisfy both between the demand and supply side.

In conclusion, the collection of papers tested the likelihood of implementing a blended value proposition integrating the social logic and the commercial logic in one single business model; it tries to understand whether it causes situations of trade-off not experience by profit-maximizing ventures and how they can be overcome. This assumption might represent the most radical step in the discourse which challenges the neoclassical economic and utilitarian theories where economic transactions are just minimally affected by social relations (Granovetter, 1985). Therefore, I hope that the results of this collection help the theoretical debate to continue along this path.

	Research Objective	Results
Paper 1	a) Investigates whether there is a trade-off between increasing social and economic value and explores how it translates into different configurations in terms of business model and growth modes.	This paper proves the likelihood of a hybrid growth process. Once the social growth is "organic" there is not the trade-off; while once we introduced the two "hybrid strategies" of replication and dissemination, an increase in social impact does not imply an increase in the volume of activities. It identifies two archetypes of strategies that lead to social and commercial growth: <i>market penetration</i> and <i>scaling deep</i> .
Paper 2	b) Understand whether when start-up adopts a "social mission", it may become much more difficult or much simpler to access financial resources for growth.	The paper verifies that the financial institutional solutions that are commonly exploited by high-tech start-ups for growth are not enough to support social tech start-ups to scale. Therefore, we introduce the concept of Social Impact Investments and discuss its potential contribution. Specifically, three main areas appear crucial for explaining its evolution: (1) <i>demand-supply matching</i> , (2) <i>the development of</i> <i>a proper accountability infrastructure</i> , and (3) the <i>development of the regulatory framework</i> .
Paper 3	c) Describe how the essential facilities of the SII market are shaped in practice.	This paper identifies four pillars that have a discriminant function to analyze the state of evolution of SII in different countries: <i>information asymmetry, financial instruments, source</i> <i>of capital</i> , and <i>market intermediation</i> . These characteristics, defined as market enablers, distinguish a small group of road runners, the Anglo-Saxon countries, that are ahead practices compared to other countries.
Paper 4	d) Investigates the factors that hinder the alignment of an ecosystem driven by the shared value proposition of generating social value, like SII.	The analysis identifies four themes: <i>lack of strategic alignment, intangible infrastructure, need of a keystone, collaborative approach.</i> The alignment of intents does not lead to an alignment of practice; thus, there is the need of identifying a keystone to create an intangible infrastructure composed by capacity building programs and decision-making frameworks able to assess to social performance.

Table 17: summary of research objectives and results of the papers

6. LIMITATIONS AND AVENUES OF FUTURE RESEARCH

Despite the attempt to use the greatest carefulness and rigor in developing the research, I should acknowledge a few shortcomings that might lower the reliability and generalizability of the results. At the same time, these limitations might turn into interesting lines of further research.

I thoroughly discuss the limitations and potential of further research in each essay; below, I address some drawbacks of the entire research design.

The first criticisms might be raised concerning the empirical setting. The study is, indeed, focused on one specific country, Italy, and all the primary data collected refer to the Italian context. A focus on a specific empirical setting could be a limit to the generalizability of the results. On the other hand, we developed, and described in details, a straightforward methodology that could be easily replicated in other European and non-European countries to test, corroborate or validate the results. Also, the choice to focus on one single country is justified by the confusion still surrounding the concept of SVs and SII, with exclusion and inclusion criteria vary from countries to countries. Nevertheless, replication studies in other geographies, and related comparative analyses, are a potential avenue of future research.

Furthermore, the current work looks inside the organizations, purposefully overlook the external environment where they operate and its characteristics. The comparative studies will enable to examine the relationships between hybrid growth and specific institutional factors. In doing so, research might help to understand how the presence or absence of factors in the external environment affect the hybrid performance of SVs.

Another interesting comparison would be between different legal forms that hybrid organizations can assume (Haigh, Kennedy, & Walker, 2015).

Second, Paper 3 and Paper 4 suffer the limitations related to qualitative research in terms of potential subjectivity of the results. In this respect, the use of data from multiple sources help to lower the risk.

Lastly, in Paper 4, the results about the nature of the relationship in the ecosystem point toward a prevalent collaborative approach in the SII market, which might be considered as a consequence of the application of the hybrid paradigm. Therefore, the research suggests further exploration of the theme of coopetition and its links to the hybrid paradigm to confirm the insights.

Lastly, none of the works was set to catch the perspective of the public sector in the impact venturing. However, the findings of Paper 3 and 4 reveal that the public authority might play a

pivotal role but, so far, has not seriously stepped into this phenomenon in most of the countries, except the UK. Also in the pioneering UK market, where the government can be considered the trigger of the industry, it was questioned about its actual contribution to the effective selfsustainability of the SII market (Hall et al., 2012; Wells, 2012). Nevertheless, it also emerges the need to develop an enabling infrastructure to support both SVs and social impact investors. Moreover, both social entrepreneurship and SII are not meant to substitute, but complement the public intervention in the welfare sector. Analyses focusing on the role of the public sector and possible arrangements of public-private partnerships are welcome.

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ANNEX

PAPER 1: Size vs Scale: the Growth Dilemma of Hybrid Ventures

Size vs Scale: the Growth Dilemma of Hybrid Ventures

Mario Calderini, Department of Management, Economics and Industrial Engineering

Veronica Chiodo* Department of Management, Economics and Industrial Engineering veronica.chiodo@polimi.it

Abstract

The paper deals with a novel conceptualization of firms' growth that blends social and economic value creation. It quantitatively investigates whether there is a trade-off between increasing social and economic value and explores how it translates into different configurations in terms of business model and growth modes. To address this question, we performed an association and latent class analysis on the data collected through a survey targeting more than 3,600 social ventures in Italy. The study contributes to the literature on the firm's growth by focusing on growth process, and it is the first that conceptualizes and quantitatively analyzes social growth.

Keywords: social ventures, firm growth, latent class analysis, hybridity, scaling, blended value

The commitment to generating a blended value, which produces positive effects on the society alongside economic returns, is increasingly spreading in the business sector and, therefore, the hybridity paradigm seems to be the new "mantra" (Schmitz & Glänzel, 2016).

This paper aims to investigate business growth applied to hybrid ventures (Battilana & Lee, 2014; Doherty, Haugh, & Lyon, 2014). An organization is defined as a hybrid when it shows the combination of multiple organizational identities, organizational forms or different types of institutional logic (Haigh, Walker, Bacq, & Kickul, 2015; Schroer & Jager, 2014; Skelcher & Smith, 2015). Indeed, since 2003, when the blended value proposition was introduced by Emerson (2003) later recalled by Porter and Kramer (2011) - the corporations have started to be considered responsible of the generation of a broader value, than the economic one. Corporate Social Responsibility (CSR) has shifted from being a side-unit of the company to strategic leverage for the creation of economic value (Arena, Azzone, & Mapelli, 2018; Gao & Bansal, 2013; Haigh & Hoffman, 2014). Recently, Hart and Zingales have again promoted this idea, stating that, "companies should maximize shareholders welfare, not value" (Hart & Zingales, 2017: 3). At the forefront of this movement, we are witnessing the emergence of an entrepreneurial entity, which comes into the world with a hybrid mission: both the social and commercial side are integrated into one business model (Maier, Meyer, & Steinbereithner, 2014). They are named social ventures (SVs), and their primary aim is to provide solutions to the most wicked problems – such as aging, climate change, refugee's crisis – leveraging on forms of entrepreneurship and trading (Margiono, Zolin, & Chang, 2017). The disruptive characteristic of this new paradigm is "the ability to integrate a business model to the provision of a social need" (Hynes, 2009: 114); as a result, in the same business model, values traditionally pertaining to not for profit sector blends with the creation of economic value traditionally implemented by for-profit companies (Austin, Stevenson, & Wei-Skillern, 2006; Grassl, 2012; Seibel, 2015). Typical examples of SVs (Battilana, Sengul, Pache, & Model, 2015; Hockerts, 2015; Lee Rhodes & Donnelly-Cox, 2014) are work integration social enterprises, ventures that serve people at the base of the pyramid, fair trade organizations. Mixing commercial activities and social

purpose, SVs are characterized by the co-existence of two different principles, i.e., market logic and social welfare logic (Besharov & Smith, 2014), and this positions them as hybrid organizations (Doherty, Haugh, & Lyon, 2014). The hybrid nature involves that they are caught between conflicting drivers of action and stakeholders' interests and this introduces further levels of complexity in establishing and managing those organizations, leading to the creation of strategic tensions (Bruneel et al., 2016; Pache & Santos, 2010; Siegner, Pinkse, & Panwar, 2018; Smith, Gonin, & Besharov, 2013).

The literature on hybrid organizations sheds the light on how these ventures generate business model and strategy innovation in their effort to integrate the nonprofit and for-profit elements and addresses the related tensions (Battilana & Dorado, 2010; Ebrahim, Battilana, & Mair, 2014; Hockerts, 2015; Pache & Santos, 2010; Smith et al., 2013; Van der Byl & Slawinski, 2015). However, few studies (Dobson, Boone, Andries, & Daou, 2018; Kannothra, Manning, & Haigh, 2018; Pache & Santos, 2013; Phillips, 2006; Tasavori, Kwong, & Pruthi, 2018) try to analyze the growth challenges of firms using the lens of hybridity. Therefore, the paper aims to expand this stream of literature by investigating the topic of hybrid growth in a broader empirical setting such as Italian social entrepreneurship and focusing on strategic and managerial issues. Two research questions lead the study: (a) *does hybrid growth, blended social value creation and economic return, imply a trade-off situation?* (b) *Is this related to specific organizational configurations in terms of the business model and growth modes?*

To this aim, we collected primary data about a sample of 3,682 SVs identified in the Italian context, and we performed an exploratory statistical examination using association tests and latent class analysis to understand the relationship between social and commercial growth.

Specifically, we identified three types of social growth that SVs can implement ranging from increasing the number of beneficiaries by increasing the volumes of activities to replication and dissemination which increase the social impact generated without changing the organizational arrangement. We investigate the relationship between the different mechanisms of social growth and

commercial growth to understand whether once an SV grow the social impact, it is also able to increase the commercial activities. Finally, a hybrid growth is possible since we found a positive association between the organic measure of social growth and commercial growth; while SVs have more difficulties in capturing the economic value of generating social impact through replication and dissemination. These findings raise concerns about the opportunity for long-term sustainability of SVs.

The research contributes to both the literature on business growth and hybrid organizations.

The first contribution of this work is to feed the empirical heterogeneity of social entrepreneurship and hybrid organizations literature employing quantitative methods that complement the prevalent case studies approach (Saebi, Foss, & Linder, 2019; Scheuerle & Schmitz, 2016; Zhao & Lounsbury, 2016). The other expected impact at the theoretical and practical level focuses on contributing to clarify the idea of scaling hybrid ventures in terms of its managerial implications.

The paper proceeds as follows. We begin analyzing the notion of growth in for-profit companies and then how it translates when referring to SVs. We next outline the research design, the empirical setting and the statistical techniques employed in the data analysis. Then, we move to the presentation of the results according to the three steps performed in the examination, namely (a) pre-LCA association, (b) latent class analysis (LCA), and (c) post-LCA analysis. Lastly, we discuss how the identified SVs' typologies and their relations with social and commercial growth might extend the existing academic literature; and, we conclude underlining how the limitations of this study suggest new avenues of further research.

The theorization of size and scale

In this work, we are interested in understanding what happens within organizations with a hybrid nature while they are growing. Therefore, we review the existing academic literature dealing with growth modes and strategies (Ortiz-de-Urbina-Criado, Guerras-Martín, & Montoro-Sánchez, 2014) in small for-profit businesses and SVs. Far to provide an exhaustive review of the issues related to

the firm's growth process, building on the findings of the existing literature, we tried to operationalize the two principles of size – dimensional growth as conceived by the business literature – and scale – increasing the positive social value produced.

Despite the increasing spread and interests from both academics (Dionisio, 2019; Saebi et al., 2019; Sassmannshausen & Volkmann, 2018) and practitioners, the ability of SVs to contribute in systematically tackling societal challenges has been recently under attack (Ganz, Kay, & Spicer, 2018; Mcmullen & Warnick, 2016; Nicholls, 2010; Powell, Gillett, & Doherty, 2018). The skeptic of SVs claims that there is still little evidence about the social performances of these organizations (Zhao & Lounsbury, 2016) and rarely successful SVs have reached the scale to meet the magnitude of the societal challenges (Bocken, Fil, & Prabhu, 2016; Teasdale, Lyon, & Baldock, 2013). Therefore, scale remains a significant challenge for hybrid organizations (Kannothra et al., 2018; Palomares-Aguirre, Barnett, Layrisse, & Husted, 2018; Seelos & Mair, 2014).

Moreover, the concept of growth itself becomes less straightforward when referring to SVs (Asemota & Chahine, 2017; Davies, Haugh, & Chambers, 2018; Van der Byl & Vredenburg, 2015; Voltan & De Fuentes, 2016) because of their hybridity.

Size: growth in small businesses

A *size-change perspective of growth* dominates the entrepreneurship literature. Indeed, despite Penrose' attempt (1959) to differentiate between growth as an "increase in amount" and as an "internal process of development", almost all the models in entrepreneurship literature frame growth exclusively as a change size (DeSantola & Gulati, 2017; Dobbs & Hamilton, 2007; Evans, 1987; Furlan, Grandinetti, & Paggiaro, 2014; Lockett, Wiklund, Davidsson, & Girma, 2011; Schwab, Gold, Kunz, & Reiner, 2017). They explain the firm's growth using outcome-based indicators, which denote an increase in size or amount (Achtenhagen, Naldi, & Melin, 2010). For example, Achtenhagen et al. (2010) examined entrepreneurs' ideas on growth and listed the following: increase in sales, increase in the number of employees, increase in profit, increase in assets, increase in the firm's value and internal development.

An advancement of the "narrow understanding of growth as sheer volume expansion of existing activities" (Davidsson, Achtenhagen, & Naldi, 2010, p. 116) has been the identification of a new breed of growth modes falling in between organic and acquisitive growth (Davidsson et al., 2010; McKelvie & Wiklund, 2010). It involves strategic alliances, joint ventures (Ortiz-de-Urbina-Criado, Guerras-Martín, & Montoro-Sánchez, 2014), franchising (Shane, 1996) and licensing.

As a consequence, entrepreneurship literature has devoted much more attention to understand the determinants of growth and why some ventures growth more than others, to measure new venture growth and compare growth rates (Achtenhagen et al., 2017, 2010; McKelvie & Wiklund, 2010). Therefore, scholars emphasize the lack of studies attempting to analyze how firm grow, looking at the growth process (Demir, Wennberg, & McKelvie, 2017; Gupta, Guha, & Krishnaswami, 2013; Leitch, Hill, & Neergaard, 2010).

Scale: growing social impact

If growth in the business sector is conceptualized exclusively as growth in the size of the organization (Furlan et al., 2014; Shepherd & Wiklund, 2009), the different purpose of maximizing the a broader value for the society brings about new meanings for this concept (Davies & Simon, 2013; Dees, Anderson, & Wei-skillern, 2004; Phillips, 2006).

Thus, it is necessary to clarify which is the meaning of growth when it concerns SVs. In the discourse on social entrepreneurship (Bloom & Chatterji, 2009; Bloom & Smith, 2010; Bradach, 2003; Desa & Koch, 2014; Lyon & Fernandez, 2012; Weber, Kröger, & Lambrich, 2012), the growth process of SVs is always referred to as "scaling social impact", but a commonly accepted definition of what it means has yet to emerge (Cannatelli, 2017; Saebi et al., 2019; Wry & Haugh, 2018). Indeed, the literature on scaling SVs is still scarce and misses strong empirical evidence (Scheuerle & Schmitz, 2016). Dees (2008) provided the most acknowledged definition of scalability as "*increasing the impact a social-purpose organization produces to better match the magnitude of the social need or problem it seeks to address*". Waitzer & Roshan (2011), Clark, Massarsky, Schweitzer Raben, & Worsham (2012) and Davies & Simon (2013) confirm that the idea of growth has evolved from

scaling the organization to a broader perspective of increasing "the outcomes the organization has generated beyond just the organization itself' (Clark et al., 2012: 5). Many authors (Bradach, 2010; Davies & Simon, 2013; Lyon & Fernandez, 2012; Waitzer & Roshan, 2011) state that it is possible to grow an SV by using mechanisms that follow principles other than those used by conventional enterprises. Specifically, the 1990s' literature about non-profit and non-governmental organizations (Edwards & Hulme, 1992; Uvin & Miller, 1996) has introduced different possibilities where the impact can be expanded without making the organization lager (Uvin, Jain, & Brown, 2000). Consequently, on top of the strategies that imply an increased in the size of the organization itself, "scaling social impact" adds a set of opportunities where the scale is "judged not only in terms of its size, but also in terms of the number of spin-offs it created, the number of projects that have been taken over by other actors, and the degree to which it contributed to the social and intellectual diversity of civil society." (Uvin et al., 2000: 1418). Indeed, SVs can generate more social value use through replication, knowledge transfer or advocacy, which do not imply an increase in the size of the organization, such as. To put it in a nutshell, when the goal is increasing the level of fulfillment of a social need, i.e., social impact, growth might also occur outside the organization, without modifying its configuration, but just increasing the outcomes it produces.

A few works (Alvord, Brown, & Letts, 2004; Dees, Anderson, & Wei-skillern, 2004; Edwards & Hulme, 1992; Lyon & Fernandez, 2012; Mulgan, Halkett, & Sanders, 2007; Uvin, 1995; Uvin et al., 2000; Westley & Antadze, 2010) can be deemed as milestones in the literature on scaling strategies because they have conceptualized entirely new paths or mechanisms of scaling. All the others examinations are developed consistently with one of the previous frameworks (El Ebrashi, 2018; Moore, Riddell, & Vocisano, 2015; Vickers & Lyon, 2014; Westley, Antadze, Riddell, Robinson, & Geobey, 2014).

Analytical Framework: size versus scale

Having conceptualized the two different meanings of growth, this research wants to test the idea that the co-existence of the two drivers of growth – the impulse to dimensional growth of the commercial

logic and the impulse to increase the social value of social welfare logic - generates a trade-off situation. The trade-off implies that the SVs cannot pursue at the same time the strategy suggested by the social logic and that suggested by the commercial logic (Alberti & Varon Garrido, 2017; Siegner, Pinkse, & Panwar, 2018; Van der Byl & Slawinski, 2015; Wry & Zhao, 2018). In other words, we want to understand whether and when to obtain an increase in economic value an SV needs to give up a certain degree of positive social value and vice-versa.

To our knowledge, any study has fully addressed the question of the potential trade-off inherent in hybrid growth and its managerial implications. Davies et al. (2018) examine ten market-oriented SVs to identify the barriers that they experience in growing; however, they do not underline whether the barriers emerge from the misalignment between social and commercial growth. Fosfuri, Giarratana, & Roca (2016) and Wry & Zhao (2018) focuses on strategic challenges related to hybridity, but not in the context of the growth process. Few studies (Bauwens, Huybrechts, & Dufays, 2019; Bocken et al., 2016; Dobson et al., 2018; El Ebrashi, 2018; Mendoza-Abarca & Gras, 2017; Siebold, Günzel-Jensen, & Müller, 2018; Tasavori et al., 2018) attempted, through a case study approach, to jointly analyze for profit growth modes and scaling strategies of SVs or not for profit organizations. Bocken et al. (2016), despite confirming the importance of Ansoff's alternatives, underline that some strategies typical of a for-profit firm, such as increasing the frequency of purchase and attracting new customers, might not be suitable for SVs and identify two additional activities, *finding new types of* revenue and increasing the revenues per stream. Moreover, they report the use of diffusion of the model, replication and partnerships strategies in all three the case studies analyzed. Similarly, formal (franchising) and informal replication strategy was detected by Dobson et al. (2018) in their analysis of a social enterprise that has successfully scaled its operations to sixteen locations covering four continents.

Therefore, we try to fill this gap by testing the assumption that the co-existence of the driver of creating further social value and that of increasing economic returns generates a trade-off situation where the venture cannot follow both drivers at the same time (Figure 1).



Figure 1: Trade-off scenarios

To create the framework of analysis, we first need to operationalize social growth. Building on the literature related to scale social impact, we derived different operationalizations of social growth. They can be places on a continuum between the internal activities of the SV and the external market, which also implies different ways of profits appropriation for the SV (Figure 2). Below, we explain them using the example of IBakery, an SV who aims to include disabled people in the community through the creation of a team of able and disabled people serving bakery products and catering services to customers.

The first way a SV can socially grow is (a) when increasing the volumes of activities also generated more social impact (Organic Social Growth). Once, IBakery sells more bakery products, it could also employ more disabled people. However, this does not necessarily imply economic growth because the creation of social impact might generate additional costs or losses in terms of profitability. Then, (b) the halfway solution is when the SV reaches more beneficiaries because the solution is implemented by other organizations, which still need to share part of the economic value created with the SV. This could be the case if IBakery decides to open several coffee shops based on the same principles in different cities. The last option is (c) the generation of social impact through the dissemination of the solution, which is implemented free of charge by other entities. These would be considered a case of rivalry in a normal market situation; however, taking into account the goal of having more social impact, it turns to be a creation of additional social value.

Referring to the example of IBakery, if another SV opens a coffee shop in a nearby neighborhood, it is very likely that its commercial volumes would decrease; nevertheless, there is a positive contribution to the goal of including disabled people in that community.

The second assumption underpinning the theoretical framework is that the relationship between size and scale (commercial and social growth) is affected by the configuration of the business model implemented by the SV. Indeed, to support the achievement of their social mission, SVs can structure the business model in many different ways. Santos et al., (2015) outlined different hybrid business model building on the observation that some SVs serve beneficiaries who are able or willing to pay for the product/service and some who are not. This distinction originates two types of commercial models: one where clients and beneficiaries are the same and thus having more clients means having more impact on beneficiaries; a second one where there is not overlapping between clients and beneficiaries. In the first case (overlapping between clients and beneficiaries), the main source of revenues is very likely to be the selling of product and services; in the second case (not overlapping), the revenues from the market might be complemented by other non-market sources of capital to sustain the additional costs related to the generation of social impact (Defourny & Nyssens, 2017).

A. ORGANIC SOCIAL GROWTH	B. SOCIAL GROWTH by REPLICATION	C. SOCIAL GROWTH by DISSEMINATION
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ORGANIZATION

MARKET

Figure 2: Social Growth Continuum

Methods

To address the research objective, the study performs an analysis of primary data collected through a survey targeting SVs in Italy. In this section, we provide information about the sample selected for the analysis, the process employed to collect the data and the different steps of the exploratory data analysis, which inform the research questions.

Sample and Data collection

The target population includes organizations operating in areas of social need, which are allowed to engage in commercial activities by the Italian legal framework. They have been identified as those registered according to three different laws: the Law 381/1991 that regulates the legal form of social cooperatives; the Legislative Decree 155/2006 that disciplines the label of "ex lege social enterprises (SEs)"; and the Legislative Decree 179/2002 that establishes the label of "start-up innovative a vocazione sociale(SIAVs) ". The three laws are compliant with the definition of social ventures because they imply a social mission lock for the organization, so the social orientation is mandatorily required and verified; and they perform commercial activities, in some cases under the constraint of reinvesting the profits. The Italian legally recognized social ventures are 9,204 organizations as extracted from the AIDA database (for social cooperatives) and the Register of the Chamber of Commerce (for SEs and SIAVs) (accessed May 2017)¹. The overall population is composed as follow: 8000 social cooperatives, 1087 social enterprises, 117 SIAVs. The population includes both active and failed ventures. Then, given the heterogeneity of the population, we applied a stratified random sampling using three variables to set the strata: legal status (social cooperative, ex-lege social enterprises, and SIAVs); location (North, Centre or South); size (measured in terms of the number of employees). Specifically, the random sample size was computed based on the sampling equation with 95% confidence level and - 1.25/+1.25% margin error, resulting in the sample size of 3,682 representing about 40% of the population size. This method helps to increase the solidity of our results ensuring the representativeness of the sample and, thus, the generalizability of the results.

We developed a questionnaire composed of 48 questions, and we administered the survey online using the software SurveyMonkey. The questionnaire has been sent to e-mail addresses publicly

¹ The merger of the three sources resulted in a sum of 9,423 organizations; then, we erased the overlaps between the different lists and organizations with missing data and ended up with 9, 204 organizations.

available on the website of the organizations, clearly stating that the research should be filled in by the founder/s or managers of the enterprise. We collected 456 completed answers (about 12% response rate).

Given the previous quantitative efforts at European level targeting SVs (Lyon & Sepulveda, 2009; Rey-Martí, Ribeiro-Soriano, & Palacios-Marqués, 2016; Scheuerle, Schmitz, Spiess-Knafl, Schües, & Richter, 2015) the response rate can be considered adequate.

Measures

Building on the framework introduced in the theoretical section, we first define the two main constructs the research wants to explore, namely *social growth* and *commercial growth*. To operationalize the growth mechanisms in terms of social impact, we combine four different answers from the survey that were not mutually exclusive (Table 1). We asked whether, in the preceding two years (2015-2016), the organization had increased the number of beneficiaries of the same category already served or had served *new types of beneficiaries*. We use these two answers as indicative of social growth and, given they might be anyhow related to the size of the organization, we add other answers to describe the three types of social growth as identified in the framework (Figure 2). The SVs that reported having had more beneficiaries or new beneficiaries without using the two outsourcing strategies have been classified as Organic Social Growth (a). Social Growth by *Replication* (b) is meant when the solution of the organization is implemented by other organizations with a defined agreement between them and the SV; and Social Growth by Dissemination (c) refers to the question about whether the product/service/model is implemented by other organizations without a defined agreement between them and the social venture. These last two scaling strategies might be undertaken without any dimensional change of the organization (Dees, Anderson, & Wei-skillern, 2004; Westley et al., 2014).

(Morebe	1 = 297	0 = 159	
A. O [(Morebeneficiaries==1) (New	1 = 191	0 = 265	
OUTSOURCED SOCIAL	B. REPLICATION ((Morebeneficiaries==1) (Newbeneficiaries==1)) & (Replication==1) & (Dissemination==0)	1 = 30	0 = 426
GROWTH	C. DISSEMINATION ((Morebeneficiaries==1) (Newbeneficiaries==1)) & (Replication==0) & (Dissemination==1)	1 = 44	0 = 412

Table 1: Description of the different measures of the variable social growth

Commercial growth was measured by computing the average growth rate in two years of the total revenues from product and services and Return on Sales (ROS) (Gruenwald, 2015). The increase in the total revenues from product and services explain the increase in the volumes of commercial activities; while, the increase of the ROS is an index of increase in the profitability. We used the continuous measure and we also created a three-level categorical variable for commercial growth with total revenues (*CGTotRev*) and Return on Sales (*CGROS*).

To describe the possible hybrid business models, coherently with Santos et al. (2015), we included a variable related to whether clients overlap with beneficiaries. Then, we considered different types of revenues sources (Defourny & Nyssens, 2017) and all the potential financial sources accessible by an SV ranging from pure repayable finance to pure grants (Achleitner & Spiess-Knafl, 2014). Lastly, we tested the role of the different growth strategies as described in the section on the literature review.

LCA Question	Organizational	Measure	Туре
Clusters	Aspects		
QC1	Revenues Sources	Types of clients: Individual Client Public Institution Private Organization Non-Profit Organization Subsidizing Public Institution Subsidizing Private Organization Subsidizing Non-Profit Organization	Binary – more than one answers
QC2	Financial Sources	Founder Revenues Individuals' Donations Corporation Donations Foundation Grants Public National Grants Public National Contract Public Local Grants	Binary – more than one answers

		Public Local Contract	
		Venture Capital	
		Loan	
		Having pursued a specific strategy in the last	
		two years (2015-2016):	
		National sector expansion	
		National geographical expansion	Binary – more than one
	Growth Strategies	International expansion	
		Increased volumes	
		New products/services	
QC3		Improve quality	
		Affiliation	allswers
		Franchising	
		Network	
		Sector network	
		Partnership	
		Merger & Acquisition	
		Advocacy	

Table 2: Description of variables used in the LCA

Data Analysis

To explore the research question, we performed three steps of analysis: (1) association analysis between social growth and commercial growth; (2) a latent class analysis (LCA) for the variables related to the business model and growth modes; (3) post-LCA association analysis to understand whether the different typologies in terms of business model (revenues and financial sources) and growth modes are associated with social and commercial growth. We conducted the association analysis using Pearson's chi-squared test and Probit model. Secondly, we wanted to identify one or more different subgroups of SVs showing similar characteristics with regard to the implemented business model and growth modes. The latent class analysis (LCA) was considered the appropriate method because it is a statistical technique, belonging to the body of finite mixture modeling, allowing to identify and describe unobserved groups, called latent classes, in a large set of data based on responses to a set of observed indicators (Muthén, 2004; Nylund-Gibson & Choi, 2018). We chose LCA against other clustering methods because it solves the issues of clustering with binary and categorical variables (Muthén & Asparouhov, 2002); indeed, it is a "model-based clustering" approach, namely it does not use specific distal measures, but it derives the model from the distribution of data and, based on that, estimates the probabilities that certain observations are members of certain latent classes. Moreover, unlike clustering, it is possible to assess the goodness

of the fit of the model (Hagenaars & McCutcheon, 2002). The latent class analysis was performed using the software Mplus.

In our analysis, the latent classes are typologies of SVs that exhibit specific patterns related to the revenues sources, financial sources and growth strategies. The binary latent indicators of the latent classes in the six different QCs^2 are summarized in Table 2.

A crucial step in performing the LCA is deciding on the proper number of classes within a dataset and the overall fit of the model. So far scholars have not reached an agreement on one single best method (Boyce & Bowers, 2016) to define the correct number of classes. However, the most commonly used fit indices are Bayesian Information Criterion (BIC); Sample-size Adjusted Bayesian Information Criterion (SABIC); Consistent Akaike Information Criterion; Vuong-Lo-Mendell-Rubin Likelihood Ratio Test (VLMR-LRT); Bootstrap Likelihood Ratio Test (BLRT) (Nylund, Asparouhov, & Muthén, 2007). The first three belongs to the group of information criteria where lower values point to a better fit (Morgan, 2015); if the values continue to decrease when adding one more class, it is possible to identify the point where there is a significant change in the diminishing value. The last two are, instead, the likelihood-based tests which allow assessing on the base of the *p*-value whether the model with k classes fits better than the one with k-1 classes. For each QC, we iterated the analysis until the fit indexes converge toward a satisfactory solution that was also possible to coherently interpret according to the theoretical assumptions. After deciding the number of classes, there are two crucial parameters to take into account: the relative size of the latent classes and the item probabilities. The first one indicates the proportions of entities in a single latent class; while, the second ones are similar to factor loadings and describe the relationship between each indicator and the latent categorical variables (plots with item conditions probabilities are included in Annex 1).

² QC stands for Cluster of Questions. It means we analyzed together with the responses related to questions addressing all the same specific aspect.

Lastly, once having identified the most appropriate solution, it is crucial to assess the extent to which the classes are well identified. The index of entropy and Average Posterior Probabilities (AvePP) suggests a clear delineation of classes when the value approaches one (Celeux & Soromenho, 1996).

In Table 6, we report the selected number of latent classes, the fit statistics and the entropy values for the selected solution of each QC; whereas, the complete set of fit indexes calculated for each *k*-*solution* of the different QC and the tables of AvePP are included in Annex 1. In third and last step of the analysis, we again conduct Pearson's chi-squared test on the six latent class variables (one for each QC) resulted from the LCA to assess the association of the different typologies among them and with social and commercial growth (tables with Chi-squared values are outlined in Annex 2).

Results

In the present study, we set out to investigate whether there is a growth trade-off inherent in the twofold mission, social and commercial, of SVs. The purpose of the research suggests an exploratory analysis of the data; therefore, we performed an associations and latent class analysis on the responses provided by 456 Italian SVs.

Descriptive analysis

We outline some descriptive statistics of the sample concerning social and commercial growth variables coherently with the trade-off scenarios described in Figure 1. Referring to social growth, 54% of SEs stated to have gained more beneficiaries of the same type already served; and 38% to have reached new categories of beneficiaries.

In the sample, 83 SVs do not grow either socially or commercially. Conversely, 190 organizations do not apparently experience any trade-off since they showed an increase in the social value and commercial activities. However, 51% of them show a positive but very low level of commercial growth.

The core of analysis consists of 183 SV which experienced a trade-off because they grew socially but not commercially or vice versa.

Concerning the "outsource" types of social growth, 9% of organizations used only replication strategy, 14% only the dissemination one and 33% one of the two.

In Figure 3, we plot the distribution of the variable related to commercial growth in terms of revenues from the selling of product and services.



Figure 3: Density Plot of Total Revenues over Social Growth

Considering the business model, 84% of respondents state that revenues from the selling of product and services is their first source of revenues; while 67% has an overlapping between clients and beneficiaries.

Pre-LCA Association Analysis

In this step, we carried out Pearson's chi-square tests on all the variables representing social and commercial growth and, secondly, we repeated the tests for each of the two categories of the variable *Overlapping between clients and beneficiaries*.

Considering the different measure of social growth, the relation with commercial growth in terms of volumes of activities holds when we consider only *Organic Social Growth*; while, it withdraws once we include replication and dissemination (Table 3). When using the continuous measure of commercial growth, only the association with *Social Growth by Replication* exhibit a statistically significant F in the ANOVA (Table 4).

Moving to the business model proxy, *Social Growth by Replication* has a stronger relation with commercial growth when clients and beneficiaries overlap. *Organic Social Growth* losses its association with commercial growth when clients and beneficiaries do overlap (Table 5).

To deepen the influence of replication and dissemination, we regress a *probit* model where the dependent variable is *Social Growth*³ and the independent variables are *Total Revenues* (categorical), *Dissemination*, and *Replication*. The marginal effects confirm a positive relation between social growth and commercial growth in terms of revenues (Figure 4).

This first round of test concludes that overall an increase in the social value created is related to an increase in the volumes of commercial activities, but not in the profitability, of the SV. This association becomes looser when the SV uses mechanisms that outsource the generation of social impact. Indeed, generating social value through dissemination is completed unrelated to the increase of the volumes of the activities. Also, replication is less likely to generate further revenues if the clients are different from beneficiaries. Lastly, the lack of association between *Organic Social Growth* and commercial growth when clients and beneficiaries overlap means that an increase in the volume of activities do not necessarily imply an increase in the number of beneficiaries, and, in turn, more social impact.

Var/Chi2	CGTotRev	CGROS
Organic Social Growth	8.6758*	1.2679
Social Growth by Replication	5.5876	0.8879
Social Growth by Dissemination	0.5433	0.1390

* Significance <0.05 ** Significance <0.01

Table 3: Pearson's Chi-square test between Social vs Commercial Growth

CGTotRev	CGROS
0.00	0.01
4.02*	0.28
0.00	0.02
	0.00 4.02* 0.00

*Significance <0.05 ** Significance <0.01

 Table 4: Anova between Social vs Commercial Growth

-	Pearson	'S	<i>Chi-square test</i>
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Var/Chi2	Clients = Beneficiaries (67%)	Clients \neq Beneficiaries (33%)			
	CGTotRev				
Organic Social Growth	2.3042	16.6535 **			
Social Growth by Replication	13.2056**	6.9079*			
Social Growth by Dissemination	0.3772	0.2208			
CGROS					

³ This variables includes all SVs reported more beneficiaries or new beneficiaries, without distinguishing between the different mechanism of social growth.

Organic Social Growth	0.4243	0.8041
Social Growth by Replication	0.2518	1.6239
Social Growth by Dissemination	1.7635	2.3257

*Significance <0.05 ** Significance <0.01

Table 5: Pearson's Chi-square test between Social vs Commercial Growth

. margins, dydx(*)

Average marginal effects Number of obs = 456 Model VCE : OIM

Expression : Pr(SocialGrowth), predict()
dy/dx w.r.t. : CGTotRev Replication Dissemination

	dy/dx	Delta-method Std. Err.	z	P> z	[95% Conf.	Interval]
CGTotRev	.127647	.0262006	4.87	0.000	.0762948	.1789993
Replication	.0570915	.0600181	0.95	0.341	0605419	.1747248
Dissemination	.0473429	.0545536	0.87	0.385	0595801	.154266

Figure 4: Marginal effects of problit model

Latent Class Analysis

In the second step, we conduct a latent class analysis considering some proxies of the business model configuration and the growth modes implemented by the SV. Notably, we group clusters of questions in the survey (QC) related to revenues sources, financial sources and growth strategies. Table 6 exhibits for each QC the solution we chose after the reiteration of tests with more than one class (Jung & Wickrama, 2008; Muthén, 2004), and the fit statistics. In this section, we describe the meaning of identified latent class variables in relation to the indicators.

QC1 considers the following latent class indicators: *Individual Client, Public Institution, Private Organization, Non-Profit Organization, Subsidizing Public Institution, Subsidizing Private Organization, Subsidizing Non-Profit Organization.* In this case, we selected a four-class solution because it was where we detected a significant elbow in the diminishing trend of fit indices and it had a relevant level of entropy. The results indicate four types of revenue sources used by social ventures. First, those organizations that rely on the private market, both in terms of individuals or companies, in selling their products or services; conversely, in the second class there are SVs do their entire business with the public sector. Then, we have a group in between these last two, which mixes both public and private sources of revenues. The last group, instead, is populated by enterprises working as subcontractors of other public or private institutions. We examined sources of capital for SVs in QC2. The different sources we considered are *Founder*, *Revenues*, *Individuals' Donations*, *Corporation Grants*, *Foundation Grants*, *Public National Grants*, *Public Local Grants*, *Public National Contract*, *Public Local Contract*, *Venture Capital*, *Loan*. In this case, we prefer the solution with four classes, since the next one shows the first non-significant *p-value* for the LMR test and a positive change in BIC. We have two classes of SVs, which can be considered economically sustainable. 36% of SVs are self-sustainable meaning that they rely on revenues generate from commercial activities and, in some cases, they turn to loans. Then, we have the group of those earning from public procurement. On the contrary, the last two classes have grants from public institutions (13,6%) and foundations, corporations, and individuals (30,3%) as the first source of funding.

In QC3, despite the entropy just approaches the recommended level, we sorted the solution with three classes because both BIC and LMR test converges on this option. The three classes are labelled as *Market Penetration* (32,8%); *Alliances* (38,3%); *Scaling deep* (28,9%). The least satisfying in terms of classification probabilities for latent class membership is the third one with a value of 0.879. The SVs in this third class (*Scaling Deep*) score low in the pursuit of almost all strategies; they sometimes do expand in other sectors at the national level and improve the efficiency and effectiveness of the services already in place. The *Alliances* class mostly grow its impact engaging in network and partnerships and expanding geographically at the national level. It was the only one that also expanded at the international level. The last class shows a very structured and organic approach to growing impact. Indeed, they increased the volumes of existing products, developed new ones and all of them expand their impact in other sectors at the national level.

LCA QCs	K	Classes	BIC ¹	AIC ²	SABIC ³	-Log Likelihood ⁴	p LMR Test ⁵	Entropy ⁶
QC1 RevSources	4	Totally private market based Totally public support based Subsidization Mixed public-private	· 3,333.314	3,205.517	3,234.930	-1571.758	0.0000	0.921
QC2 FinSour	4	Public Contract Public Grants Private Grants Self-sustainable	4,442.892	4,249.135	4,293.729	-2,077.567	0.0287	0.791
QC3 GrStrat	3	Market penetration Alliances Scaling Deep	5,655.200	5,486.178	5,525.080	-2,702.089	0.0077	0.794

 Table 6: Latent Class Analysis QCs and Fit Statistics

Note: ¹Bayesian Information Criterion; ²Consistent Akaike Information Criterion; ³Sample-size Adjusted Bayesian Information Criterion; ⁴Log Likelihood; ⁵Vuong-Lo-Mendell-Rubin Likelihood Ratio Test; ⁶ Goodness threshold >0.8.

Post-LCA Association Analysis

The LCA allows identifying different typologies of SVs concerning the business model and growth strategy. Building on that, the third step of the analysis performs Pearson's chi-square (reported in Annex 2) between the latent class variables and social and commercial growth.

Referring to the business model proxies, only those SVs whose commercial model benefits from public funding are more likely to grow the social value. On the other hand, the financial structure seems to not affect the relationship.

Moving to growth strategies, both market penetration and scaling deep types are strongly associated with social growth. In particular, SVs implemented market penetration strategies had organic social growth and also an increase in the volumes of activities. The SVs in the group labelled as "scaling deep" mostly relied on improving the effectiveness of the existing offering, building partnership and conducting advocacy activities. Surprisingly, also these strategies are likely to bring both social and commercial growth.

SV'S TYPOLOGIES		SOCIAL GROWTH	COMMERCIAL GROWTH
Revenues Sources		<i>Totally public support based</i> SVs are more likely to have an organic social growth	No statistically significant association
Financial Sources		No statistically significant association	
Growth Strategies	Market penetration	SVs embracing <i>Market penetration growth</i> <i>strategies</i> are more likely to have an organic social growth	SVs embracing <i>Market penetration growth</i> <i>strategies</i> are likely to grow commercial activities
	Alliances	No statistically significant association	
	Scaling deep	SVs embracing <i>Scaling deep</i> growth strategies are likely can both have an organic social growth or through replication and dissemination.	SVs embracing <i>Scaling deep</i> growth strategies are likely to grow commercial activities.

 Table 7: summary of relevant results of Post-LCA Association Analysis

Discussion

Given the exploratory nature of the research, which, as to our knowledge, is the first quantitative examination of hybrid growth, in the findings section, we touched many different points. Hereafter, we try to summarize the most informative results for the research questions.

Recalling the first research question of this work, whether hybrid growth implies a trade-off situation,

the results help to enlighten different aspects.

First, the existence of a hybrid approach to growth has been verified since we found a statistically significant relationship between social growth and commercial growth. Conversely, the lack of association with the growth in terms of profitability (ROS) suggests that hybrid growth might imply some unforeseen costs to be sustained that organizations should take into account. Moreover, once the social growth is "organic" there is not the trade-off because an SV which increases the number of beneficiaries is more likely to increase also its revenues (Table 3). Therefore, the social mission does not imply a productivity problem. The replication of the analysis distinguishing between those SVs whose beneficiaries are also the clients and those whose not (as shown in Table 5) allows disentangling a little bit more the issue. Indeed, when clients and beneficiaries are not the same, there is an association between social and commercial growth and vice versa. On one side, this means that, even in the more complex types of business model where the SV should take into account separately of social impact (beneficiaries) and economic value (clients), there is the opportunity to pursue a joint growth. On the other side, the lack of association when clients and beneficiaries are the same is surprising. A possible explanation might be that most of the SVs achieving social growth, actually, accounts for sources of revenues that are not market-based. This could raise a problem of economic sustainability in the long run. Indeed, SVs with this business model might help to address market failure, but they still need to rely on the support of the public sector, which however is steadily withdrawing due to budget constraints.

Once we introduced the two "hybrid mechanisms" of replication and dissemination, an increase in social impact does not imply an increase in the revenues from the selling of product and services. This might be a trade-off situation because it could happen that the SV drift towards the increase of social impact disregarding the increase in the commercial activities and, thus, financial sustainability (Bruneel et al., 2016; Van der Byl & Vredenburg, 2015). As expected, this is stronger for dissemination (Chi-square less than one) and a bit smoother for replication where we found a relationship with the continuous variable of revenues (Table 4).

Moving to the findings on the typologies of the business model and growth strategies, they might represent guidelines for SVs in planning their growth.

The results in terms of growth revenues confirm the idea that, so far, social growth is still enabled by the support of the public sector, either through contract or subsidizing the beneficiaries.

The strategies of market penetration and scaling deep are both viable solutions for SVs to address the social mission and economic sustainability because they are both associated with both social and commercial growth. However, while this result is quite obvious for market penetration, the explanation for the "scaling deep" strategies is less straightforward.

Conclusions

Far to provide a definitive answer to a complex problem, this study spots the light on a theme that is becoming more and more relevant for every business worldwide. We investigated a novel notion of growth that blends social and economic value creation. The current trend suggests that it is very likely that in the near future every company worldwide will need to understand how to implement a growth process that integrates social impact and financial return (Schwab et al., 2017). Indeed, CSR activities are becoming part of the core business of corporations (Arena, Azzone, & Mapelli, 2018) and the market of sustainable investments growing at an impressive pace. Therefore, the current study contributes by quantitatively investigating whether there is a trade-off between increasing social and economic value, exploring different configurations in terms of business model and growth strategy. To address this question, we performed an association and latent class analysis on the data collected through a survey submitted to more than 3,600 social ventures in Italy.

The insights of this study add to the literature on hybrid organizations and firms' growth in the following ways. So far research on hybrid organizations, in particular, those studies focusing on growth (Pache & Santos, 2013; Siegner et al., 2018; Smith et al., 2013; Van der Byl & Vredenburg, 2015; Voltan & De Fuentes, 2016) has been mostly conceptual or qualitative (Arena, Bengo, Calderini, & Chiodo, 2018; Lortie & Cox, 2018; Scheuerle & Schmitz, 2016). This work is, to our
knowledge, one of the few quantitative studies on hybrids and SVs and the first, which conceptualizes and measures social growth. Moreover, we outline different patterns of SVs and link specific organizational types to social growth. In doing so, we underscore which characteristics in terms business model and strategy are more likely to bring an increase of the social impact generated, and at the same time, being economically sustainable. Therefore, these findings might represent guidelines from managers of ventures in setting the goal and strategy of their growth.

Lastly, we test the hybrid business model classification provided by Santos et al. (2015). The paper gives some suggestions on how companies can structure their business model to generate social impact, which increasingly will be needed to achieve sustained value creation (Achtenhagen, Melin, & Naldi, 2013; Davies & Chambers, 2018; Kuratko, McMullen, Hornsby, & Jackson, 2017; Palomares-Aguirre et al., 2018).

Scholars (McKelvie & Wiklund, 2010) emphasize the scarcity of studies on how companies grow compared to those focused on how much they grow (growth rate and its determinants). Besides, current research on the firm's growth is stuck on investigating two growth modes, organic growth and growth by acquisitions (Achtenhagen, Brunninge, & Melin, 2017).

Answering to the call by McKelvie & Wiklund (2010), this research can contribute to the literature analyzing growth as a process including a new dimension of analysis, i.e., "social impact", which opens new hybrid modes of growth (Shane, 1996) that would not necessarily be captured in studies of firm's growth. We introduce and test the existence of a novel way of growth that is not translated only in the dimensional increase of the organization but implies other consequences and modes. We also check whether growth modes typical of the firm's growth and other new strategies inherited from not for profit sector are suitable for a hybrid growth; this paves the way for a stream of research that goes more in-depth in understanding the effectiveness of hybrid growth modes, both in terms of economic sustainability and broader effect on society.

Besides the theoretical and practical implications, the current study has one main limitation related to the empirical setting. We analyze data about organizations locate in one single country, Italy. Given

the relevance of institutional factors in the firm's growth (Doern, 2009; O'Gorman, 2006; Prats, Sosna, & Velamuri, 2012), this might be considered a bias in the results. Nevertheless, we designed a methodology that could be easily replicated in other contexts; cross-countries comparisons are an interesting avenue for future researchers.

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ANNEX 1 – LCA RESULTS

1. QC1 – REVENUES SOURCES

Indicators = Individual Client, Public Institution, Private Organization, Non-Profit Organization, Subsidizing Public Institution, Subsidizing Private Organization, Subsidizing Non-Profit Organization

Class1= Totally private market based (12,2%); **Class2** = Totally public support based (22,6%); **Class3** = Subsidization (31,5 %); **Class4** = *Mixed public-private* (33,8%)

a) Fit Statistics for different k solutions

K (classes)	BIC ¹	AIC ²	SABIC ³	-Log Likelihood ⁴	<i>p</i> LMR Test ⁵	Entropy ⁶
2	3,623.072	3,561.234	3,575.466	-1,765.617	0.0000	1
3	3,474.808	3.379.990	3,401.813	-1,666.995	0.0000	0.902
4	3,333.314	3,205.517	3,234.930	-1,571.758	0.0000	0.921
5	3,288.870	3,165.097	3,128.093	-1,525.047	0.0000	0.954
6	3,258.518	3,064.760	3,109.355	-1,485.380	0.2210	

Note: Bayesian Information Criterion; ²Consistent Akaike Information Criterion; ³Sample-size Adjusted Bayesian Information Criterion; ⁴Log Likelihood; ⁵Vuong-Lo-Mendell-Rubin Likelihood Ratio Test; ⁶Goodness threshold >0.8.

b) Average Latent Class Probabilities for Most Likely Latent Class Membership (Row) by Latent Class (Column)

	1	2	3	4
Totally private market based	0.992	0.000	0.008	0.000
Totally public support based	0.000	0.946	0.037	0.018
Subsidization	0.000	0.006	0.980	0.015
Mixed public-private	0.000	0.000	0.044	0.956

c) Indicators probabilities plot for the 4 class solution



2. QC2 - FINANCIAL SOURCES

Indicators = Founder, Revenues, Individuals' Donations, Corporation Grants, Foundation Grants, Public National Grants, Public Local Grants, Public National Contract, Public Local Contract, Venture Capital, Loan

Class1= Public Contract (20,1%); Class2 = Public Grants (13,6%); Class3 = Private Grants (30,3%); Class4 = Selffinanced (36%)

a) Fit Statistics for different k solutions							
K (classes)	BIC ¹	AIC ²	SABIC ³	-Log Likelihoo			
	1 5 1 1 0 2 5	1 1 1 6 0 0 7	1 1 50 0 00	2 200 101			

K (classes)	BIC ¹	AIC ²	SABIC ³	-Log Likelihood ⁴	p LMR Test ⁵	Entropy ⁶
2	4,541.025	4,446.207	4,468.030	-2,200.104	0.2612	0.764
3	4,452.299	4,308.012	4,341.221	-2,119.006	0.0159	0.747
4	4,442.892	4,249.135	4,293.729	-2,077.567	0.0287	0.791

5	4,463.873	4,220.646	4,276.626	-2,051.313	0.2835	0.849	
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Note: ¹Bayesian Information Criterion; ²Akaike Information Criterion; ³Sample-size Adjusted Bayesian Information Criterion; ⁴Log Likelihood; ⁵Vuong-Lo-Mendell-Rubin Likelihood Ratio Test; ⁶Goodness threshold >0.8.

b) Average Latent Class Probabilities for Most Likely Latent Class Membership (Row) by Latent Class (Column)

	1	2	3	4
Public Contract	0.891	0.034	0.021	0.053
Public Grants	0.028	0.866	0.008	0.098
Private Grants	0.024	0.012	0.952	0.013
Self-financed	0.033	0.033	0.059	0.876

c) Indicators' probabilities plot for the 4 class solution



3. QC3 – GROWTH STRATEGIES

Indicators = National sector expansion, National geographical expansion, International expansion, Increased volumes, New products/services, Improve quality, Affiliation, Franchising, Network, Sector network, Partnership, Merger & Acquisition, Advocacy

Class1 = Market Penetration (32,8%); Class2 = Alliances (38,3%); Class3 = Scaling deep (28,9%);

a) Fit Statistics for unrerent k solutions								
K (classes)	BIC ¹	AIC ²	SABIC ³	-Log Likelihood ⁴	<i>p</i> LMR Test ⁵	Entropy ⁶		
2	5,670.218	5,558.911	5,584.529	-2,752.455	0.0000	0.749		
3	5,655.200	5,486.178	5,525.080	-2,702.089	0.0077	0.794		
4	5,695.632	5,468.895	5,521.079	-2,679.447	0.0796	0.776		
5	5,736.836	5,452.384	5,517.852	-2,657.192	0.4680	0.754		

a) Fit Statistics for different k solutions

Note: ¹Bayesian Information Criterion; ²Akaike Information Criterion; ³Sample-size Adjusted Bayesian Information Criterion; ⁴Log Likelihood; ⁵Vuong-Lo-Mendell-Rubin Likelihood Ratio Test; ⁶Goodness threshold >0.8.

b) Average Latent Class Probabilities for Most Likely Latent Class Membership (Row) by Latent Class (Column)

	1	2	3
Market Penetration	0.933	0.050	0.017
Alliances	0.005	0.917	0.078
Scaling deep	0.019	0.102	0.879

c) Indicators' probabilities plot for the 3 class solution



ANNEX 2 – POST LCA ASSOCIATION ANALYSIS

Dummy variables of the single class (extracted from the latent class variable of the solution) with Social and Commercial Growth

QC1) Revenues Sources

-	Pearson'	's Chi-square	test

Var/Chi2	Totally private	Totally public	Subsidization	Mixed public-private
	market based	support based		
Organic Social Growth	2.5703	5.2233*	0.0914	0.4187
Social Growth by Replication	0.1551	1.9035	0.2142	1.1276
Social Growth by Dissemination	0.4600	0.9256	0.1144	0.5146
CGTotRev	0.9894	5.2414	0.0737	2.2109

*Significance <0.05 ** Significance <0.01

- Anova

	,			
Var/F	Totally private market based	Totally public support based	Subsidization	Mixed public- private
CGTotRev	3.02	2.00	0.10	0.13

*Significance <0.05 ** Significance <0.01

QC2) Financial Sources

- Pearson's Chi-square test

Var/Chi2	Public Contract	Public Grants	Private	Self-financed
			Grants	
Organic Social Growth	1.9525	0.3582	0.3218	1.5981
Social Growth by Replication	1.9928	0.3460	0.9303	0.0221
Social Growth by Dissemination	0.0960	0.1372	0.1951	0.0101
CGTotRev	1.3454	0.4145	2.0727	3.2822

*Significance <0.05 ** Significance <0.01

QC3) Growth Strategies

- Pearson's Chi-square test

Var/Chi2	Market Penetration	Alliances	Scaling deep
Organic Social Growth	36.4905**	2.4529	21.7619**
Social Growth by Replication	3.4484	1.3957	10.2434**
Social Growth by Dissemination	0.3817	3.7546	7.3207**
CGTotRev	14.7690**	1.5306	28.3443**

*Significance <0.05 ** Significance <0.01

- Anova

Var/F	Market Penetration	Alliances	Scaling deep	
CGTotRev	4.36*	1.09	11.06**	
*Significance <0.05 ** Significance <0.01				

*Significance <0.05 ** Significance <0.01

ANNEX 2

PAPER 2: Unlocking finance for social tech start-ups: is there a new opportunity space?

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Unlocking finance for social tech start-ups: Is there a new opportunity space?



Marika Arena, Irene Bengo*, Mario Calderini, Veronica Chiodo

Department of Management, Economics and Industrial Engineering, Politecnico di Milano, Italy

A R T I C L E I N F O

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ABSTRACT

This paper performs a critical analysis of the financial instruments that can be employed to fund social innovation, with a specific focus on social tech start-ups that develop and deploy technology-driven solutions to address social needs in a financially sustainable manner. The paper analyses how these start-ups can access financing, the barriers to financing that these organisations experience and the financial instruments that are most suitable to address their financial needs. Social tech start-ups have many points of overlap with high-tech start-ups in terms of the barriers they encounter to financing in different lifecycle stages. Still, the institutional solutions that are commonly exploited by high-tech start-ups for growth are not enough to support social tech start-ups to scale. Therefore, we introduce the concept of SII and discuss its potential contribution to the social tech finance landscape. Then, using the case of social tech start-ups as paradigmatic of the broader problem of financing mechanisms for social innovation, we formulate a research agenda, including directions for research and theoretical development in the field of SII.

1. Introduction

The debate on the emergence of a new entrepreneurial genre – social tech start-ups – is fuelled by an increasing number of examples of entrepreneurial initiatives that can be defined as either high-tech startups or social enterprises, depending on the perspective used to investigate their multifaceted nature.

Pedius is a successful tech-intensive start-up that offers a service allowing deaf or hard-of-hearing people to make phone calls. The Pedius business model is centred on a communication system based on speech recognition and synthesis technologies, and the company allows access to its service to anyone in need. It offers a free plan in which each account is granted 20 min per month without paying a fee, as well as two tariff plans that imply a 5 euro fee for 100 min of calls and a 30euro yearly fee that covers unlimited calls (fees accessed 20 December 2016). The strategic positioning and pricing strategy reflect a business approach that is somewhat mediated by a clear commitment to social impact objectives, which explicitly coexist alongside business objectives. The hybridisation of its mission and objectives has not prevented Pedius from performing in business terms, strictly speaking. The idea for Pedius was conceived in 2012; in 2016, Pedius was active in 9 countries, counting 8 full-time employees and 12,000 users. In addition, Pedius has been able to attract the interest of investors, receiving equity investments of over one million euros.

A second example that is often included among successful hybrid social ventures is MarioWay, the upright revolution. MarioWay created an innovative type of wheelchair that can be driven without using one's hands, is fully customisable to consider user characteristics and allows the user to assume a standing position. In so doing, this new tool provides both health and relational benefits to disabled people. Indeed, allowing disabled people to live their everyday lives in a standing position enhances their sense of inclusion in society. MarioWay was founded in 2013, and it is currently preparing to introduce its innovative product to the market. In 2015, the European Investment Bank named MarioWay as one of the best socially innovative ideas in Europe, and it received a round of capital from business angels.

These companies are two examples among many social tech startups, which represent a new generation of ventures. It is still rather premature to consider such examples archetypes of a new entrepreneurial genre, but these companies demonstrate recurring features that are highly likely to become distinguishing features of the social tech start-up model of entrepreneurship. One feature is certainly the characteristics of these new ventures that, combined with technology (knowledge) intensity, make these initiatives very similar to the traditional definition of high-tech start-ups. The other one is hybridity, or a blended-value mission, which is generated by the coexistence of social impact objectives and business objectives.

Similar to high-tech start-ups, social tech start-ups are newly

* Corresponding author. *E-mail addresses:* marika.arena@polimi.it (M. Arena), irene.bengo@polimi.it (I. Bengo), mario.calderini@polimi.it (M. Calderini), veronica.chiodo@polimi.it (V. Chiodo).

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created organisations that are in the initial stages of their lifecycles and that leverage technology to develop new products and services (Desa and Kotha, 2006; Kamariah et al., 2012). However, their distinctive feature – compared to other high-tech start-ups – is that they specifically aim to "develop and deploy technology driven solutions to address social needs in a financially sustainable manner" (Desa and Kotha, 2006). This feature – i.e., the twin cornerstone of intentionally addressing a social need and safeguarding financial return – associates these ventures with social enterprises (SEs), which are commonly defined as organisations that seek to achieve their primary objectives – which are social in nature – through enterprise and trading (Austin et al., 2006; Haugh, 2007). SEs' disruptive idea is the ability to generate a new business model that is grounded in the provision of goods and/or services that address unmet social needs (Hynes, 2009).

Clearly distinguishing SEs from other organisations is challenging because SEs are hybrid entities that combine aspects of multiple organisational forms (Battilana and Lee, 2014; Jay, 2013). The term "social enterprise" has become an "umbrella" construct, "with a wide scope and ambiguous boundaries" (Battilana and Lee, 2014, p. 406), indicating a variety of arrangements characterised by the coexistence of social and business components. Hence, SEs can be positioned along a continuum between philanthropic and commercial organisations and are not characterised by a unique legal form (Smith and Teasdale, 2012).

Based on data from the EU commission, a growing number of organisations can be considered SEs: recent statistics report that approximately 2 million enterprises are active in the social economy (approximately 10% of European enterprises). Focusing more specifically on Italy, according to the ISTAT (Istituto Nazionale di Statistica) census, more than 94,000 organisations can be regarded as consistent with a broad definition of SE, including social cooperatives, associations and foundations, and *ex lege* social enterprises.

Against this landscape, social tech start-ups are gradually being characterised by their attempt to use advanced technology to address different social needs (Millard and Carpenter, 2014). The diffusion of this peculiar type of new venture has occurred in two main trends. First, the need to address social challenges has offered new market opportunities and the possibility of seizing them by exploiting potential synergies between technological and social innovation (Bria, 2015). Second, policymakers have introduced some explicit incentives to support this type of new venture, recognising these ventures as having a potential role in addressing relevant social issues (Misuraca et al., 2015).

Advancing from the first issue, in the last twenty years, the worsening of so-called social challenges has clarified the need to rethink the role that business and social organisations can play in the economic landscape (Haigh et al., 2015). Social needs represent a growing market that is being further enlarged by the reduction of welfare. Companies and organisations operating in the social sector have begun to identify opportunities to create new business models and to generate profits by addressing these social needs through social innovation (Cajaiba-Santana, 2014; Franz et al., 2012; Grimm et al., 2013). In turn, social innovation has increasingly leveraged technological innovation - i.e., technical and technological advancements have been exploited to create products, artefacts, services or processes that can contribute to addressing a social problem (e.g., Gardner et al., 2007; Misuraca et al., 2015; Rahman and Smith, 2014). From this perspective, social innovation not only complements technological innovation - as it was initially conceived (Pot and Vaas, 2008) - but also advances it by fostering the establishment of a virtuous cycle in which technological innovation is a relevant ingredient of social innovation (Millard and Carpenter, 2014). Nevertheless, the relationship between technological and social innovation is complex and difficult to untangle (Grimm et al., 2013) because the interplay between the technological domain and the social domain cannot be conceived as a one-way linear relationship.

The second factor that has encouraged the rise of social tech startups is related to the recognition of the relevance of this phenomenon by policymakers. In Europe, for instance, social innovation is claimed to be central in meeting the EU2020 targets to increase employment, improve education, reduce poverty and social exclusion and lower greenhouse gas emissions (European Commission, 2012a, 2012b). These expectations have been transferred to SEs and social tech startups because these companies are seen as pivotal vehicles of social innovation (Alvord et al., 2004). Something similar happened in the past in the United States and Western Europe (Battilana and Lee, 2014). In the United States during the 1980s, non-profit organisations dealt with a changing economic environment by developing new social projects that were able to mobilise alternative sources of funding. In Western Europe in the 1970s, social integration enterprises played a central role in a period of enduring unemployment to support unemployed and marginalised groups (Defourny and Nyssens, 2006; Kerlin, 2006).

These expectations are translated into different forms of support from which social tech start-ups can benefit.

Whereas the European Commission has expressed its interest in using technological innovations to tackle social challenges by beginning a mapping project (see the projects "Digital Social Innovation for Europe" and "IESI Mapping Survey"), the Italian context offers a unique example of concrete support to transform social-tech ideas into entrepreneurship. In 2015, the Italian government enacted a Legislative Decree to support innovative social start-ups - labelled "Start-up innovativa a vocazione sociale" (SIAV) in Italian. This law sets specific requirements for technological intensity and social mission in order for an organisation to acquire the status of an SIAV. On the technological side, an SIAV should have the development, production and sale of high-tech goods or services as a core business, (1) deploy at least 15% of turnover or production costs to R & D activity, (2) have at least one-third of all employees with proven experience in scientific research or (3) own at least one patent or intellectual property. On the social side, an SIAV should provide self-certification of its social impact using a template set by the law and renounce dividend distribution. Then, SIAVs can benefit from relevant fiscal incentives that are applied to individuals and companies that invest in these organisations. These incentives signal a specific willingness by the government to support these organisations by recognising that their activity has the potential to produce value for the community. At present, statistical figures on the diffusion of SIAVs are limited, but promising. In September 2016, 116 organisations registered as SIAVs: they include 105 limited liability companies or public companies and 11 social cooperatives, with a clear prevalence in the service sector (where 106 of 116 organisations operate). Sixty-one organisations were newly created enterprises that registered with the Register of the Chamber of Commerce in 2015.

In addition to offering these positive factors, the hybrid nature of social tech start-ups also poses some relevant challenges. The coexistence of social and commercial objectives, which is typical of SEs, requires organisations of this type to continuously face significant trade-offs, resulting in a higher level of complexity in establishing, leading and managing them (Alter, 2006; Austin et al., 2006; Leadbeater, 2007; Wilson and Post, 2013). To pursue their dual mission, these organisations need to manage the demands of multiple stakeholder groups, which are reflected in conflicting and competing commercial and social logics (Battilana and Dorado, 2010; Battilana et al., 2012), lead to tensions as a result of the relative prioritisation of financial over social goals and influence the ability to mobilise resources (Doherty et al., 2014).

For social tech start-ups, this challenge is further amplified because technological advancement calls for the employment of considerable invested capital, leading to the need to identify proper financing mechanisms.

To date, thanks to its purchasing power, the public sector has played a significant role in financially sustaining SEs (Allen, 2009; Heins et al., 2010). However, the sovereign debt crisis has reduced public administrations' spending capacity, placing funding pressure on organisations that operate in the social business sector. Several authors have therefore acknowledged that dependency on the public purse has risks for the sustainability of socially innovative sectors, and funding streams must be diversified to make SEs resilient and sustainable in cyclical

environments (Grimm et al., 2013).

This dependency on public sector procurement is particularly evident in the Italian case where, in 2011, revenues from public contracts amounted to 65% of the total income of social cooperatives, with only 28% of revenues generated from the sales of goods and services to private clients. In addition, two dynamics emerge from an analysis of these organisations' funding composition. First, Italian SEs still rely largely on their own financial resources: approximately 70% finance themselves through contributions provided by members, surpluses resulting from business activities and grants (Venturi and Zandonai, 2012). More recently, Italian SEs have increased their demand for commercial finance. In 2014, the volume of debt contracted by social cooperatives amounted to approximately EUR 7.9 billion (data processed by Euricse, drawing on the AIDA database) (Venturi and Zandonai, 2014).

Against the above background, we argue that there is considerable uncertainty regarding how social tech start-ups can access financing, the barriers these organisations experience in looking for finance and the financial instruments that are most suitable to address their financial needs. This issue has been largely unexplored in the literature because of the novelty of the phenomenon from a business perspective. However, an analysis of this issue could offer theoretical underpinning with the literature on different forms of financing of high-tech start-ups on one hand and SEs on the other hand.

Hence, we first develop a critical analysis, discussing the main barriers that high-tech start-ups and social tech start-ups encounter in accessing financing in different lifecycle stages, comparing institutional solutions through which they can finance their activities and assessing the specific features that make some options more suitable than others. We also introduce the concept of social impact investing (SII) and discuss its potential contribution to the social tech finance landscape. Then, using the case of social tech start-ups as a paradigm for the broader problem of financing mechanisms for social innovation, we formulate a research agenda, identifying directions for research and theoretical development in the field of SII. In doing so, we formulate possible explanations for and critical analysis of an emerging phenomenon that is currently under-theorised.

2. Financing social tech start-ups: barriers, institutional and emerging solutions

In this section, we discuss the main problems encountered by social tech start-ups in accessing finance, and we outline the financial instruments available to these ventures, referencing both traditional and emerging institutional solutions (See Table 1). In so doing, we identify the factors that determine institutional solutions' suitability for accomplishing a social tech start-up's objectives, considering the intentional pursuit of a social mission instead of profit maximisation.

To guide our analysis of financing instruments, we refer to the seminal paper of Berger and Udell (1998) and more recent papers developed consistent with this framework (Carpenter and Petersen, 2002; Cassar, 2004; Colombo and Grilli, 2007; Mann and Sager, 2007). More specifically, we move from prior research about high-tech ventures, which explores how the relationship between funding requirements and the obstacles and barriers they meet varies across different lifecycle stages (Berger and Udell, 2002; Colombo and Grilli, 2010; Gompers and Lerner, 2001). Because the lifecycle of social tech ventures shares many similarities with that of other enterprises (Burkett, 2010; Nicholls and Pharoah, 2008), we articulate the discussion around the typical stages of seed, startups, early growth, and growth (Burkett, 2010; Cusumano and Spano, 2012; Jacokes and Pryce, 2010). Using the findings concerning high-tech ventures as a baseline, we outline the barriers that social tech start-ups encounter to accessing financing in different lifecycle stages and the relationship with different financial instruments, paying particular attention to the factors that make some financing alternatives more or less suitable in different phases of the start-up lifecycle. Given the objective of this paper, specific attention will be paid to the first two stages of the lifecycle,

whereas the other stages will be briefly revised for the sake of completeness. In this process, we attempt to determine the prioritisation of financial sources in terms of the ability to respond to social tech start-ups' financial needs, but we do not mean that the different sources are mutually exclusive to a specific phase.

2.1. Early stage and seed financing

The first lifecycle stage is the seed stage, where the innovative idea is conceived. In this phase, both the volume of sales of a new venture and its capital intensity are equal to zero (Jeng and Wells, 2000; Kortum and Lerner, 2000; Venturelli and Gualandri, 2009), and financial needs often consist only of the expenditures required for a technical and economic assessment of the investment plan. In this phase, high-tech ventures' main barriers to access to finance are their risk profiles, which are higher than those of later-stage entities (Ou and Haynes, 2006), and the fear of entrepreneurs losing control over their own business ideas (Howorth, 2001).

Potential investors consider social tech start-ups to be even riskier than traditional high-tech start-ups (Bank of England, 2003; Fraser, 2007; Howard and Giddens, 2004). The aim of addressing a social problem often leads to an imbalance between the perceived risk and a corresponding financial prospect return for social tech start-ups operating in sectors with higher failure rates (Martin, 2011; Nicholls et al., 2015), the social ventures' hybrid mission does not allow them to charge market prices or target customers with the highest purchasing power for their products and services (Karaphillis et al., 2010). Thus, social tech start-ups might not be able to generate income levels that meet investors' return expectations (Kickul and Lyons, 2015). In addition, surpluses are not often used to provide a direct return on share capital, leading to an unfavourable risk-return relationship, and these barriers can make social tech start-ups unattractive for business angels in this phase and venture capital operators in later stages.

In addition, the problem of entrepreneurs fearing loss of control over their own ideas is intensified by the presence of a social mission (Achleitner et al., 2014; Emerson et al., 2007; Nicholls and Pharoah, 2008; Ridley-Duff and Bull, 2011; Seddon et al., 2013). Entrepreneurs in social tech start-ups might be more reluctant to give up some control over the management of the company due to the threat of mission drift (i.e., the focus on financial goals overtakes that on social goals). Equity investors are typically profit seekers, and therefore, they might not be aligned with the system of values that is inherent to a social venture, undermining its social mission.

In addition, compared to tech start-ups, social tech start-ups face another barrier: their legal form. High-tech start-ups in the seed phase are predominantly supported by the financing of the founder itself (or the funds of family and friends) (Conti et al., 2013; Graham et al., 2009; Papadimitriou and Mourdoukoutas, 2002), but this practice may be put off if the organisation decides to assume a non-profit legal form because an entrepreneur might be reluctant to invest its savings without any ownership stake (Dees and Dolby, 1996; Jacokes and Pryce, 2010).

Because of these constraints, social tech ventures in the seed stage typically rely on grants and donations to finance their activities, and due to their social mission, they are usually highly embedded in the community, with strong relationships with different groups of stakeholders (Dacin et al., 2010; Mair and Martì, 2006). Hence, their social mission becomes a source of legitimacy (Teasdale, 2010), which allows them to obtain preferential terms from traditional grant makers, such as philanthropic foundations, corporations and government agencies, and attract new funding from individuals either through high-net-worth individuals (HNWI¹) and grassroots campaigns (Dees, 1998; Dees and Dolby, 1996).

¹ According to the World Wealth Report 2016, HNWIs are defined as individuals having investable assets of US\$1 million or more, excluding primary residence, collectibles, consumables, and consumer durables.

From this perspective, ICT technologies have heavily changed social ventures' donation marketing (Lehner and Nicholls, 2014), and crowd-funding has emerged as a further financing opportunity for seed and startup entities to raise capital beyond conventional sources. Crowdfunding is basically a new approach to gather small amounts of money from a large and diffuse audience, i.e., crowd investors leveraging Internet and social media platforms to achieve global outreach (Colombo et al., 2015), and it can help social tech start-ups bear the cost of proof-of-concepts and allow the first entrepreneurial steps to take the place of FFF funding (Lehner, 2013). Even in this case, social tech start-ups can use the legitimacy of their mission to attract new actors: crowd investors are usually compelled by the core values and social goals of the ventures and are less interested in collateral or reliable business plans (Lehner and Nicholls, 2014). Crowdfunding can be considered a source of grants, debt (lending crowdfunding or other peer-to-peer lending instruments) or equity capital.

Finally, similar to high-tech start-ups (Phillips, 2002), a relevant role can be played by incubators; they contribute to the development of social tech start-ups by supporting capacity building in terms of managerial and financial expertise, which are generally lower in social ventures than in other for-profit organisations (Conathy, 2001; Fraser, 2007; Lyon and Baldock, 2014; SEUK, 2015; Von Zedtwitz and Grimaldi, 2006).

2.2. Start-up financing

In the second lifecycle stage, the start-up stage, the idea is presented to the market. In this stage, high-tech ventures typically need considerable amounts of financing due to the rising capital intensity countered (at least initially) by a substantial absence of revenues (Hall and Woodward, 2010; Nanda and Rhodes-Kropf, 2013). This situation is worsened by the existence of significant information asymmetry between the entrepreneurs and possible external funders due to both the lack of trading history and the practical barriers to undertaking due diligence for new and unproven ventures (Cassar, 2004; Verheul and Thurik, 2001) and the confidentiality of data and information about start-up projects (De Bettignies, 2008). Information asymmetries are likely to increase the cost of raising external financing, as lenders seek higher interest rates and greater equity shares to compensate for the risk of funding an unproven new venture (Harding, 2002; Watson and Wilson, 2002). Furthermore, this stage is characterised by both a moral hazard problem, i.e., entrepreneurs may behave opportunistically after obtaining external financing, and an adverse selection problem, i.e., the inability of investors to discriminate between start-ups with highquality projects from start-ups with low-quality projects (Colombo and Grilli, 2010). The final barrier consists of the absence of collateral (Fielden et al., 2000; Scellato, 2007), which is due to the intangible nature of most high-tech investments. As a consequence, banks or other financial institutions are generally unwilling to finance start-ups because they hardly fulfill the criteria required to access standard forms of debt (Cassar, 2004). In contrast, given that this stage is less risky than the seed stage, both business angels and venture capital firms are viable institutional solutions, though venture capitalists often invest in companies that have already received one or more rounds of angel financing (Cumming et al., forthcoming; Shane and Cable, 2002).

These barriers are amplified in the case of social tech ventures. First, the issue of information asymmetries is greater for social tech start-ups because they do not fit neatly into either the traditional non-profit model or the for-profit model. Commercial investors are used to investing in traditional for-profit ventures and may be less aware of the characteristics of social ventures, particularly those concerning their structure and governance (Chertok et al., 2008; Fraser, 2007), which may create a lack of understanding between organisations and potential investors. Because investors are less familiar or do not understand business models that generate both social and financial return, they are very cautious in investing in social ventures (Achleitner et al., 2014; Bank of England, 2003). When they do so, they apply to these

organisations the same requirements as those of for-profit enterprises. In addition, due diligence and monitoring are more difficult in the social sector for various reasons (Burkett, 2010; Desa and Basu, 2013; Karaphillis et al., 2010; Martin, 2011): it is more difficult for social ventures to demonstrate their social impacts to potential funders due to the absence of commonly recognised performance metrics for social risk and return, and they often lack the necessary track record (Bengo et al., 2016; Kickul and Lyons, 2015; Nicholls et al., 2015).

The issue of information asymmetry leads to a threat of moral hazard. Indeed, investors may be not sure whether a social venture will give primary importance to its social objectives, disregarding the generation of income to repay them (Fraser, 2007).

Even though equity funding provided by venture capital could be an option in this phase, social tech start-ups, like high-tech start-ups, might experience another barrier: their legal form. Problems arise when an organisation assumes a legal structure, typically pertaining to the non-profit sector (Dees and Dolby, 1996), which imposes some non-distribution constraints or interest payment restrictions or entails a particular ownership structure (Austin et al., 2006; Jacokes and Pryce, 2010; Mendell and Nogales, 2008; Ridley-Duff and Bull, 2011). In this case, social tech start-ups are not attractive or are less attractive to investors with financial return expectations. In contrast, the non-distributive restriction represents a protection for grant providers, resulting in a competitive advantage in the donation market (Fedele and Miniaci, 2010; Fischer et al., 2011; Glaeser and Shleifer, 2001).

The combination of these challenges could lead to the problem of "grant dependency" (Conathy, 2001; Fraser, 2007; Seddon et al., 2013; Sunley and Pinch, 2012). In other words, organisations with a social mission can remain fixed in a charitable mindset and be reluctant to take on commercial finance, especially when non-commercial sources of finance are familiar and readily available. This culture of grant dependency is problematic for two main reasons. First, commercial finance (Bank of England, 2003). For example, commercial finance can be used to finance longer-term and broader goals than grant finance. Second, reliance on donations and government grants makes these organisations risky prospects for mainstream investors, leading to a vicious cycle (Karaphillis et al., 2010).

To address these problems, several new institutional solutions have emerged.

The first family of instruments put forward consists of so-called "hybrid capital" (Cusumano and Spano, 2012; Spiess-Knafl and Achleitner, 2012) – e.g., including recoverable grants, convertible grants, forgivable loans, and revenue share agreements (Nicholls and Pharoah, 2008; Spiess-Knafl and Achleitner, 2012). These instruments have shifted from those usually referred to as mezzanine financing, which combines elements of debt capital and equity capital, toward a component related to donations. Hence, unlike traditional debt, these instruments are unsecured; like traditional equity, they are somewhat linked to the performance of a start-up, but they usually do not change the start-up's ownership structure. Finally, these tools inherit the absence of interest from donations and can be converted into grants when certain conditions are realised. As a result, these financing forms are typically very flexible and can be structured and re-arranged according an organisation's results.

A second family of mixed instruments is represented by "patient capital", including long-term grants with no exit strategies and lowinterest loans (Cusumano and Spano, 2012; Haigh and Hoffman, 2012; Howard and Giddens, 2004; Jacokes and Pryce, 2010). The rationale underpinning these instruments is that the time horizon needed to tackle a social problem may not align with the timelines of the potential commercial funders (Kickul and Lyons, 2015). Therefore, social economy organisations need capital that is less commercial than equity capital and that allows less strict requirements for investment repayment. Accordingly, patient capital investors usually set repayment conditions to follow the operations needed by the company to grow. These conditions usually entail a medium-term horizon, "repayment holidays", and a below-market interest rate, and they are often complemented with managerial support (Haigh and Hoffman, 2012).

Finally, the role of traditional venture capitalists might be taken on by a venture philanthropist (Lehner and Nicholls, 2014). Venture philanthropy is a new approach to grant making that uses the tools and criteria of venture funding (Daly, 2011; Hafenmayer, 2013; Moody, 2008). Thus, the aim of venture philanthropists is to maximise the positive social or environmental impact, but their approach, defined by the field of venture capital, can enhance the growth of the enterprise's business model. Moreover, according to Hafenmayer (2013), venture philanthropy exhibits the following features that might fit the needs of social tech start-ups: (a) extensive due diligence at the local level, (b) tailored forms of financing, (c) the provision of support by means of intellectual and social capital to complement financial capital, (d) longterm commitment, (d) ongoing monitoring and performance measurement, and (e) the optimisation of social and environmental returns.

2.3. Early growth financing

In the third stage, the early growth stage, a venture manufactures and markets its products; however, there may be some uncertainty about its actual profitability and the possibility of changes to the initial idea, and additional investments may be needed to expand the market (Ou and Haynes, 2006). Consequently, funding requirements grow larger than in prior stages, but simultaneously, some of the prior barriers become less relevant (e.g., information asymmetry, intangibility of assets, lack of trading history, and adverse selection) (Cassar, 2004). In this stage, firms can gain access to a broader range of financial instruments, including venture capital, large corporate partners on the equity side and banks and other financial institutions on the debt side (Mann and Sager, 2007).

For social tech start-ups the imbalance between revenues and financing needs is further amplified in the early growth phase because these firms tend to achieve less revenue than high-tech ones due to the internalisation of relevant social costs (Lumpkin et al., 2013; VanSandt et al., 2009).

Considering the magnitude of the additional resources that are needed in this phase (Weber et al., 2014), social tech ventures consider commercial equity and debt as possible sources of financing. However, for commercial equity, the same barriers mentioned above continue to hinder their ability to access traditional institutional solutions (Howard and Giddens, 2004; Miller, 2008; Wuttunee et al., 2008). For debt, the main financing source is typically represented by bank loans, with which social tech ventures experience some significant challenges (Bank of England, 2003; OECD, 2015; SEUK, 2015), the first of which is the lack of collateral (Jacokes and Pryce, 2010; Sunley and Pinch, 2012). These firms may have fewer assets available to use as loan security because they are equipped mainly to generate social rather than financial value (Fraser, 2007). Indeed, there may be mission-related constraints on how assets are disposed, or the organisation itself might be reticent to use community assets as security (Sunley and Pinch, 2012). A second challenge is again related to the issue of information asymmetry, which jeopardises the relationship with banks because banks might not be acquainted with the peculiarities of social tech start-ups. This issue has various consequences that affect social tech start-ups' ability to obtain a loan. First, banks apply to social ventures the same credit assessment as commercial ventures, which does not recognise social performance (Bank of England, 2003; Jacokes and Pryce, 2010); second, they charge the same financial costs, which are often too high for SEs (Lyon and Baldock, 2014; SEUK, 2015); third, banks are usually turned off by the lack of credit history and track record of this kind of venture (Dees and Dolby, 1996; Smallbone et al., 2001). In contrast, social tech start-ups themselves often do not have the proper knowledge of the capital market (Burkett, 2010; SEUK, 2015); thus, they are not ready and not willing to undertake costly due diligence processes and ongoing investment monitoring.

Identifying the potential market associated with these specific types of ventures, some mainstream financial intermediaries have decided to equip themselves to address their needs. On one hand, banks and financial institutions have attempted to tailor traditional financial products to the specificities of social business organisations: Some banks reserve certain financial products for social business organisations, while other banks have established branches dedicated to this type of client, as well as co-operative banks, which usually have a strong relationship with their communities (World Council of Credit Unions, 2012).

On the other hand, new financial instruments have been designed. Beyond traditional sources of debt, a possible financing alternative is Community Development Financial Institutions (CDFIs) (Jacokes and Pryce, 2010), which often offer more flexible and patient conditions to provide capital to market players that are underserved by commercial lenders. The most common instrument used is the business micro-loan (McWade, 2012), which is defined by the European Commission as any loan of less than EUR 25,000 aiming to support the development of selfemployment and micro-enterprises; this type of loan usually does not ask for assets as collateral but rather implies other kinds of guarantees.

Finally, social tech ventures, like other SEs, might experience advantages in obtaining revenues from a specific source, i.e., national and local public authorities. Beyond grants, support from the public sector comes in the form of payments for services directly through commissioning or indirectly through subsidies given to specific categories of underprivileged individuals (Dees and Dolby, 1996). The aim of creating value for the community and certain related features, such as profit locks, makes social tech start-ups a favoured partner by governments. In addition, contracts with the public sector might ensure the level of demand and financial support necessary to trigger organisational growth. Contracts with the public sector may also have a signalling function: other capital providers might be reassured by the presence of another stable source of support (Dees and Dolby, 1996). In the PPP domain, a new innovative instrument has emerged whose aim is to initially leverage private capital to finance providers of social services but to shift the risk of the partnership to public funding. The partnership is labelled as a pay-for-success contract, and the financial instruments embedded in these contracts are Social Impact Bonds (SIBs) (Saltuk et al., 2014). An SIB can be defined as a hybrid tool - with elements of either equity or debt - aimed at supporting preventive interventions through a pay-for-success contract (Arena et al., 2016; Azemati et al., 2013). In this model, the investors, through a financial intermediary, pay for a given social service that aims to achieve a social goal that is also a government priority. If the offered service achieves the defined social goals, the government remunerates the investors; otherwise, these investors lose their investment. This mechanism of "pay for success" aims to increase the number of available financial instruments and minimise the unfavourable risk and return relation, considering that the public entity remunerates the investors based on the success or failure of the initiative. Hence, these instruments change the risk allocation, shifting the risk from falling entirely on the public administration that procures the service to being shared by the public entity, the social service providers, investors and intermediaries (Bengo and Calderini, 2016).

2.4. Growth financing

Finally, the fourth stage is growth. A detailed analysis of this stage is beyond the scope of this paper, but it is worth mentioning that companies in this phase face completely different challenges than companies in other stages, often experiencing increasing sales volume and profitability. To finance growth, these companies can exploit both debt and equity (Hellmann and Puri, 2002), and it is important to specify that there is still no evidence of SEs that were able to reach the same large profit scale as high-tech companies (European Commission, 2015; SEUK, 2015). Still, SE growth does not primarily involve increasing the organisation's size; rather, it means scaling the social impact using different strategies beyond increasing the level of revenues (Bradach, 2010; McPhedran Waitzer and

Paul, 2011; Uvin et al., 2000). In this stage, the pursuit of a social mission and the relevance of mission lock requirements could hinder the public equity option that we introduced for high-tech start-ups (Howard and Giddens, 2004; Nicholls et al., 2015). Hence, commercial debt could ultimately be the main source supporting SE scaling (Jacokes and Pryce, 2010). In terms of equity capital, many organisations have created social impact funds, which are a ready-to-deploy pool of capital available to social ventures through a professionally managed, diversified fund. They are distinct from VP funds because they require the return of the principal plus a certain rate of return. In addition, they have a ticket size that, although smaller than that of commercial venture capital funds, is still larger than the average dimension of social enterprises (Nicholls and Emerson, 2015). Therefore, these funds are interested in mature social tech start-ups because the transaction size in this stage is potentially larger (GIIN and Morgan, 2016: 21). Social impact fund investors are willing to undertake more expensive due diligence and monitoring of the investment that, for instance, entails on site visits to get a clearer idea of the social impact (Koh et al., 2012). Moreover, they usually provide free capacity-building services to ensure that an entrepreneur will be able to successfully run the venture and realise the social impact that he or she hopes to achieve. For the same reason, social impact funds allow longer repayment times because they are aware that reaching the break-even point while selling goods and services aimed at achieving social impact requires more time and effort (Nicholls and Paton, 2009). In contrast, unlike other sources that typically pertain to the non-profit domain (e.g., grants and public contracts), social investors require financial return and measuring both social and financial returns, which fit the high-tech nature of social tech start-ups. Finally, both the actors and the financial instruments that characterise SII demand some ad hoc requirements that social tech startups should respect. In general, the SII ecosystem is enabled by a performance measurement infrastructure that aims to evaluate and monitor social impact (Bugg-Levine and Emerson, 2011; Bugg-Levine et al., 2012). These requirements, which typically concentrate on measurable social impacts, can contribute to overcoming the problem of a lack of understanding and potential mission drift, supporting the achievement of social objectives and limiting the problems of adverse selection, information asymmetry and moral hazard.

Table 1

Outline of new financial barriers and new financial instrume	nts
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Stage	Financial needs	Barriers	Type of capital
Seed	Low	 High risk Unfavourable risk/ return relation Threat of mission drift Legal form Lack of managerial skills 	 Grants from charities Grants from corporation Grants from government agencies HNWI Retail (crowdfunding; peer to peer lending)
Start-up	High	 Information asymmetry Performance measurement and monitoring Moral Hazard Legal form 	 Business incubators Equity (crowdfunding) Hybrid financing forms Patient Capital Mezzanine financing Venture Philanthrony
Early Growth	Very high	 Information asymmetry Lack of collateral Lack of financial skills Fear of failure 	 Public Procurement Social Impact Bonds Microfinance Term Debt with flex features (social banks) Subordinate Debt
Growth	Medium	 Size Mission lock requirements 	 Commercial Debt Equity (Social Impact Fund)

2.5. The rise of social impact investment

The analysis of financing needs in different lifecycle stages of social tech start-ups has emphasised that these new ventures – similar to high tech start-ups – require considerable initial funding to support their activities and allow scaling. However, in these ventures, the challenge of finding financial support is entangled with the need to conceive strategies to increase not only an organisation's size but also its social impact by using formal and informal networks, disseminating principles and practices, adding new services and changing the policy framework (Bradach, 2010; McPhedran Waitzer and Paul, 2011; Uvin et al., 2000).

A review of conventional funding sources has highlighted that the most common institutional solutions (such as grants, donations and state spending) are not enough to sustain the scaling of social tech startups. The above sources, in fact, are characterised by common drawbacks — i.e., they are generally tied up with specific projects and are limited in their amounts and time horizons. Moreover, commercial sources of external finance (e.g., commercial banks or venture capitalists) are typically less easily accessible to social tech start-ups because mainstream providers tend to not recognise the peculiarities of this emerging entrepreneurial model. These circumstances hinder the possibility that social tech start-ups will exploit these sources of financing to make long-term investments (Brown, 2006) and pose significant challenges to the sustainability of their twofold nature — i.e., social and tech.

However, the new financial instruments described above constitute and support SII, that is, investments that proactively pursue social and environmental goals (Nicholls and Emerson, 2015) and prioritise the creation of social impact. The SII field is still emerging, and the solutions created are far from being established and their effectiveness far from proven.

Therefore, though solutions to financially support social tech ventures have been provided by both conventional funding sources and the emerging field of SII, the analysis of their efficiency and effectiveness leaves room for further academic investigation.

3. Research agenda on the effectiveness of emerging solutions

We analysed the financing instruments available to social tech startups, and we discussed the main problems that these ventures encounter in accessing finance in different phases of their lifecycles. The review of conventional funding sources highlighted that the most common institutional solutions (such as grants, donations, social spending, debt capital from financial intermediaries, venture capital and private equity) present some major weaknesses that hamper their potential to sustain social tech start-ups' scaling.

Considering the intentional pursuit of a social mission instead of profit maximisation as the ultimate goal of these organisations, we introduced SII as an emerging solution that appears particularly promising financing source for this type of social venture. SII prioritises measurable social impact and considers financial return as an additional benefit that could range from the repayment of the capital to a risk-adjusted market rate return (Moore et al., 2012). Moreover, SII could represent an enormous market opportunity. In its most recent survey, GIIN, the global network of social impact investors (GIIN and Morgan, 2016) reported that, in 2015, 158 impact investors at the global level (mostly located in North America and Europe) financed 7551 social impact investments worth a total of 15.2 billion dollars, and the committed capital was expected to grow by 16% by the end of 2016. Since the first GIIN survey, respondents have increased from 25 to 158, and the capital committed increased by 18% from 2013 and 2015. Looking at pioneering markets in Europe, by the end of 2015, £1.5 billion was invested in regulated social organisations in the UK, with annual growth of 20% (Robinson, 2016). Moreover, since 2010, when the first social impact bond was launched, £269 million have been raised using this instrument. Players from the mainstream financial

market, such as Deutsche Bank, Goldman Sachs and the European Investment Fund, are entering the field. The European Venture Philanthropy association counts more than 210 members from over 29 countries, and its survey (Hehenberger et al., 2014) reported a VP market of over €5 billion invested since approximately 8 years ago.

However, SII remains a niche market compared to socially responsible (SRI) investments based on negative screeing: in 2014, SRI was worth US\$ 14,390 billion worldwide, whereas social impact investments were worth US\$ 109 billion (GSIA, 2014).

As highlighted in the previous section, the SII field is still emerging, and the proposed instruments have not proven their sustainability and effectiveness. In addition, their role in financing social tech start-ups has not yet been globally acknowledged. Even the UK SII ecosystem, which is usually highlighted as the reference model, is "more advanced" than other countries, has recently been criticised for its lack of transparency, its unawareness of the actual financial needs of social innovators, and its excessive focus on the supply side. In addition the SIB instrument, which is often considered paradigmatic of SII, has been heavily challenged in relation to its possibility to redesign public procurement systems to replace existing contracts (Arena et al., 2016; McHugh et al., 2013).

Based on these considerations, we outline a research agenda that addresses the potential of SII to support social tech start-ups in overcoming the barriers they experience in accessing finance — i.e., how to prove the sustainability and effectiveness of SII.

Prior analysis has shown that many of these barriers are common to the different stages of the start-up lifecycle, as they are mainly related to the social mission of these organisations. Hence, we deepen the analysis of the barriers from a theoretical perspective to draft a research agenda that can provide insights on how to develop the frontier of SII research.

To this aim, the first fundamental issue is related to achieving a better understanding of the size of the phenomenon at hand in terms of the supply of and demand for capital. This issue remains open because, while scholars and field experts in different countries have made attempts to define the actual size of the market, they ended up with raw estimations (G8 SII Taskforce, 2014) due to the vagueness of SII boundaries, which include a heterogeneous array of instruments and actors. As a result, on the supply side, the data available regarding the volume of investment activities and investment performance remain incomplete and difficult to compare (OECD, 2015).

Similarly, we lack robust evidence on the demand for SII capital, which would legitimise the existence of SII. Indeed, the quantification of demand requires determining the number of social ventures in Europe (European Commission, 2015). However, the available data generally concern legally recognised social enterprises, which, in many countries, are far fewer than de facto social ventures. Therefore, it is currently impossible to find an aggregate figure at the EU level. To offer an overview of this market, however, we can mention a few examples for which more accurate data are available. In the UK, one of the pioneering countries in the social entrepreneurship sector, there are approximately 284,000 SEs, and in Italy, there are 1600 Italian organisations formally registered as SEs according to several laws, whereas the estimation of organisations compliant with the EU definition of SEs is 40,000. In France, there are 315 société coopérative d'intérêt collectif (social cooperatives of public interest).

The previous considerations pave the way for the following research questions:

- 1. What is the actual demand for socially oriented funding in various European countries?
- 2. What is the potential demand for socially oriented funding in various European countries?

Once the size of the phenomenon is defined, three main areas appear crucial for explaining its evolution: (1) demand-supply matching,

(2) the development of a proper accountability infrastructure, and (3) the development of the regulatory framework.

3.1. Demand-supply matching

Scholars in the SII field reported that an issue hindering the growth of the SII market is the scarcity of investment-ready deals (Oleksiak et al., 2015), which is reasonable considering the characteristics of social ventures as described above: they usually originate from the nonprofit sector and tend to give priority to the achievement of social impact rather than to commercial development. Therefore, they usually struggle to attract the resources necessary to sustain their impact-generating activities.

This problem could be addressed using the resource-based view of the firm (RBV), which states that firms gain a competitive advantage not only from the acquisition of resources but also from their ability to combine and deploy these resources, creating core organisational "capabilities" (Wernerfelt, 1984). Accordingly, social tech start-ups may need to develop different and potentially more complex capabilities to manage the co-existence of conflicting institutional logics in their operational model and to compensate for the lack of resources (Bacq et al., 2016). These "differential" capabilities might become a source of competitive advantage (Teece et al., 1997). Shedding light on which capabilities are the most relevant for the survival and growth of social tech start-ups and which are the most valuable for attracting investments is a crucial element to enhance supply-demand matching in the market.

Therefore, we find that the following research question is worth addressing:

3. What capabilities can help SEs engage different types of financiers and, in particular, access SII?

The centrality of this issue is further confirmed by an emerging trend in which social impact investors increasingly provide managerial training (besides financial support) to their investees (Oleksiak et al., 2015). The capacity building (including business planning, managerial, financial skills and HR management) provided by social impact investors might increase a social tech start-up's ability to develop the new hybrid capabilities required or might force the enterprise to prioritise aspects that have a positive impact on economic performance at the expense of the creation of social value. However, if and to what extent the capacity-building services provided by the investors help the survival of these organisations have not yet been verified. This information may help to overcome the issue of the limited number of investment-ready organisations and boost the growth of the SII market.

Therefore, further investigation is needed to answer the following question:

4. Does the provision of non-financial services from investors enhance the survival of a social venture?

RBV can inform this research agenda in relationship to another aspect: the role of intangible assets. The most relevant resource for social ventures is probably a specific type of intangibility defined as social capital (Dacin et al., 2010; Evers, 2001; Mair and Martì, 2006). Social capital is based on social networks and refers to the values of trust, solidarity and willingness to cooperate, which improve the efficiency of society (Knack and Keefer, 1997; Putnam, 1993). These relational assets – which consist of affiliation to networks, members' support, and embeddedness in the community – are a crucial source of competitive advantage for social ventures and might represent collateral for these ventures, thereby providing physical assets. These intangibles are still unregistered, but it is commonly acknowledged that they have value. Hence, research might contribute to overcoming the challenge of a lack of collateral in social tech start-ups by investigating the following question:

5. How can investors account for social capital in their decision-making process?

3.2. The development of a proper accountability infrastructure

The problem of ensuring accountability to stakeholders is obviously not new to the literature; however, when social ventures are at stake, this issue becomes even more complex for two main reasons: the multistakeholder and multi-objective approaches that characterise these organisations and the lack of a shared measurement system for social value (Rasche and Esser, 2006).

For the first characteristic, we argue that a significant theoretical lens is provided by stakeholder theory, which suggests that organisations are a "collection of various individual groups with different interests" (Laplume et al., 2008) and that their decisions should consider the interest of all these groups (Donaldson and Lee, 1995). The hybrid nature of social ventures, where social aims and commercial models coexist, also affects their relationships with stakeholder systems. The social mission typically determines a closer relationship and involvement of certain stakeholder categories (such as beneficiaries, local communities, and other third-sector organisations), which could imply some form of co-creation of the service and the development of participative governance models (Defourny and Nyssens, 2006; Ramírez et al., 2011). In contrast, the commercial model is grounded in the ability of the organisation to ensure its economic sustainability and secure the necessary resources (hence interacting with investors, banks and potential funders).

The hybridity of social ventures implies that they should be able to build an accountability infrastructure in which different groups of stakeholders are equally considered and provided with proper information (Pache and Santos, 2013), which could be easier with social investors, who acknowledge the hybrid goal of SEs, unlike stockholders' goal of value maximisation (Nicholls and Emerson, 2015). To verify this potential benefit of SII, it is fundamental to detect the potential tensions between investors and other categories of stakeholders belonging to the social sector and to explore their dynamics. The insights from stakeholder theory lead to the following questions:

6. What are the potential tensions between financial investors and the other groups of SE stakeholders, and how do they evolve?

Moving to the second matter, different authors recognise that the lack of a social impact measurement system with credible indicators and metrics seriously limits the development of social ventures (Nicholls, 2009). This deficiency worsens information asymmetry problems (Akerlof, 1970), which, according to the fundamentals of agency theory, are inherent to the relationship between an entrepreneur and an (impact) investor (Christensen et al., 2009). The investor is regarded as the principal that delegates the production of multiple outputs (money and impact) to an entrepreneur - the agent (Evans, 2013). Agency problems arise when the principal and the agent have different risk preferences, introducing, in addition to asymmetry problems, adverse selection problems. This situation is amplified when the entrepreneur exerts opportunistic behaviour and moral hazard to negotiate better financial terms with the venture capitalist (Amit et al., 1998). Various authors have recognised that performance measures provide a possible solution to these problems (Feltham and Xie, 1994; Lothe et al., 1999).

Nevertheless, measuring performance in a social venture is complex because we have to measure the social impact of its activities on society, which is often unaccompanied by straightforward economic value. This value can be difficult to capture with conventional accounting methods, which were conceived to monitor other types of performance (Schaltegger and Burritt, 2000). Traditionally, companies have focused mainly on financial performance measured through different recognised standards and non-financial indicators that are able to provide companies with early signals about the company's ability to create economic value (i.e., value drivers, key performance indicators, and balanced scorecards). However, there is still no shared framework for the measurement of the impact on society (Arena et al., 2015; Maas and Liket, 2011). This challenge is also amplified by the availability of data and information. To build meaningful information about the impact of a social venture, various dimensions should be assessed (Elkington, 2004; Willard, 2002).

Accordingly, the main research question is as follows:

7. How does one define an approach to measure social value?

To answer this question, different issues related to the measurement problem should be addressed, such as defining specific metrics, the needs and risks associated with standardising the metrics and the approaches, and the development of a stable monitoring system.

3.3. Development of the regulatory framework

Finally, as highlighted in the previous analysis, the last crucial element for the development of social tech start-ups is represented by the complex relationship with the public sector, which can play different roles in fostering the SII market and in helping to overcome barriers to the financing of social tech start-ups.

According to the most up-to-date literature, there remain different forms of public governance models for SII. Governments act as regulators of the market if they approve legal acts and laws to govern SII (Addis, 2015; Oleksiak et al., 2015; Wells, 2012), and they can act as investors if they provide capital directly to social businesses (Buzzacchi et al., 2013) or indirectly invest in intermediaries (Castro Spila et al., 2016; Moore et al., 2012). Finally, they can also play the wider role of stewards, in which governments can create a facilitative infrastructure (Schwartz et al., 2015) that – particularly in the beginning phases – is necessary to ensure social investees' and investors' readiness by establishing, for example, new specialised institutions, networks, and capacity-building programs (Glänzel and Scheuerle, 2015; Wells, 2012).

To date, governments have been supportive of the SII market in just a few pioneering countries, such as the UK, the United States and Australia. From this perspective, it could be interesting to understand if it is possible to determine a contingency model to relate different policy approaches to the features of a specific area in which SII is still developing. Following the insights provided by organisational contingency theory, which contends that there is no one best way to lead or manage an organisation or to make decisions (Fiedler and Garcia, 1987; Tarter and Wayne, 1998), the contextual factors that affect the intervention of the public sector in the SII market and favour one specific role could be deepened by exploring the following research questions:

- 11 To what extent should SII markets be regulated?
- 12 Given the characteristics of the SII market to address market failure, what kind of role can the government play?

Finally, it is worth mentioning that a few countries in Europe have created a supportive legal environment for social tech start-ups. Many have adapted existing legal forms to account for their specific characteristics or created a new legal status. The lack of fiscal incentives to invest in these enterprises and the limit to profit distribution, however, make this regulatory framework incoherent with the needs of the SII market. Only in France and the UK do exemptions exist for investors in certain social ventures.

Therefore, we can raise a question about the efficiency of the existing regulatory framework:

13 Are the existing regulatory frameworks for social ventures supportive of their investment readiness?

Table 2 Research agenda.

Area of investigation	Barriers	Reference theory	Research questions
Demand and supply matching	Further difficulties in obtaining resources	Resource Based view	What capabilities can help SEs engage different types of financiers and, in particular, access SII?
	Lack of managerial and financial skills		Does the provision of non-financial services from investors enhance the survival of the social venture?
	Lack of collaterals		How can investors account for social capital in their decision-making process?
Accountability issue	Need of balance the "social" stakeholders and "economic" stakeholders' interests	Stakeholder Theory	What are the potential tensions between financial investors and the other groups of SE stakeholders, and how do they evolve?
	Lack of measurement system for social value	Agency theory	How does one define an approach to measure social value?
Regulatory framework	Lack of public sector intervention	Contingency Theory	To what extent should SII markets be regulated?
			Given the characteristics of the SII market to address market failure, what kind of role can the government play?

4. Conclusion

The intuition that inspired this reflection is that, when a high-tech start-up adopts a "social mission", it may become simultaneously much more difficult or much simpler to access financial resources for growth. In other words, the coexistence of business and social impact objectives in the entrepreneurial mission defines a complex and articulated system of trade-offs that entail new barriers to access to financial resources and a set of new opportunities.

To provide consistency to this intuition, this paper performed a critical analysis of the solutions that can be employed to finance social tech start-ups in light of the social and technological trajectories that are currently shaping the broader social innovation ecosystem. More specifically, this paper aimed to overcome uncertainty regarding how social tech start-ups can access financial resources, barriers that these organisations face in searching for finance and the financial instruments that are most suitable to their financial needs by introducing the emerging practice of SII and discussing its potentialities and limitations. Accordingly, we analysed the main barriers that social tech start-ups encounter in accessing financing in different lifecycle stages, highlighting how they inherit many of the barriers that are typical of high-tech start-ups in the early lifecycle phases.

The analysis also showed that these barriers are often further amplified by the hybrid nature of social tech start-ups, which is reflected in their twofold aim of intentionally addressing a social need and safeguarding financial return. Hybridity might be a source of confusion because these ventures do not fit neatly in either the for-profit or the non-profit categories (Bridgstock et al., 2010), which impact the volume and speed of the returns generated by social tech start-ups. These organisations aim to generate a blended value in which potentially lower financial returns are compensated by social returns. In addition, the time horizon needed to create social value is often higher than pure financial value (Murphy and Coombes, 2009; VanSandt et al., 2009). In contrast, hybridity can also help social tech start-ups overcome some of the above barriers (Doherty et al., 2014) because hybrid organisations can rely on a wider range of sources of different natures, engaging both commercial financiers and those interested in supporting social issues (Chertok et al., 2008; McCarthy, 2012; Rago and Venturi, 2014) and attracting both market and non-market sources of external finance (Teasdale, 2010).

In this landscape, we introduced SII as a promising solution to the financing needs of social tech start-ups. This emerging practice introduces a dimension in addition to risk and return that should drive investors' decisions: i.e., social impact. The intention to generate social value, which can be quantified, sets SII apart from other forms of responsible investments. Considering that this issue has been largely unexplored in the literature, even due to the novelty of the phenomenon from a business perspective, we used the case of social tech startups as paradigmatic of the broader problem of financing mechanisms for social innovation to formulate a research agenda including directions for research and theoretical development in the SII field.

Our analysis shows that, even though SII has attracted a great deal of attention, there is little empirical evidence on this phenomenon, and the dynamics related to its development and evolution remain largely under-theorised. A recent call was put forward by Daggers and Nicholls (2016), who note that the contributions on this phenomenon are scarce in the academic literature, and there is a need for research disentangling the multiple factors that (may) contribute to SII's rise and development. By drafting a research agenda (Table 2), we attempted to respond to this appeal, identifying several primary themes that academics should urgently address. The agenda encompasses three main issues that emerged as priorities from the literature analysis – demandsupply matching, the development of a proper accountability infrastructure and the development of a regulative framework – with a clear role played by public actors.

Therefore, this paper contributes to the SII field by identifying aspects that need to be further investigated to understand if and how SII responds to the financial needs of social ventures and how this field could develop. The originality of this work within the SII literature consists of assuming a demand-side perspective. We believe that, to be able to understand and anticipate future trajectories in the SII market, understanding the link between the demand side and the supply side is crucial (and has been disregarded to date in academic works, which have focused mainly on the supply perspective).

We would like to stress the relevance and the role of academic research in relation to other kinds of research and to clarify the position academics might assume within the institutionalisation of the wider SII landscape. Why it is important for academics to engage in this area of investigation?

The answer to this question very much depends on the nature of academic research and SII's maturity level. In the emerging phase of the phenomenon, the existing literature on SII is still dominated by practitioners and purely anecdotal evidence. However, after approximately seven years since the formulation of the concept, SII needs conceptual models that are able to interpret and explain its characteristics. Academic research should assume this role because it is grounded in a pre-existing set of established theories and datasets that can ensure rigorous and sound results. We developed a research agenda on the efficiency of SII in financing social tech start-ups to reinforce and narrow the call advanced by Daggers and Nicholls about the need to generate new empirical data and translate new knowledge into findings that can be used by both academics and practitioners. We believe that a broader knowledge base is necessary to ensure the growth and institutionalisation of SII.

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Marika Arena is Associate professor at Department of Management, Economics and Industrial Engineering at Politecnico di Milano. She teaches management control systems and management and business administration and she also teaches in several master and post-graduate courses at MIP. Her research interests are in three areas: the definition of performance measurement systems in specific contexts; sustainability as a source of competitive advantage, risk management and internal auditing. In these fields, she is author of numerous scientific publications in national and international journals. She participated in several funded project in the area of management control systems, performance management and sustainability management.

Irene Bengo is researcher in Management Engineering at Politecnico di Milano, focusing on performances measurement systems for social business and on reconversion/recycling business model at industrial level. She is involved in sever consultancy projects aimed to measure the socio-economic impact of both large companies and social enterprises. She took part in the work of G8 Taskforce on Social Impact Investment (SIIT) and she is a coordinator of "National observatory of Social enterprises". In 2012 she was national consultant for UNIDO as expert on Social Business and performances measure. Since 2009 she is president of Engineering Without Borders Milan.

Mario Calderini has graduated in Mechanical Engineering at Politecnico di Torino and has completed a PhD He is Full Professor at Politecnico di Milano. He is deputy director of Alta Scuola Politecnica. From 1994 to 2013 has been Full Professor and Researcher at Politecnico di Torino. He is counselor of the Minister of Education, University and Research. He is member of G8 Task Force for Social Impact Finance, member of Jury in the European Commission Social Innovation Competition and he is Italian delegate in the European Commission of High Level Expert Group for Digital Agenda.

Veronica Chiodo is a PhD at the Department of Management, Economics and Industrial Engineering of Politecnico di Milano. She completed her Master of Art degree in Social Economy in 2014 at University of Bologna. Her research focuses on social innovation, specifically looking at new financial approaches able to support social innovation projects. She took part in the work of G8 Taskforce on Social Impact Investment (SIIT) as supporting staff and member of the Working Groups on Measurement of Social Value and Best Practices. She is the project manager of POLISIF, the Observatory on Social Impact Finance of Politecnico di Milano.

PAPER 3: The social impact investment race: toward an interpretative framework

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The social impact investment race: toward an interpretative framework

Mario Calderini, Veronica Chiodo and Fania Valeria Michelucci Politecnico di Milano, Milano, Italy

Abstract

Purpose – This paper aims to develop an interpretative framework of the evolution of social impact investment (SII) in different countries. SII is a strategy of asset allocation, which combines financial profitability with a measurable social and environmental impact.

Design/methodology/approach – Through a thematic analysis of 75 documents, i.e. reports, experts' considerations, reflections on practitioners' experience, meetings' minutes, written by the SII Taskforce of the Group of Eight and the relative National Advisory Boards, the authors identify the main themes connected to the topic of SII development and recognize four main elements useful to segment the market, namely, information asymmetry, financial instruments, source of capital and market intermediation.

Findings – They map the ongoing practices in the Group of Eight's members and distinguish two speeds in the evolution of SII: on one hand, there is a group of roadrunners, which pave the way to SII and in which SII activities have being institutionalized; on the other hand, there is a wider group of chasers, where the SII infrastructures lack any systematization.

Originality/value – Although some authors provide preliminary interpretations of the SII evolution, they mainly focus on the national level and do not provide any cross-countries analysis. The findings of the present work contribute to overcome the lack of evidence characterizing the SII field and the absence of comparable and consistent data at the global level by filling the academic literature about SII, through a structured interpretative framework.

Keywords Thematic analysis, Market infrastructure, Impact investing, Social finance, Social impact investments

Paper type Research paper

1. Introduction



European Business Review Vol. 30 No. 1, 2018 pp. 66-81 © Emerald Publishing Limited 0955-534X DOI 10.1108/EBR-10-2016-0134 About ten years ago, many related factors triggered some innovations in the social finance's spectrum. Indeed, even though blended strategies of capital allocation cannot be traced back, recently the spotlight has been turned to a more proactive approach (Nicholls and Emerson, 2015). The dissatisfaction with the bad habits of the financial system, the ineffectiveness of charitable models and the inefficiency of public spending, together with the worsening of the most urgent problems of our time, called for higher effectiveness in capital allocation for the provision of social services. That is how some pioneering foundations and financial intermediaries (Höchstädter and Scheck, 2015) started to envision what is now labelled as social impact investment (SII). SII is a strategy of asset allocation to intentionally finance projects that combine a measurable social and environmental impact with economic sustainability and financial returns (Clarkin and Cangioni, 2015; Oleksiak *et al.*, 2015). SII has its place within the social finance spectrum, distinguished by three features: first, social and environmental returns are not incidental, but *a priori* defined and ex post measured; second, proactive approach is used in the

search of social impact (Ngoasong *et al.*, 2015); and third, the expectation of at least the repayment of the capital sets it apart from philanthropic activities (Nicholls and Emerson, 2015). SII is different and narrow than the broad notion of *social investment* intended as new paradigm for social policies rooted in the neoliberal discourse (van Kersbergen and Hemerijck, 2012); thus, scholars have added the term *impact* to distinguish it and stress the primacy of the social mission as investors' motivation (Daggers and Nicholls, 2016). Therefore, under the label of SII scholars include all investments made through private equity, debt, guarantees, deposits and new innovative instruments in organizations (no matter the legal form they have), funds and public equities market – based both in developed and developing countries and operating in different sectors – where the investors' overarching motivation is the achievement of a social impact (Höchstädter and Scheck, 2015).

Begun as some isolated and uncoordinated experimentations, SII is gradually evolving and sometimes it is even pinpointed as a market niche. Despite the interest around SII, so far the phenomenon has been discussed mainly by practitioners, with the resulting prevalence of storytelling and anecdotal narrative (Daggers and Nicholls, 2016; Hazenberg *et al.*, 2014). SIIs suffer from a lack of a methodologically structured and comprehensive framework able to identify the infrastructure of this market, i.e. the underpinning facilities to let the system work. This absence of clarity and the limited interpretative potential of the existing literature make it challenging to analyze effectively the evolving SII practices across countries.

Thus, there is sufficient room to perform more rigorous and objective analyses about how SII has evolved worldwide. Daggers and Nicholls (2016) identify the main areas that deserve academic research: data and transparency, role of government and fields' segmentation. The latter is the wider realm to be explored because segmenting the domain according to different perspectives enables the identification of different practices, trends and needs and enhances the knowledge of the market. Moving from these gaps, our objective is to develop an interpretative framework of the cross-countries' SII evolution. The framework helps to structure the description of how the essential facilities of SII market are shaped in practice and their implications on the growth of the market.

To achieve this objective, we perform a thematic analysis. Indeed, the thematic analysis is a flexible and a powerful method to interpret a phenomenon by comparing and contrasting practices across different segments, geographies or stakeholders (Ngoasong, 2014; Zilber, 2007). Easily, themes work as organizing principles, which help to give a structure to the narratives and interpret how people construct and understand a phenomenon (Zilber, 2007; Attride-Stirling, 2001). We analyzed the documents written by the Group of Eight (G8) SII Taskforce and its National Advisory Boards (NABs). They consist of reports including experts' considerations, reflections on practitioners' experience and meetings' minutes. Started in 2014, the work of the G8 SII Taskforce has connected hundreds of prominent experts and players in the field and has stimulated an organic thought around the topic, flown into several regional and international reports, which, currently, represent the most comprehensive picture of the SII ecosystem worldwide.

The rest of the paper is articulated as follows. First, we present the theoretical lens that drove our analysis; thus, we illustrate the methodology adopted and outline the results of the thematic analysis. Then, we discuss the results and conclude with some final remarks. Social impact investment race

EBR 2. Infrastructural elements in social finance's evolution

The literature review was conducted analyzing the academic works on SII identified by Daggers and Nicholls (2016) and enlarging their list through a snowball approach and a replication strategy focused on years 2015 and 2016.

The academic research about SII is concentrated in about 50 published works (Daggers and Nicholls, 2016). Some of them focus on real-word examples to study the functioning of specific financial instruments (Warner, 2013; Joy and Shields, 2013; Mchugh et al., 2013; Jackson, 2013; Nicholls and Tomkinson, 2015a; Stoesz, 2014; Arena et al., 2016), barriers to SII (Nicholls, 2010; Glanzel and Scheuerle, 2016; Mendell and Barbosa, 2013; Schwartz et al., 2015; Ormiston et al., 2015) and public policies for SII (Andion et al., 2012; Wells, 2012; Wood et al., 2013; Addis, 2015; Spear et al., 2015; Hazenberg et al., 2014). Other authors offer a mathematical modeling (Brandstetter and Lehner, 2015; Nicholls and Tomkinson, 2015b; Nicholls and Patton, 2015; Chowdhry et al., 2015). Few of them propose a theoretical conceptualization of the SII phenomenon (Nicholls, 2010; Bell and Haugh, 2015; Ormiston et al., 2015; Lyons and Kickul, 2013; Hebb, 2013; Mulgan, 2015; Oleksiak et al., 2015; Geobey et al., 2012; Moore et al., 2012; Young, 2015). The opinion of the authors is that a very comprehensive and detailed analytical framework has been provided by Schwartz et al. (2015). They highlight the need to build an intellectual groundwork to develop the SII field. It encompasses the generation of new ideas and the dissemination of new models and success stories, sectorial networking, grey research and also the engagement of academic institutions in the field. Besides these activities, the authors also identify three main infrastructures. They are defined not as physical systems but, more in general, as the facilities that should be considered to grow the SII marketplace and let it function, such as regulations, standards or transactional channels. The first one is the governmental infrastructure. Governments have several options to enable the SII development. To this aim, governments can act as market's regulators or facilitators (Addis, 2015; OECD, 2015). On the regulative floor, the states can support the growth of the market's demand and the fundraising activities (Schwartz et al., 2015; Oleksiak et al., 2015; Grieco, 2015; Ormiston et al., 2015) or release legal constraints to favor the flow of money into the sector (Schwartz et al., 2015). In addition, governments can themselves be social impact investors (Addis, 2015; Steinberg, 2015; Wells, 2012) by directly investing into social enterprises, by giving up a revenues' quota, for example, in terms of tax incentives and fiscal policies or by preferring social providers during the procurement procedures (Addis, 2015; Schwartz et al., 2015; Spear et al., 2015; Oleksiak et al., 2015; Grieco, 2015).

The second element is the facilitative infrastructure. It is devoted to connecting parties and ensures that they are ready to receive or undertake SII. Much of this relates to the activity carried on by generalist professionals, service firms or specialized consultancies (Schwartz *et al.*, 2015). Indeed, the standing literature remarks that there is still a lack of infrastructures in terms of instruments and advisers (Glanzel and Scheuerle, 2016; Hazenberg *et al.*, 2014; Mendell and Barbosa, 2013). Also social impact assessment and reporting is included in this pillar (Schwartz *et al.*, 2015; Addis, 2015; Clarkin and Cangioni, 2015; Mendell and Barbosa, 2013; Oleksiak *et al.*, 2015; Ormiston *et al.*, 2015). In particular, investors need methods and metrics to measure the social performance of the investment and evaluate the social risk to build their portfolio (Mendell and Barbosa, 2013). These factors are relevant to the SII development because they affect the level of transaction costs and limit the entrance to the market.

Transaction costs will remain high until the transactional infrastructure – the third element – is established (Schwartz *et al.*, 2015). In terms of source of capital, organizations devoted to support social initiatives can be not only charitable trusts, foundations,

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development banks and HNWIs (Nicholls and Emerson, 2015; Ormiston *et al.*, 2015) but also SII funds and institutional investors (Glanzel and Scheuerle, 2016; Ormiston *et al.*, 2015; Brandstetter and Lehner, 2015; Oleksiak *et al.*, 2015), retail investors (Lehner and Nicholls, 2014; Nicholls and Emerson, 2015) or financial institutions and investment banks (Schwartz *et al.*, 2015). In terms of source of after-market liquidity, innovative financial products should be structured and exit opportunities should be provided, although at the moment exit strategies and portfolio management options are very limited (Addis, 2015; Mendell and Barbosa, 2013; Schwartz *et al.*, 2015).

Some authors provide interesting preliminary insights about how the presence or absence of the three infrastructures has helped the evolution of SII. Michelucci (2016) considers the Italian case with the aim to study how SII has developed and the roles that organizations can play to build these market infrastructures. Also, other authors have already considered the progress of SII industry in specific countries. That is, Thillai Rajan *et al.* (2014) provide a perspective of SII in India, Glanzel and Scheuerle (2016) discuss impediments of SII considering the German case. Andion *et al.* (2012) discuss the SII infrastructures in the Brazilian case, while Kromminga (2016) studies the evolution of SII in Germany and makes a comparison with the UK. However, these studies mainly focus on the national level and offer neither any systemic examination nor segmentations of the SII evolution, leading to the aim of our study.

3. Methods

This paper is based on a thematic analysis (Marshall and Rossman, 1999) of the documents written by the G8 SII Taskforce and its NABs during the period 2014-2016. In June 2013, during the UK's presidency of the G8, Prime Minister David Cameron announced the launch of an independent Taskforce aiming at "catalysing a global market in impact investment in order to improve society". It has engaged more than 200 people across seven countries (the UK, Canada, France, Germany, Italy, Japan and the USA), plus the European Commission. They were representatives from the social sector, private sector, government officials and representative of development finance institutions, as well as mainstream financial institutions, academia and Australia and Organisation for Economic Co-operation and Development (OECD) as observers. The group was organized into NABs, composed by domestic members from within each country, and working groups (WGs), focused on specific topics, namely, impact measurement, asset allocation, mission alignment and international development. Both NABs and WGs, during their works, wrote several documents and, in September 2014, published some final reports. These documents represent the result of a collective effort to depict the most comprehensive picture of SII worldwide. Currently, the Taskforce has been transformed into the Global Steering Group on SIIs, with the function to monitor the implementation of the Taskforce's recommendations. This transition has entailed the entrance of new countries in the membership, namely, Brazil, Israel, India, Portugal and Mexico.

The thematic analysis is the structuring and interpretation of collected data in principal concepts, by the identification of prominent or recurrent themes. A theme represents a pattern or meaning within data, which captures something important in relation to the overall research question (Braun and Clarke, 2006; Dixon-Woods *et al.*, 2005). Thus, the thematic analysis is an accessible and theoretically flexible approach to map an intellectual field into major themes and sub-themes (Attride-Stirling, 2001; Braun and Clarke, 2006; Jones *et al.*, 2011). We relied on the protocol of Marshall and Rossman (1999) to increase the consistency and reliability of the study. First, 75 documents were collected and organized in the classification matrix reported in Table I, depending on their type and geographical focus.

Social impact investment race

EBR 30,1	Focus of documents	National AB Report	State of art	Recommendations' tracker	Meetings' minutes
70	Local Focus	1 Australia 1 Brazil 1 Canada 1 France 1 Germany 1 Italy 1 Japan 1 Portugal 1 UK AB 1 US AB	3 Brazil 2 Israel 2 Mexico 2 Portugal	3 Australia's updates 2 Brazil's updates 3 Canada's updates 5 France's updates 5 Germany's updates 2 Israel's updates 4 Italy's updates 4 Japan's updates 2 Mexico's updates 2 Portugal's updates 6 The UK's updates 5 The USA's updates	-
Table I. Document's classification matrix	Global Focus	1 WG Asset Allocation 1 WG Measuring Impact 1 WG International Development 1 WG Mission Alignment 1 G8 International report 1 G8 Explanatory notes for Governments	-	_	6 G8 meeting's minute

The type was one among the following four: report produced by the NABs or its WGs, state of the art of SII diffusion country by country, recommendations' trackers of the status of application of G8 Taskforce's advices and minutes of G8 Taskforce's meetings. The geographical focus was local if documents mainly refer to a special geographic area or global if they analyze the SII phenomenon worldwide. After the documents' classification, we started the analysis driven by the framework developed by Schwartz *et al.* (2015) illustrated in the previous section. We used the different market infrastructures as the base for the generation of the categories. Thus, documents were coded through the software NVivo.

The coding process consisted in a double reading. First, we did a literal reading to have a picture about the overall content and how SII practices are described in the documents under analysis (Ngoasong, 2014). Then, we started a coding reading: data were reduced through the coding framework illustrated in Section 2 (Attride-Stirling, 2001). After that, we contrasted and compared the pieces of coded text, looking for common patterns, repeated and emphasized concepts and synonymous (Ngoasong, 2014; Brunard et al., 2008; Lieblich et al., 1998). As we recognized salient, common and significant arguments, we summarized them in more abstract principles, which represent the overreaching themes (Attride-Stirling, 2001; Brunard et al., 2008; Zilber, 2007). Table AI in Appendix shows the process from the creation of categories to the synthetization of themes. The "keyness" of a theme depends on its pertinence with the research question and objectives, the number of different documents in which the theme is articulated, the occurrences of the concepts and the emphasis put on them (Braun and Clarke, 2006). Finally, the resulting themes were reiteratively refined to accommodate new arguments and obtain discrete, specific and non-repetitive themes, which are abstracted enough to cluster the coded text segments (Attride-Stirling, 2001). We validated our results by working separately, comparing our coding and discussing discrepancies. Finally, we triangulated the results with the standing theory.

4. Results

During the analysis, six main themes were identified. They are presented in this paragraph according to the theoretical framework of Schwartz *et al.* (2015), which drove us during the analysis. The different initiatives and players that we report have been identified within the coded documents and help us to describe the different themes.

4.1 Government infrastructure

This first infrastructure refers to the instruments available to governments to support the SII development. SII stakeholders agreed that "government had a fundamental role in creating an enabling environment" and "government leadership and even relatively modest and targeted policy initiatives (often re-purposing existing spending) can play a positive role catalysing market activity" (G8 International Report). Specifically, they highlight the need of "state supported SII funds, perhaps with a regional focus" and to "address legislative and policy barriers" (G8 Explanatory notes for Governments). Therefore, two main themes allow assessing the evolution of SII: *market regulation* and *public financing*.

In terms of regulation, some governments have reviewed the legal definition of social businesses. Israel and Canada defined the requisites to be a social business; Italy introduced the B-corporation as a legal form and the Social Enterprise reform is a few steps from the approval; and Japan approved the "Local Management Company" status. On the supply side, in France, according to the 90/10 rule, pension funds can invest into funds that allocate the 5-10 per cent of their capital to social enterprises, while the Portuguese government passed the new regulation for social entrepreneurship investment funds. However, besides these isolated examples, our analysis reveals that the countries under the lens suffer from a lack of systematic regulatory framework able to incentivize SIIs. Moderately different are the cases of the UK and the USA. In the UK, the Cabinet Office approved several pieces of legislation related to SII: the Social Investment Tax Relief, the Dormant Account Act, the Social Value Act, the Community Investment Tax Relief and the review of intermediaries' fiduciary duties. Similarly, the US Congress clarified the pension funds' fiduciary duties by updating the Employee Retirement Income Security Act (ERISA), approved the New Market Tax Credit and the legislation about new social enterprises' corporate form passed in several states.

In terms of public financing, the analysis acknowledges the effort of lobbing governments to channel public funds into the sector. In some cases, this fact has driven governments to commit grants and catalytic capital to SII, with the aim to match private investments and assume first loss layers' positions. In Japan, the New Public Initiative committed \$86m to social start-ups; in Israel, the government co-funded two SII funds; in Canada, the Quebec government co-invested into the Chantier de l'Economie Sociale; the Portuguese Government approved the Portugal Innovacao Social program. Other countries, such as Italy and Mexico, are even behind. On the contrary, in the UK, the supply of capital for SII is heavily dominated by the public sphere. As a matter of fact, the Investment Readiness Programme allocated $\pounds 20m$ to SII, half to the Investment and Contract Readiness Fund and the other half to the Social Incubator Fund. The Social Outcome Fund and the Big Lottery Fund are other examples, which support this result. Our analysis shows that in the case of the UK, the government invested indirectly through Big Society Capital, a wholesaler established from the enactment of the regulation on the use of unclaimed assets. Similarly, also in the USA, both at central and federal level, several funds have been approved, such as the SII Small Business Investment Company Initiative, the Nonprofit Finance Fund and the Federal Social Innovation Fund.

Social impact investment race Finally, some of the analyzed governments, namely, the UK, the USA, Israel, Portugal, Germany, Mexico, Canada, and Australia, have financed the growth of the SII market using their purchasing power. They have experimented pay for success schemes, a form of contract where the buyer pays for achieved social outcomes rather than for produced outputs. Especially the UK and the USA are where more sophisticated schemes, such as social impact bonds, have been experimented first and most.

4.2 Facilitative infrastructure

The facilitative infrastructure refers to the services required to ensure the social investees and investors' readiness. It includes the facilities in the space of counselling and incubation, whichhelp social organizations to consolidate their business models and showcase their impact. It is acknowledged that "only a small share [of social organizations] is currently in a position to record its impact and utilize the results as a steering instrument". The WG on International Development suggests "that grant and investment resources [...] should be used to provide direct support to bolster the growth of local intermediaries and companies".

According to our results, SII deals lack reliable track records. The theme of *information asymmetry* frequently recurred in the documents and was mentioned among those elements that influences the market development. The Canadian report claims that "the limited track record of impact investment opportunities has deterred some investors" and "there remains a lack of comprehensive and fundamental empirical knowledge that can satisfy the needs of social investors" according to the German report. Indeed, when knowledge is limited and statistics do not favor the decision process, investors are dissuaded from taking the first mover risk. Results demonstrate that there is a growing development of impact measurement systems and metrics, such as the Global Reporting Initiative, or repository of indicators, such as the Impact Reporting and Investment Standards, the Global Value Exchange Initiative, and the GIIRS, or proprietary measurement tools and methodological approaches. Australian experts states that:

[...] work is underway around the globe to map and build the baseline data and investment benchmarks that are needed for institutional investors to assess performance of impact investment products and make allocations that integrate risk, return and impact.

However, seldom they are used to track investments' results and even more rarely to make cross-country comparisons. Moreover, the approach varies by countries. In some cases, such as Australia, Japan, Portugal, the USA, Germany and France, there is the tendency to converge toward "standards and guidelines for social impact measurement and reporting", while in other cases the NABs recommended to develop a methodological approach rather than a standard to guarantee flexibility and a certain degree of comparability between deals, or to delegate the function to a third-party certification system. Whatever the approach, at present, no single measurement system has reached the critical mass to be considered a standard; thus, in this fluid phase, there is a variety of tools on paper, which are sporadically used in practice.

4.3 Transactional infrastructure

The transactional pillar refers to the infrastructure needed to lower transaction costs, which includes the source of capital for SII, as well as the activities of financial intermediaries and investment instruments (Schwartz *et al.*, 2015). "SII market appears highly disconnected and different types of intermediaries are needed to developing new ways of financing social organizations" (UK Report). Our analysis identified three themes, which are important in the SII development.

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First, *private capitals.* "Impact investment is emerging from existing institutional contexts including established capital markets and philanthropic traditions" (Australia Report). The results show that private investors are mainly well-established organizations with philanthropic mission. Foundations and charities resulted to play a pioneering role in developing the SII market, especially in the USA and the UK. Here, some remarkable examples are the Bill and Melinda Gates Foundation and the MacArthur Foundation in the USA, Esmée Fairbairn Foundation in the UK, the Rockefeller Foundation in both the USA and the UK. Even if public funding is very limited, it still represents the main source of capital. Institutional investors, such as insurance companies or pension funds, still remain at the margin, both for skepticism and legal uncertainty.

Pension and life insurance funds are already considered to be two of the most important sources for socially responsible investments in a wider sense. However, the strict regulation faced by these entities [...] represents a great challenge with regard to involvement in SII (German Report).

In the USA, the new guidance on the Employee Retirement Income Security Act (ERISA) admits that private pension funds consider environmental, social and governance factors in the investment decisions.

Also, investments from retail customers are very rare. Seldom do the customers directly invest into social recipients nor do retail banks manage SII products. However, the retail segment emerged as a potential source of capital and tailored vehicles or products, for example, "France is also the only country in the world that has a sector for solidarity-based financing by individuals (general public), underpinned by individual and collective employee savings schemes (company savings plans)" or community shares in Japan and the UK, are attracting a lot of interest. In Portugal, the Portuguese Financial Service Authority allowed non-qualified retail investors to invest their capital in the European Social Enterprise funds, even if with some limitations.

Second, *private intermediation*. Our analysis reveals that commercial and investments banks, as well as specialized financial intermediaries and advisers offer products or services targeted to social enterprises. Alternatively, they manage funds set with philanthropic or public capitals, which invest in social recipients. In Italy, France, Australia, Canada and Portugal some specialized and generalist banks manage tailored loan-based products for social enterprises. Results show that the specialization of intermediaries is significant especially in the UK and the USA. In the UK, relevant examples are Bridges Ventures, Nesta, ClearlySo, Social Finance, Big Issue Investment and Triodos Bank. In the USA, large financial institutions such as Goldman Sachs, Deutsche Bank, Morgan Stanley and J.P. Morgan have set SII funds and SII advisers have been born, such as Social Finance US and Imprint Capital.

Finally, *financial instruments*. The results present a quite homogeneous picture. Investments usually take the form of loan or venture philanthropy. Specialized and commercial banks, foundations and charities are slowly experimenting forms of venture philanthropy directed to social recipients. Indeed, the examination displays that SIIs are usually identified as venture capital initiatives focused on social-like sectors. Moreover, also examples of bonds-like instruments proliferate: community bonds in Canada, social impact securities in France, social bonds in Italy and saving bonds in Germany. They are usually bonds issued by organizations to finance special social programs. Sometimes, they are charitable bonds, when the issuer devolves a part of the raised capital to social organizations.

5. An interpretative framework of social impact investment evolution

The results of this paper, whose aim is to develop an interpretative framework of SII evolution at the global level, come out from a thematic analysis of 75 documents. They

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consist of reports including experts' considerations, reflections on practitioners' experience and meetings' minutes. Documents were selected because they resulted from the effort of hundreds of experts coming from different professional areas and depict the most comprehensive information about the state of evolution of SII in 12 countries worldwide. The use of thematic analysis was coherent with our objective to identify the main themes related to the SII market development and identify analogies and differences in the way countries face them. Indeed, our investigation unveils many signals of an increased advancement of the SII market in terms of general interest from investors and economic value of the initiatives; however, they are countervailed by a significant prudence and heterogeneity in instruments and approaches. We isolated six themes, which can be useful to draw an interpretative framework of the SII advancement, namely, market regulation, public financing, information asymmetry, private capitals, private intermediation and financial instruments. Concerning the government infrastructure, which refers the instruments available to governments to support the SII development, we identified the themes *market regulation* and *public financing*; as for the services required to ensure the social investees and investors readiness, i.e. the facilitative infrastructure, the two themes emerged from the analysis are *information asymmetry* and *private intermediations*. Lastly, the themes *private capitals* and *financial instruments* are related to the infrastructure needed to lower transaction costs, thus source of capital for SII, labeled as transactional infrastructure.

With regard to information asymmetry and financial instruments, the countries under the lens present a similar progress. On the front of *information asymmetry*, according to literature (Arena *et al.*, 2016), the analysis enlightened a wide variety of measurement tools to assess the performance of the investment, usually developed *ad hoc* by both investors and public bodies. However, at this stage, there is a general lack of a homogenization and reconciliation among these metrics. Besides the problem of defining measurement technicalities, the ulterior open issue is the definition of governance models able to ensure reliability, accountability and liability to any transaction in the SII market. This also means that the measurement standards could be intended as emergent properties of the market rather than standards imposed through a top-down, *de jure* approach.

On the front of *financial instruments*, the general approach common to all the countries is a prudential preference for debt-like instruments and debt-based venture philanthropy, generally mixed with grants. This fact not only confirms the idea that charitable trusts and foundations' capitals are the money able to activate the market (Nicholls and Emerson, 2015; Ormiston *et al.*, 2015), but also dispels the myth of SII because of sophisticated financial engineering (Mendell and Barbosa, 2013; Schwartz *et al.*, 2015). Thus, SII worldwide has ambitious goals in theory, but, in practice, it is still biased toward grant making in the social finance spectrum.

With regard to the other four themes identified in this paper, they paint a more heterogeneous state of development of SII in different contexts. Coherently with the previous result, *private capitals* come mainly from charities and foundations. Especially in the UK and the USA, they have played a catalytic role and their presence in the SII ecosystem is well established. On the contrary, institutional investors, such as pension funds and insurance companies, are still looking from a distance, whereas high net worth individuals are still reluctant to massively engage in this new market. Thus, in spite of an ever-increasing number of private initiatives supporting pilot projects and experimentations, the market is still far from reaching the critical mass needed to trigger the definitive consolidation of SII as a new asset class. The lack of large scale private initiatives is only partially compensated by public policy initiatives, notwithstanding the relatively high degree of attention that most

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governments are paying to SII (Addis, 2015; Schwartz *et al.*, 2015; Oleksiak *et al.*, 2015; Steinberg, 2015). Public support is articulated in many different forms but is still confined to prototypes and small-scale initiatives, with the sole exception of the USA and the UK. Indeed, here, public SII programs have overtaken the experimental dimension and they result from a more systematic and strategic approach to this form of investment. Thus, the source of capital is a useful perspective from which to interpret the SII evolution. The following matrix resumes the evolution of SII sources of capitals in the G8 countries (Table II).

Finally, the remaining two themes assess the stage of development in terms of types of market intermediation. With this term, we refer to the intermediary's activities that help to decrease transaction costs, reduce the legal uncertainty in the market and connect investors and recipients. The results showed that smart *regulation* has not been an established issue on the political agendas vet. Worldwide, governments are still very cautious in endorsing the SII market development, although it would benefit from a public intervention directed to lower the level of risks and provide capacity-building funds. The sole exception is represented by the UK and the USA, where several reforms and acts have been approved as also emerged from the literature (Oleksiak et al., 2015; Addis, 2015). Again, market regulation allows to distinguish those markets with advanced practices from the countries where only some solitary pieces of legislations have passed. Besides public regulation, private intermediation also resulted to be a relevant element to segment the field. Specialized and commercial banks have tailored products and services to answer to the needs of social enterprises. They have the form of loans, guarantees schemes, soft or peer lending and affordable mortgages. Moreover, in the UK and the USA, there is an increasing specialization of advisers and intermediaries and the entrance of investment banks in this space. The following matrix (Table III) maps different stage of progress in relation to market intermediation.

6. Conclusions

Moving from the themes identified during the analysis, this paper has drawn an interpretative framework to evaluate the SII evolution by comparing the industry's progress in different countries. We have used the concept of infrastructure to identify the facilities needed to let the market grow and then we have isolated six themes that refer to those facilities. These themes are the dimensions of the interpretative framework resulting from

	Private capitals		
Themes	Experimental	Established	
Public Financing Systematic Experimental Behind	Canada and Australia Japan, Portugal, Israel and France Italy, Mexico, Brazil and Germany	US and UK	Table II. Source of capital
	Districture Pairs		
Themes	Experimental	Established	
<i>Market Regulation</i> Established Solitary	Canada and Australia Italy, Japan, Portugal, Germany, Israel, France, Mexico and Brazil	US and UK	Table III. Market intermediation

Social impact

the analysis. Considering how these dimensions translate differently in the countries included in the analysis, we have been able to assess the evolution of the SII market.

Indeed, the existing academic studies frequently use case-studies and success stories to describe the SII practices ongoing worldwide, but this narrative approach suffers of a limited interpretative potential (Daggers and Nicholls, 2016). The suggested that interpretative framework offers some analytical dimension along which analyzing the evolving practices associated with SII. It is based on four elements, namely, information asymmetry, financial instruments, source of capital and market intermediation. Within each of these aspects, it has classified the SII practices according to their degree of development: experimental (if the SIIs are sporadic and occasional) or systematic (if the SII has been institutionalized into the strategy of market actors). A representation of the framework is provided in Table IV.

The findings of this study confirm that SII is still a small market niche, which arouses a significant level of interest, at least at an intellectual and theoretical level. Considering the different configurations of the SII market that the theme identifies, the framework pinpoints two intensities characterizing the development of SII market. Specifically, there is a small group of *roadrunner* countries. Here, the market has overcome the experimental dimension and moved toward a more systemic approach. Although, information asymmetry together with illiquidity of investments still struggle SII, multiple sources of capitals are committed to the practice: both privates and governments channel capitals toward SII. Furthermore, several SIIs have been financed by Governments, which has played a key role in setting SII funds and in providing catalytic resources. Consequently, thanks to the double commitment of public and private sector, the amount of capitals channeled in the market is higher. Lastly, both market regulation and private intermediation have set the bases to build a solid market infrastructure. Indeed, in this group of roadrunners countries, there is an organic legal framework that favors SII and investment banks; intermediaries specialize in SII and set SII funds.

The vast majority of the analyzed cases, instead, have been classified as *chasers*. In these countries, SII are mainly low-risky experimentations, infrequently done by public or the private investors, and the bases for the regulative and transactional infrastructures have to be posed. Therefore, within this second group, the practices are still at an experimental dimension, to prove SII feasibility and functioning: the approach is that of setting small and low-risky pilots to test instruments, logics and methods. However, in some countries, the

Analytical elements	Experimental	Established
Information	- Lack of social impact measurements standards; and	
asymmetry	- bottom-up development of tools and metrics	
Financial instruments	- Philanthropic imprint; and - deb-like instruments	
Source of capital	 Lack of institutional investors and HNWI capital; Lack of engagement of retail market; and public sector engagement through small and low- risky prototypes 	- big established foundations; and - strategic public funding
Market intermediation	 Lack of public endorsement; and commercial banks with affordable products 	 organic legal framework; and specialized intermediaries and investment banks

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Table IV. Interpretative framework public sector skeptically steps in and the initiative is left mainly to private organizations. In the few other cases, where public commitment is present, it is still low compared to the first group, and also private investors sporadically offer services and products to social enterprises. In these countries, the regulation is vacant and intermediation mainly consists in affordable and custom-tailored products offered by commercial banks to their social business clients.

Lastly, our results show that both groups share the problems related to the accounting tools and, thus, the absence of track records characterizes the entire market. In the same way, a general caution prevails worldwide, because of the illiquidity of SII and the most diffused instruments are debt or philanthropic based.

These results are obtained through a thematic analysis. Sometimes, the thematic analysis is criticized for the subjectivity of interpretations and lack of rigor. However, we adopted some precautions to be rigorous: we organized the documents in a classification matrix, coded them separately, discussed divergences and discrepancies and triangulated different types of documents. However, all the documents were authored by G8 SII Taskforce and its NABs. This could appear as a bias in data, for the focus and aim of the WGs, but it is worth to be specified that the roundtables were attended by hundreds of experts, which brought to the table a variety of perspectives, practices and geographies, so that they represent a rich and variegate picture of SII worldwide.

Our interpretative framework has implications for academics and practitioners. Practically, the four elements helped us to sort the degree of advancement of SII practices in several countries. They drew a picture about the state of the art about SII in the different nations under the lens and identified a small group of roadrunner countries versus a larger group of chasers. Moreover, the merit of this paper is to identify the factors that played a crucial role in the roadrunner countries, posing the basis for further investigations about if and how these factors evolve overtime, how their influence on SII evolution can change and their impact on economic values and volumes of SII transactions. The proposed framework is also a supportive instrument to examine the SII diffusion outside the 12 countries under the lens, because it identifies the fundamental discriminant elements to be taken into the analysis.

From an academic point of view, this paper answers to the call of Daggers and Nicholls (2016) for segmentation of the field and identifies four elements that could be useful to classify the different SII practices worldwide. The findings of the present work contribute to overcome the storytelling approach characterizing the SII field and the absence of comparable and consistent data at global level by filling the academic literature about SII. through a structured interpretative framework. In addition, the results not only highlight the role played by the public sector, in terms of the effectiveness of public incentives, impact of SII public policies and self-sustainability of SII, but also open the road to further investigate how the policy vacuum is used in the chaser countries, where the public sector still looks at the SII practices from a distance. Moreover, the case-study approach could further test the validity of the framework and identify additional elements, which are relevant when assessing the development of SII practices in different institutional contexts. Indeed, the role played by cultural factors, socio-economic development, value systems, history and path dependency are other factors that could potentially affect the evolution of the SII marketplace. Finally, it prepares the ground to investigate how private and public source of capital, regulation and market intermediation, are connected to the market performances and whether the absence of these enablers hampers the development of the SII market or not.

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Corresponding author

Veronica Chiodo can be contacted at: veronica.chiodo@polimi.it

Appendix			Social impact
Codes	Significant arguments	Themes	race
Government infrastructure	Regulation of social enterprises' legal forms Laws to create wholesalers government's lack of support	Market regulation Public financing	
	Pension funds' fiduciary duties Regulation of unclaimed asset		81
	Feasibility studies		
	Establishment of departments for technical assistance		
	Public guarantees funds		
	Co-investments		
	SIB launched/under evaluation		
	Use of social criteria in procurement		
	Networks/hubs		
	Matching and leveraging role		
Facilitative	Problem of market size's estimation	Information	
lillasti ucture	SII market in evolution	asymmetry	
	Absence of track records		
	Methodological approaches to measurements		
	Third-party certification entity		
	Savings' calculation		
	Development of costs' databases		
	Diffusion of systems and standards High transaction/measurement costs		
	Lack and need of comparison across investments		
Transactional	Investments by established foundations	Private capital	
infrastructure	SII investments by banks	Private	
	SII investments by corporations Birth of new experimental funds	Financial	
	Disconnection of SII market	instruments	
	Participation extension		
	Absence of specialized intermediaries		
	Market in the early-stage		
	Emergence of first Social Stock Exchanges		
	SII instruments for retail mass		
	Loans offer by banks		
	Loans offers by funds and foundations Proliferation of bonds-like instruments		Table AI.
	Funds equity investments		Thematic analysis
	Diffusion of social shares		process

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Corresponding Author: Miss Veronica Chiodo,

Corresponding Author's Institution: Politecnico di Milano

First Author: Veronica Chiodo

Order of Authors: Veronica Chiodo; Irene Bengo, Ph.D.; Alice Borrello, M.Sc.

Abstract: Recently, scholars have described the strategy of the ecosystem as the set of efforts to align the different members; however, the blended value approach adds a new variable that might open different perspectives. The study investigates the strategic alignment of an emerging industry labeled as Social Impact Investing (SII), in which investors and investees aim to generate social impact alongside financial return. To this aim, the challenges hampering the development of SII are interpreted from an ecosystem perspective and verified through the analysis of data from both the supply side and demand side of the case of SII in Italy. Results reveal that Italian social impact investors have run across several paths of potential solutions. The paper contributes to the literature by grounding the research on SII and ecosystem empirically and applying the concept of ecosystem in an unexplored area of business.

Suggested Reviewers: James E. Austin jaustin@hbs.edu

Jo Barraket jbarraket@swin.edu.au

Opposed Reviewers:

Assembling the puzzle of Social Impact Investing: an analysis of the Italian ecosystem and its

potential for development

Irene Bengo^a, Alice Borrello^b, Veronica Chiodo^c(*)

^a Department of Management, Economics and Industrial Engineering Politecnico di Milano Via Lambruschini 4/b, 20156, Milano, Italy irene.bengo@polimi.it

^b Department of Management, Economics and Industrial Engineering Politecnico di Milano Via Lambruschini 4/b, 20156, Milano, Italy <u>alice.borrello@polimi.it</u>

^c (*) Corresponding author Department of Management, Economics and Industrial Engineering Politecnico di Milano Via Lambruschini 4/b, 20156, Milano, Italy 0039 0223994751 <u>veronica.chiodo@polimi.it</u>

Assembling the puzzle of Social Impact Investing: an analysis of the Italian ecosystem and its potential for development

Abstract

Recently, scholars have described the strategy of the ecosystem as the set of efforts to align the different members; however, the blended value approach adds a new variable that might open different perspectives. The study investigates the strategic alignment of an emerging industry labeled as Social Impact Investing (SII), in which investors and investees aim to generate social impact alongside financial return. To this aim, the challenges hampering the development of SII are interpreted from an ecosystem perspective and verified through the analysis of data from both the supply side and demand side of the case of SII in Italy. Results reveal that Italian social impact investors have run across several paths of potential solutions. The paper contributes to the literature by grounding the research on SII and ecosystem empirically and applying the concept of ecosystem in an unexplored area of business.

Keywords: social impact investing; social enterprises; ecosystem; alignment strategy; blended value

1. Introduction

This paper investigates the strategic alignment of the players active in an emerging industry labeled as Social Impact Investing (SII), in which investors and investees aim to generate social impact alongside financial return. Recent developments in the ecosystem literature (Adner, 2017) define the ecosystems' strategy as the joint effort of all the players in reaching a satisfactory alignment configured to ensuring the survival of the ecosystem.

The business sector is encompassing a slow but potentially disruptive transformation (Schmitz & Glänzel, 2016). Corporate social responsibility (CSR) has become a strategic leverage for big companies (Hart & Zingales, 2017; Emerson, 2003) and data from leading European countries (Stephan, Braidford, Folmer, Hart, Lomax, 2017; European Commission, 2016) reveal more than 700.000 legally recognized social ventures (Dwivedi & Weerawardena, 2018; Margiono, Zolin, & Chang, 2017). Social ventures are enterprises created to achieve a social purpose through commercial activities that allow them to be economically sustainable (Muñoz & Kimmitt, 2018; Saebi, Foss, & Linder, 2018).

Like any other business idea that aims to survive in the long run, social ventures need the infusion of external capital to be triggered and developed (Geobey, Westley, & Weber, 2012; Martin, 2015; Spieth, Schneider, Clauß, & Eichenberg, 2018; Tekula, & Shah, 2016). However, scholars widely acknowledge (Arena, Bengo, Calderini, & Chiodo, 2018) that social ventures have more difficulty accessing to external capital because their hybrid nature, blending market and social logic, is not familiar to the commercial financiers (Fedele & Miniaci, 2010; Moore, Westley, & Nicholls, 2012). This transformation is affecting the financial sector as well (Rangan, Appleby, & Moon, 2012). The combination of weaker financial institutions following the financial crisis, disruptive disintermediation-enabling technology, and underlying socio-economic as well as cultural shifts is challenging the paradigm of how financing is provisioned. New values, beyond profit maximization, are driving individuals' financial decisions (Roundy, Holzhauer, & Dai, 2017;

Weber, 2016). In 2007, the Rockefeller Foundation coined the term Social Impact Investments (SII), to refer to a strategy of asset allocation that intentionally finances projects that combine a measurable social and environmental impact along with economic sustainability (Höchstädter & Scheck, 2015; Weber, 2016). Social Impact Investing is set apart from mainstream finance by including social value, alongside risk and financial return, in the production function of the investors (Nicholls & Tomkinson, 2015; Scognamiglio, Rizzello, & Chiappini, 2017). SII diverges from philanthropy, however, because the investors expect a financial return, or at least the recovery of capital, in addition to the social value (Nicholls & Emerson, 2015).

Social impact investors might represent a solution for those social ventures that need to access mainstream capital markets to launch or scale their businesses (Mendell & Barbosa, 2013; Steinberg, 2015). However, SII is an emerging phenomenon, still very dynamic with many new entrants (Höchstädter, & Scheck, 2015; Oleksiak, Nicholls & Emerson, 2015; Rizzi, Pellegrini, & Battaglia, 2018). Moreover, SII shows original features that make it more complicated and resource-consuming than the traditional financial approach, as detailed in the section about the theoretical background of the research.

Although the potential of SII on paper is widely advocated, the effectiveness of this approach has to be proven yet (Lyons & Kickul, 2013; Martin, 2016). There is therefore a need to further explore how SII functions (Calderini, Chiodo, & Michelucci, 2018; Carè & Wendt, 2018; Rizzello, Migliazza, Carè & Trotta, 2016). Moreover, the research on SII to date has been dominated by practitioners; the few academic studies - 57 journal articles published between 2005 and 2017 (Agrawal & Hockerts, 2019) - are mainly descriptive (Daggers & Nicholls, 2016). The current research is, thus, driven by the following research question: *which is the alignment strategy of an ecosystem driven by the shared goal of generating social value, like SII?* To this aim, we developed a theoretical framework scanning the literature about social impact investing through an ecosystem lens, specifically building on the perspective introduced by Adner, who defined the strategy of the ecosystem as the efforts to find the proper alignment structure. The

framework outlines the challenges, which, according to the scholars, are currently hindering the alignment of SII industry. Then, we use the empirical analysis of the Italian SII market to verify the different challenges of the framework and identify potential solution practices.

This study contributes to the limited academic literature on SII by underlining the success factors to be addressed to advance the development of SII. Furthermore, using the SII industry as a case, the paper introduces a new variable in the reasoning on ecosystems.

The rest of the paper proceeds as follows. In the next section, the results of the literature review on SII are reported to underline the main issues hampering SII's development. Then, we introduce the case and the methodology implemented to collect and analyze the data. In the fourth and fifth section, we present the results of the coding analysis applied to the supply side data and we discuss these results in light of the quantitative evidence on the demand side and the challenges identified in the literature. Lastly, we conclude highlighting the limitations of the study and the avenues for future research.

2. Theoretical Background

In this section, we reviewed the existing literature on SII, which highlights the obstacles hampering the development of the industry. Then, we organized the examination according to the ecosystems literature and built the analytical framework, summarized in Table 1, which drives the collection and analysis of data.

We deemed the ecosystem concept fruitful for investigating the phenomenon of SII for different reasons. First, scholars have used this perspective to capture new phenomena that have not been fully explained by previous theories (Hsieh, Lin, Lu, & Rong, 2017). Second, an ecosystem perspective allows us to focus on a network of actors as members of a system, which is not hierarchically managed, but instead is held together by a clear shared vision of value creation (Adner, 2006; Anggraeni, Hartigh, & Zegveld, 2007; Jacobides, Cennamo, & Gawer, 2018). Therefore, compared to many models of market alignment, the ecosystem as a theoretical lens is at the same time coherent with the goal of the work and structured enough to provide the building blocks of the analysis.

2.1 Ecosystem perspective

The first definition developed by Moore (1993) sees the ecosystem as a community of actors that are somehow interconnected and studies how these actors interact with each other to generate a certain value proposition. Subsequently, Adner introduced some novelties (2006), emphasizing on the strategy of the ecosystem. Adner (2017) suggests a shift from the idea of "ecosystem as a filiation" to "ecosystem as a structure". This perspective reverses the previous approach by shifting the focus from the members to the value proposition and interpreting ecosystems as "configurations of activity defined by a value proposition" (2017, p. 40).

Moreover, a core element of Adner's novel definition is the idea of alignment structure, which is, in turn, the ultimate objective of the ecosystem strategy. He defined an ecosystem as "the alignment structure of the multilateral set of partners that need to interact in order for a focal value proposition to materialize" (2017, p. 42).

According to this new view, the strategy of an ecosystem is the way the members try to find the proper alignment structure in which where all partners are satisfied with their roles and flows of activities. Therefore, alignment can be defined as "the extent to which there is mutual agreement among the members regarding [...] positions and flows" (Adner, 2017, p. 42). However, the question of which factors enable (or inhibit) the alignment via an ecosystem and the mechanisms of coordination and collaboration of the ecosystem is still under-investigated (Jacobides, Cennamo, & Gawer, 2018). Adner & Kapoor (2010) claimed that there should be alignment among the actors in the ecosystem to have a successful value creation process. In this respect, Rong, Lin, Li, Burström, Butel & Yu (2018) stress the importance of further examining the ecosystem dynamics to "understand how to develop and share the ecosystem vision with other ecosystem".

To this aim, building on the seminal works by Moore, Iansiti and Levien and the more recent perspective provided by Adner, we developed a framework combining the elements that the scholars pinpoint as pertaining to an ecosystem with the challenges of the SII industry acknowledged by scholars (Table 1) and we use that framework to analyze the case of Italian SII ecosystem.

The building blocks of the framework are: (a) the *firm*, meaning *the members of the ecosystem and whether they play the role of keystone or niche players* (Iansiti, 2002; Iansiti & Levien, 2004); (b) then, as for the *network* (Adner & Kapoor, 2010), for which we consider the processes of *value creation* and *value share* in the ecosystem; (c) *governance*, or as the mechanism to manage and support the network's co-evolutionary processes; the *performance*, meaning the social and economic value generated and the ways to assess these metrics.

Concerning the network, a crucial element is the nature of the relationships between the actors. The ecosystem concept pivots on the interconnection between the members, who regularly share the value through the exchange of knowledge and resources. In other words, they undertake a co-evolutionary process, and the pattern of relationships creates the structure of the network. These relationships might be cooperative as well as competitive (Moore, 1996; Mäkinen & Dedehayir, 2012; Nuseibah & Wolff, 2015).

Another aspect of the ecosystem structure is the governance (Anggraeni et al., 2007; Suominen, Seppänen, & Dedehayir, 2019), which, however, has not been adequately addressed by the ecosystem literature. The governance of an ecosystem should provide enough incentives to the members to pursue the shared goal, without being prescriptive about how they can reach that goal. The last block of the framework consists of specific constructs and metrics to measure the "health" of the ecosystem (Iansiti & Levien, 2004; Peltoniemi & Vuori, 2004). On the other hand, creating new niches means opening up new opportunities for niche players to implement their innovations.

2.2 Challenges to SII development

SII is an emerging phenomenon (Rizzi et al., 2018; Oleksiak et al., 2015), which is still experimenting in terms of practices in an effort to realize its full potential. Indeed, scholars pinpoint many outstanding issues related to how SII functions. Following Grace, Thornley, Wood & Sullivant (2011), we list the obstacles first from the supply side and then from demand side perspective.

2.2.1 Supply side¹

Different kinds of financiers carry out SII. On the one hand, many foundations and public authorities, actors that traditionally have supported social initiatives, have shifted their approach toward SII given declines in donations and the need to preserve the capital (Oleksiak, et al., 2015). On the other hand, commercial financial institutions, from banks to VC funds and institutional investors, have turned to SII as they view the welfare sector as a new investment opportunity (Mendell & Barbosa, 2013; Ormiston, Charlton, Donald, & Seymour, 2015). However, the potential of SII as advocated on paper is still far from reaching the desired goal (Brest & Born, 2013; Clarkin & Cangioni, 2015; Rangan et al., 2012).

In the existing literature, we found four main structural issues, which are hindering the ability of investors to deploy their capital: *lack of knowledge and expertise, misalignment between requirements of impact investing approach and expectations of mainstream investors, and lack of appropriately design investment opportunities.*

Different scholars (Bengo, Arena, Azzone, & Calderini, 2016; Glänzel & Scheuerle, 2016; Ormiston et al., 2015) underline a limited number of experts and knowledgeable investors able to deal with designing, implementing, and managing impact investing strategies. The second issue refers to how the need for long-term commitment and higher resource spending that is typical of social impact investing deals may not fit either the investment horizon or investment approach of institutional investors (Antadze & Westley, 2012; Clarkin & Cangioni, 2015). Furthermore,

¹ In our study, we decided to include both providers and managers of capital in the same group of the supply of capital and labeled as social impact investors. The suppliers, those who provide the capital, are high net worth individuals/families, corporations, governments, retail customers, and foundations. The intermediaries are asset managers who deploy capital, including: fund managers, family offices, banks, venture capital and private equity funds, pension funds, sovereign wealth funds, development finance institutions and governments (Hazenberg, Seddon, & Denny, 2015; Lehner & Nicholls, 2014; Nicholls & Emerson, 2015; Ormiston, Charlton, Donald, & Seymour, 2015).

investors complain about a lack of attractive existing investment opportunities due to a low level of attractiveness of existing projects with social aims (Donald, Ormiston, & Charlton, 2014; Martin, 2016). According to investors, social ventures usually show an inadequate investment readiness for several reasons (Hazenberg, Seddon, & Denny, 2015; Mendell & Barbosa, 2013): weak operational capabilities, poorly defined business models and business plans, lack of familiarity with how to raise capital, and lack of robust governance structures and skilled management teams.

The absence of infrastructure, high transaction cost and lack of liquidity are barriers that are hindering the functioning of the network in the SII market. Large institutional investors substantially remain at the margins due to a lack of various forms of infrastructures in terms of intermediaries' brokerage (Moore, Westley, & Brodhead, 2012), enabling regulatory frameworks (e.g. fiduciary duties) (Wood, Thornley, & Grace, 2013), financial products (asset classes and instruments), tools for managing a portfolio of impact investment (Kroeger & Weber, 2014), communities for knowledge and information sharing, and standards in measuring and reporting social impact. The higher transaction costs, compared to traditional investments, are related to the smaller ticket size, the lack of tools to assess social performance, the lack of proper classification and taxonomy between investors and investees regarding investment-capital funded (Glänzel & Scheuerle, 2016; Goldman & Booker, 2015). Finally, different studies (Brandstetter & Lehner, 2016; Mendell & Barbosa, 2013) acknowledge a lack of liquidity caused by an absence of a unified market or exchange platform and a lack of exit strategies from the market for the investors. The usual concerns in terms of governance - information asymmetry, moral hazard and mission drift - becomes even more complicated in the context of SII (Arena et al., 2018). Indeed, the lack of track records, reliable data about social services and costs and standard methods

to measure social impact (Lazzarini, 2018) make it hard to assess the social performance of the investees, before and after the investment, and, thus, increase the common level of information asymmetries in the financial relationship (Achleitner, Wolfgang, & Sarah, 2014; Cornée & Szafarz, 2013; Evans, 2013). Therefore, the investors should rely on trust and shared values as substitutes

for formal control to avoid opportunistic behaviors (Nicholls, Nicholls & Paton, 2015). The issue of information asymmetry leads to the threat of moral hazard. In this respect, social ventures, whose primary goal is generating social benefits, might focus exclusively on the delivery of the social services, disregarding the commercial part and, in turn, not being able to pay back the financial return to investors (Bugg-Levine et al., 2012; Glänzel & Scheuerle, 2016; Seddon, Hazenberg, & Denny, 2013). Lastly, the problem of mission drift affects both the investor and investee. The investor expect to have a certain degree of control and decision-making power in the organization while the social entrepreneur wants to be independent to protect her mission from drifting away due to the profit maximization expectations of the investor (Achleitner, Lutz, Mayer, & Spiess-Knafl, 2013; Cetindamar & Ozkazanc-Pan, 2017).

The assessment of the performance of SII should also include the estimation of the social return and social risk of the investment, alongside the financial ones. The previously mentioned lack of established methodologies to measure social impact (Harji & Jackson, 2018) has to date jeopardized the development of a way to include the social return and risk in the decision making instruments of investors (Brandstetter & Lehner, 2016; Miller & Wesley, 2010; Serrano-Cinca & Gutiérrez-Nieto, 2013). Furthermore, the aim of addressing a social problem often leads social impact organizations to operate in sectors with higher chances of failure, raising the perception of risk to potential investors. This makes the appraisal of the risk-return profile of SII investments unreliable because the higher perceived risk cannot be balanced by a fair assessment of the corresponding total, social plus financial, return of the investee (Martin, 2015; Nicholls & Emerson, 2015). The bias about the actual total risk and return of SII investments discourages new players from entering the market (Ormiston et al., 2015; Viviani & Maurel, 2018).

2.2.2 Demand side

The demand-side consists of all those organizations, with different organizational and legal arrangements, which aim at the achievement of a social mission through commercial activities,

They, therefore, strive to be economically sustainable while targeting beneficiaries with specific social needs (Ebrahim, Battilana, & Mair, 2014; Lortie & Cox, 2018; Spieth et al., 2018). The existing literature (Arena et al., 2018; Chong & Kleeman, 2011; Doherty, Haugh, & Lyon, 2014) has significantly explored the difficulties that social ventures face in accessing funds in the form of repayable finance and the issue of grant-dependency. Also, much of this literature acknowledges the potential for social impact investors to overcome these challenges (Bhatt & Ahmad, 2017; Bugg-Levine et al., 2012; Lehner and Nicholls, 2014). The underlying assumption is that social ventures, given their blended value orientation, are the ideal target of social impact investors, which, in turn, are well equipped to meet their needs. On the other hand, the SII market is still far from proving its effectiveness. Indeed, scholars (Arena et al., 2018; Castellas, Ormiston, & Findlay, 2018; Lyon, 2016; Seddon et al., 2013) are starting to push ahead the debate focusing on those features in the approach of social impact investors which inhibit them from matching with the investment opportunities represented by social ventures.

In this sense, the review of the existing studies reveals three main problems: *eligibility criteria*, *the presence of tailored approaches, and dominant investment logic*.

Lyon & Baldock (2014) and Castellas et al. (2018) quantitatively demonstrated that a very small portion of social ventures successfully approached social impact investors. Following, Lyon (2016) links these data to the eligibility criteria used by social impact investors. He claims that they focus on repayable finance, but at the same time, to ensure a legal protection of the social mission, they target organizations that have an asset lock implied by the legal form (Bengo & Arena, 2019). The eligibility problem is not only related to the legal structure, but also to the organizational and operational features of social ventures. For example, in the research conducted by Lyon and Baldock (2014), the organizations approaching social investors were those with a turnover of over £1m; Lehner (2013) underlines that social impact investors are actively targeting industries with inherent social benefits, such as environmental technologies or microfinance. Whether any corporation that defines its mission in social or environmental terms might be suitable for social impact investments is an intriguing open question (Bhatt & Ahmad, 2017).

Additionally, scholars (Arena et al., 2018; Lyon, 2016; Seddon et al., 2013) challenge the actual use of a tailored approach by social impact investors. They report a lack of instruments (Barraket, Mason & Blain, 2016; Lyon, 2016) able to combine repayable finance and grants and early-stage capital and patient capital. Moreover, it is acknowledged that those entrepreneurs starting organizations with a social aim typically shows a social background and thus they seldom have strong managerial and financial skills (Achleitner et al., 2014; Al Taji & Bengo, 2018; Lyons & Kickul, 2013). On the other hand, they strongly value the relationships with the financiers and their ethics (Lyon, 2016).

The third problem, which Castellas et al. (2018) found in their analysis of the Australian market for social impact investing, is that social impact investors very often employ logics upheld by the mainstream investment approach. This therefore leads to the predominance of financial metrics over social impact metrics during the assessment process. Due to the lack of reliable methods to measure and report social impact, the methodologies that investors employ in their social impact analysis are far less rigorous than the financial ones (Seddon et al., 2013). Indeed, the social entrepreneurs, even in dealing with social impact investors, still perceives that their financiers' primary interest is profit maximization and they worry that the investor's influence might lead them astray from their original social mission (Fraser, 2007; Douglas & Prentice, 2019).

[Please insert Table 1 near here]

3. Research Design

The aim of this work is to expand the knowledge of the issues that might hinder the alignment between the offering of social impact investors and the demand from social ventures. To explore the research question, we analyze the SII industry in Italy using the theoretical lens of the ecosystem. The nature of the topic led us to choose a mixed methodology and focus on the single case of the Italy. SII is a complex and contemporary phenomenon explored in a real-life

context with limited amount of empirical evidence collected by academic scholars (Khairul, 2008). The choice to concentrate on one national context is related to the nature of social entrepreneurship, which is highly context-dependent (Defourny & Nyssens, 2017). The use of two different methods of data collection and analysis - quantitative for the demand side and qualitative for the supply side - is supported by two reasons: first, the need to include both players already engaged in SII and those potential entrants; and second, the different size of the two populations. On one hand, the population of social impact investors in Italy is still small to allow the use of a quantitative approach; on the other hand, the need to include all potentially investible social ventures generates a considerable population not manageable with a qualitative approach.

Both data collections, however, build on the framework of analysis (Table 1) because the challenges identified drove the development of the interview protocol and of the survey. In Table 2, we summarize how the different challenges have been translated in the data collection tools.

[Please insert Table 2 near here]

3.1 Presentation of the case

The reasons backing the selection of Italian case are several. First, as emerged in the most recent literature reviews on SII (Agrawal & Hockerts, 2019; Michelucci, 2017; Rizzello, et al., 2016), the study of the Italian context has a lack of adequate discussion, and the majority of the research focuses on US and UK context. Furthermore, since 2013 when the Italian NAB of the G8 Social Impact Investing Taskforce was established, the interest in that field and the number of actors involved have increased a great deal, though Italy still lags behind the hallmark of UK and US market.

There follow some descriptive information about social ventures, and social impact investors in Italy which we have elaborated from primary data.

Social economy in Italy has deep roots: in 1950 it was issued a law which acknowledges a broader social role for cooperatives. Therefore, the demand side consists of a breed of private entities with significant experience in providing social services. The profile of Italian social ventures in terms of

economic sustainability is, instead, undergoing an evolution: Italy is one of the few countries worldwide to have released a specific piece of law (Legislative Decree 112/2017) that disciplines social ventures, also including elements able to boost their economic sustainability. Indeed, any form of private organization, whether for profit or otherwise, may be a social venture under Italian law; besides, unlike non-profit organizations, these social ventures are allowed to distribute a capped level of profits to shareholders and get equity investments. We believe that this law might trigger a transformation in the structure of Italian social economy towards a more entrepreneurial and capital-intensive model. A virtuous circle could emerge: once social ventures are allowed by the law to raise external capital, they can then plan investment to grow and refine their business models to achieve more impact, and they will start looking for further capital from financiers. In that sense, SII might represent a new funding opportunity.

The core of Italian social impact investing is composed of 46 financial entities which show public evidence of a commitment to finance socially-oriented organizations. Among these actors, we can find banks, insurance agencies, family offices, foundations, SGR, and venture capital. 15% of investors have a local focus in terms of target investees, while 72% of them invests at the national level and 23% at international level. Their investments are made in different sectors such as microfinance, environment, healthcare, agriculture, cultural heritage, social housing, and social care. They mostly supply financial resources to social impact organizations that are in the start-up and growth phase, followed by those that target maturity. The supply-side is composed of some actors with a track record in financing social services that want to evolve their approach, new entities born as specialized social impact investors, and players coming moving from the commercial sector that consider SII a new investment opportunity.

3.2 Qualitative method

To investigate the supply side, we adopted a qualitative methodology using the approach of thematic analysis.

The sample has been created to provide the most accurate and representative picture of the available capital invested or investable in social ventures in Italy. First, we performed a desk analysis, reviewing and organizing in a database all of the press releases issued by Italian media about social impact investing. This first step resulted in the identification of 63 stakeholders. Afterward, each press release was triangulated with the stakeholders' websites and official documents publicly available. At the end of the screening process, a total of 46 organizations were recognized as social impact investors in the Italian market.

Data collection was performed between January and April 2018 using semi-structured interviews triangulated with public documentation available online or directly provided by the organization. This approach was considered appropriate because the lack of existing consolidated theories on SII makes the formulation of hypothesis impossible (Yin, 2009); on the other hand, the protocol was useful in increasing the reliability of the research and guiding the data collection.

The targeted stakeholders were, first, informed about the purpose of the research and questions of the interviews to scout the willingness of the organization to take part in the project. At the end of this introduction, 30, out of 46, organizations agreed to take part in the research. The sample is composed of two insurance companies, seven banks, two family offices, five foundations, 13 SGR/venture capital, and one public financial institution (Table 3).

[Please insert Table 3 near here]

Consistent with the framework in Table 1, we developed a flexible protocol to support the researcher in conducting the interviews. Indeed, we first designed a list of questions (Table 2) covering the following topics: the approach used by the investors in terms of AUM, instruments, asset class and characteristics of the target investees; how they perform the scouting and due diligence, both social and economic, of the potential investees (pre-investment phase); how they monitor the social and financial performance of their investment and how they measure the social impact (post-investment phase).

Each interview lasted from 30 to 80 min. Interviews were conducted either both face-to-face or via Skype/phone. When allowed, the interviews were recorded and subsequently transcribed; when it was not possible to record, "real-time" notes were taken and subsequently enriched after the discussion.

Data have been analyzed using a thematic analysis approach in order to identify the main trends related to the factors that hamper the alignment of SII Italian market. The thematic analysis is the structuring and interpretation of collected data in major concepts, by the identification of prominent or recurrent themes (Attride-Stirling, 2001). A theme represents a pattern or meaning within data, which captures something important concerning the overall research question (Braun and Clarke, 2006; Dixon-Woods, Agarwal, Jones, Young, and Sutton, 2005).

Building on that, we use a deductive approach in coding, deriving the categories from the theoretical framework introduced in the previous section (Marshall and Rossman, 1999). Categories are a group of content related to the same investigation theme, that must be mutually exclusive for avoiding overlapping in the analysis of the text. Categories are informed by the identification of "in vivo codes": codes are the wording that participants use in the interview (Glaser & Strauss, 1967). Thanks to the coding process, it is possible to assign a label to concepts that emerge within the text. The process of coding was performed through NVivo software, and it was implemented separately by three researchers, after having jointly discussed the categories. Lastly, the findings, shown in Table 4, were validated through a shared discussion between researchers and experts.

3.3 Quantitative method

To study the demand side, we collected the data through a survey. The target population includes all the Italian legally recognized social enterprises, i.e., 9204 organizations (AIDA database accessed May 2017; Register of the Chamber of Commerce accessed May 2017). They have been identified as those registered according to three different laws: Law 381/1991 that regulates the legal form of social cooperatives; Legislative Decree 155/2006 that disciplines the label of "ex lege social enterprises"; and Legislative Decree 179/2002 that establishes the label of "start-up innovative a

vocazione sociale" (SIAVs). The list of social cooperatives has been extracted from the AIDA database and the list of social enterprises and SIAVs from the registers of the Chamber of Commerce. Given the heterogeneity of the population, we applied a stratified random sampling to identify a sample of 3682 organizations. Specifically, we used three variables to set the strata: legal status (social cooperative, ex-lege social enterprises, and SIAV); location (North, Centre or South); and size (measured by terms of the number of employees).

Then, building on the challenges that, according the scholars, social ventures experience in dealing with social impact investors (Table 1), we developed a questionnaire composed of eight sections. It accounts for a total of 48 questions, addressing the topics detailed in Table 2. The questionnaire has been sent to e-mail addresses publicly available on the website of the organizations. In the cover letter, it is clearly stated that the research targets the founder/s or managers of the enterprise. The survey has been administered online by using the software SurveyMonkey from mid-May to the mid of October 2017 and five reminders through e-mail were sent during this period. From the beginning of July 2017, a follow up by phone has targeted all of the organizations that had not answered to the survey.

We collected 456 questionnaires (about 12% response rate). Therefore, given a confidence level of 95%, we reached an acceptable margin error of about - 1.25/+1.25.

Lastly, the purpose of the research suggests an explorative analysis of the data through descriptive statistics.

4. Results

In this section, we analyze how the core elements identified by ecosystem's scholars – members, network, governance and performance – translate in the Italian SII market. Additionally, we try to correlate the main topics that emerged from the coding analysis of data about the supply side (summarized in Table 3) in view of the results of the descriptive statistics performed on the data collected on the demand side.

4.1 The members of the ecosystem and their role

Social impact investors' intentionality is an expression of the moral and ethical behaviors of people within the organizations that want to align the investment approach with their values, beyond financial performance. They engaged in these activities "*not because it is meant to increase the amount of funds raised, but because they take responsibility for future long-term well-being*" (Bank2). The willingness of the investors is to increase the *"financial resources available for social projects*" (Foundation1). A benefit of using this approach might be "*to foster the level of transparency in the financial market, and this, in turn, might also ease the fundraising activity for management firms*" (VC3). Indeed, SII is not seen as a way to collect more money or improve financial performances, but rather as the evolution of the business models towards a new and more sustainable approach to investments.

From the interviews, it is clear that no organization is playing the role of the orchestrator of the SII industry yet. Indeed, all of the impact investors and social ventures might be considered niche players; investors are, indeed, still defining their role because they are trying to identify new financial instruments and investment approaches to reach the investment opportunities. However, many VCs complain about the lack of specific competencies and scalable business models to be replicated. For example, VC1 states the need to *"realize prototypes of business models that can be replicated to increase the scale"*.

As for the first concern raised by investors, we investigated the managerial skills and previous experiences of the founders of social ventures. The social sector profile is undoubtedly more common than the business sector profile. Indeed, on average, 11% of the founders had a managerial position in a for-profit company (with more than ten employees), and 23% had an experience of self-employment in a for-profit company; versus 19% and 31% in a not for profit organization. Furthermore, only 6% owns a degree in business related subjects. They have on average seven years of previous experience, with either commercial or social aims, in the same sector where the social venture operates.

On the other side, the need to combine social value and commercial value is mentioned by 45% of them as the motivation for starting the venture (hybrid motivation); 36%, instead, refers to an empathetic motivation related to the willingness to solve that specific social problem.

The structure of their business models reflects this: 82% of organizations point out the selling of product and services as the first source of revenues. The main client, however, is still the public sector (43% of cases), followed by individual customers (30%) and other private or not for profit organizations (12%).

The level of technological intensity of the organizations interviewed appears low in the 73% of cases. The determinants are the low percentages of organizations that have either registered patents (3%), used IP purchased from other companies (3%) or earned revenues from being the licensee (5%). Lastly, more than half of the social ventures in the sample have a constraint on profits distribution implied by the legal form (40%) or other reasons (15%).

The second issue reported by the investors is the lack of scalable business models. Therefore, we checked whether and how Italian social ventures have grown in the last two years (data refers to 2015-2016). 42% of organizations have expanded their business at the national level, while only 3% at the international level. 65% of social ventures either had more beneficiaries of the same category they already served or started to serve a new category of beneficiaries; 63% of them was able to grow social impact and revenues from product and services and 54% social impact and profits. In terms of specific strategies social ventures use to scale, we see a clear prevalence of organic growth through increasing volumes, developing new products (used by 48% of organizations) and improving the efficiency of the existing practices (78%). Likely, informal and less strictly disciplined strategies such as advocacy (59%), engaging in partnerships (62%) and networks (51%) are quite spread. Instead, franchising, affiliation, and M&A are very rare. Only 14% of organizations have contractual agreements with other entities that replicate the model. On the other side, 24% acknowledge that other organizations use their model without any structured relation.

In conclusion, the organizations composing the demand of impact capital need the funding to grow their commercial activities, for example, to upgrade their technology intensity to enable a more significant potential to scale. On the other hand, they seem to lack managerial competencies and a solid organizational structure.

The investors' motivation for engaging in SII shows a misalignment between demand and supply. Indeed, the motivations for investing in social impact investing are: entering into the new markets, acquiring skills, and diversifying corporate social responsibility. On the contrary, the reasons for not investing are poor deal flow, the fragility of business models, and small tickets.

4.2 The network: how value is created

Besides the stated lack of investment opportunities, in 2017, about $67 \in ml$ has been invested in social ventures, of which 50 $\in ml$ as debt and only 17 in the form of equity.

We were able to identify two archetypes of business models that are equally present in the Italian SII industry. First, there is equity investment that might be directed in socially oriented organizations or specialized intermediaries; once the investment is directly in the enterprise, it always takes a position of minority shareholders. The other model is the loan that is provided at discounted rates to social ventures, adding a qualitative assessment of the social impact generated in the credit scoring process. In this sense, microfinance is still a highly diffuse approach. The investments mainly target organizations working in the welfare sector, nevertheless, sectors do not bound the choice of investors, provided that the organization generates social impact. Indeed, social impact investors do not declare operating in specific sectors as a mandatory selection criterion; however, we can notice from Table 2 that the environment is highly prevalent among their preferences. Players in the ecosystem are trying to innovate by creating new instruments like social bonds, social peer to peer lending platforms, and social leasing or by investing in the new sectors like the real estate. An entirely new approach that is spreading is the investment in the real estate in order to trigger a regeneration of the surrounding community.

In terms of target investees, Italian social ventures trying to address issues in the following sectors: health and social assistance (78%), labor inclusion (43%), education (28%), reoffending (12%) and environmental protection (6%).

The results of the survey, however, still show a high reliance of social ventures on grant funding: 80% of organizations mentioned grants as a source of funding and 10% report that grants are the most crucial source of funding. Only 2% of ventures, by contrast, have the loan as the first source of funding (one out of four mentioned a loan as one of their sources of external capital) and none had venture capital. Our results, therefore, support the idea that instruments of blended capital are still essential to finance social ventures (Castellas et al., 2018; Lyon, 2016).

Considering the issue of eligibility criteria mentioned by Lyon (2016), some social impact investors are directing their money towards for-profit organizations that are socially oriented instead of only to third sector organizations performing traditionally social services.

All investors always offer some support to the investee in terms of non-financial services. Nevertheless, only 24% of social ventures in the sample had received non-financial support from either public or private entities. Approaching social impact investors might be a new source of nonfinancial support for social ventures. For example, VC2 declared explicitly its aim to "*exploit the time of investments to support the organizations to develop a social impact measurement system that might be a permanent tool for them*".

Two interesting elements emerge involving the relationships within the networks. First, almost all investors do co-investments; they might be voluntary, meaning that they intentionally create a joint-program, or not intentional as many investors invest in one single entity. Some of the investors, for instance, both banks and foundations, have invested in the first microcredit Italian institution. Another example is Bank3, which "*created a collaboration with a guarantee fund issued by a foundation in order to cover the risks of the investment in social cooperatives*". They also created a partnership with a consortium of social cooperatives operating in the health-care sector to foster the development and spread of innovation and best practices and to ensure social cooperatives a

privileged channel in accessing to credit. Generally, investors also partners in the scouting phase; indeed, they rely on networks of social impact organizations, universities or specialized consultant. Few investors decided to perform the scouting internally. Many of the interviewees are also engaged in the activity of an advocacy organization which aims to promote the social impact investments market in Italy. Therefore, investors have proved to be willing to collaborate among themselves and to take a supportive approach towards their investees.

About 35% of social ventures find local/national public policies able to support their activities, and 43% find support from private entities. Unlike social ventures which seem to be quite satisfied with the policy context where they operate, social impact investors complain about a lack of infrastructure.

Bank1 stresses the importance of "collecting data about the organizations that might be shared with their stakeholders". Whereas, "the big challenge of SII ecosystem is to identify networks of organizations to avoid the replication of similar initiatives and create innovative forms of collaboration among socially oriented organizations" (Foundation3).

Investors, therefore, report difficulty in accessing information about social ventures to build their pipeline. In particular, there is a lack of track record, data and of standard methods to evaluate the social performance of organizations. However, more than half (65%) of social ventures surveyed claim to measure the social impact they generate. Half of them uses standard methods and metrics and only 11% involve a third party evaluator. Thus, it is complicated for social impact investors to assess the reliability of information provided by social ventures and to compare the performances of different organizations since each one uses a proprietary methodology.

4.3 Governance

The issue of governance emerged in relation to the way in which social objectives are defined before the investments. Indeed, the social impact is the primary driver for both investors and investee, and their social goals should be aligned. However, we found that in the majority of cases there is a top-down approach in the definition of social goals – they are defined by the investors after the due diligence phase and included in the contractual agreement. In some cases, the social goals are negotiated between the investors and the investee. In a few cases they are suggested by the investees. In Bank4, they *"include social objectives in the contractual agreement, but it is a*

discussion. There is not a top-down approach, and the entrepreneurs can propose their goals".

Considering the role of financiers in the creation of a social impact measurement infrastructure, we can mention that, when social ventures measure their social impact, only in the 40% of cases is this triggered by a request of the financier. Of that 40%, one out of four has a public contract as the first source of revenues. Whereas, considering measurement of social impact and the most relevant source of repayable finance used by social ventures, 70% of those getting funds in the form of loans measures their impact; however, only half of them should provide a measurement to financiers. Moving from the ex-ante to the ex-post investment phase, 10% of organizations have financiers or investors sitting in the board of directors.

The analysis reveals that social impact investors need data that they can rely on in the screening phase, after which they are also willing to support social ventures in developing the methodologies to generate the data about the social performance; while, the relationship becomes looser once they have received the funding because they are not actively involved in the management of the organizations.

4.4 Performance

The performance of the SII ecosystem is still difficult to assess, both in terms of social outcomes and financial results. From the analysis, it emerges that Italian impact investors are still very critical of the existing evaluation tools since they are considered too expensive and complicated to be computed. As a consequence, a vast majority of financiers is currently using ad-hoc measurement tools, composed of a few, mainly qualitative, indicators customized for each investment. We define the current approach as *transaction-based* because the method and metrics change from investor to investor and from deal to deal.

While the investors have claimed to score positive financial returns, these returns are rarely aligned with the market rate in the for-profit reference sector. Indeed, the perceived risk of this investment is much higher, and investors declare a shallow level of liquidity of the market. Just, one of the interviewees (VC9) has already exit from an investment. Moreover, the investors apply traditional portfolio allocation frameworks that are based on the assessment of financial risk and returns to make investment decisions. The only difference we detect is the use of a negative screening to include social risks in their decision making, namely they do not invest in some organizations because of high social and environmental riskiness.

However, interviewees underline the need to implement many actions in order to make the market stable and robust. First, it would be essential to increase the volume of transactions in the market including new players from both the supply side and the demand side. Second, the involvement of the public sector seems necessary as a steward to support the growth of the demand side and to implement incentives able to attract players in the market. Lastly, actors advocate for mechanisms to lower the risk of the investments, specifically, guarantee mechanisms or PPPs.

[Please insert Table 4 near here]

5. Discussion and Conclusions

In this section, we discuss the main takeaways of the empirical analysis considering the challenges identified by SII scholars and, then, we underline how the findings and limitations of our work open new paths of future research. The results of the data analysis suggest that the adoption of an ecosystem perspective is a fertile direction to understand the conditions of a complex sector as social innovation. In particular, we built on the Adner's suggestion to explore the development of the ecosystem as those efforts to achieve the alignment among the players. Coherently with its assumption and framework, we identified and classified the barriers to the growth of SII ecosystem and we used them as driving categories in the empirical analysis of the players of supply and demand in the Italian SII industry.

Despite started around 2014-2015 (with the debate started by the G8 Social Impact Investment Taskforce), SII industry in Italy is at an early stage of development, still dominated by unruliness, However, the analysis shows that the members of SII ecosystem, in their experimenting effort to find the practices able to ensure the market functioning, have run across several paths of potential solutions to the challenges hindering the development of the market (Table 5). Therefore, the findings might represent a list of guidelines for the players of SII ecosystem to support its healthy development.

The thematic analysis reveals four themes: *lack of strategic alignment, intangible infrastructure, need of a keystone, collaborative approach.* They represent the supplier perspectives on the SII Italian ecosystem. Below, we discuss them in light of the structure of the demand side. The comparison brings out some initiatives that might enhance the alignment in the ecosystem.

[Please insert Table 5 near here]

The first theme *lack of alignment* recalls the idea that, even though all the actors are engaged in the system of values underpinning the ecosystem, i.e., social impact, this is not enough to ensure strategic alignment. In other words, there is an alignment in terms of intents, but not in terms of practices (Barraket, Mason & Blain, 2016; Bengo et al., 2016; Castellas et al., 2018; Lyon, 2016; Nicholls, 2010; Seddon et al., 2013). Investors are not satisfied with the scale of the market, and the growth aspirations of the demand do not meet their needs. According to investors, here a critical role might be played by the use of technologies. Indeed, most of the Italian social ventures are micro and small enterprises and they exhibit a shallow level of technological intensity. The embeddedness of technological innovations in business models might foster the scalability of solutions proposed by social enterprises. For example, technology might help to build sub-ecosystem of several organizations delivering the same proven value propositions where social impact investors could invest, overcoming the issue of fragmentation and small ticket size. In addition, in Italy, there are tax incentives for those investors who supported a special type of social

ventures, which deploy technology-driven solutions to address social needs. However, those social tech ventures are about 1% of all social ventures in Italy.

The second factor of misalignment lies in the eligibility criteria used by investors, confirming the challenge identified by international scholars. In this respect, Italy might become a hallmark. Indeed, the recently issued piece of law, which disciplines social ventures, offers a guarantee to the investors in terms of mission lock, but it also enlarges the pool of demand by including any organization regardless having a not for profit or for profit legal form.

The second theme, *intangible infrastructure*, refers to the kind of common assets requires by SII ecosystem. We can draw from the analysis that the ecosystem is not lacking the tangible asset, i.e., the capital, but the intangible ones. Investors do find valuable business models, able to conceive social value, but the organizations proposing them do not show sufficiently reliable track records and a good level of managerial capabilities. The vast majority of investors recognizes social impact measurement as a critical factor in defining social impact investment and an essential tool to be developed in order to sustain market growth. At least in this market building stage, investors should deploy part of their funding to create new investment opportunities by supporting capacity-building activities in the ecosystem.

However, more than half (65%) of social ventures surveyed declares to measure the social impact they generate. Half of them uses standard methods and metrics and those that involve a third party evaluator are just 11%. It is very likely the current way social ventures use to measure and report the data about their performance is far from having the level of trustworthiness expected by the investors and the barrier of information asymmetries remain relevant (Scarlata & Alemany, 2010). However, results show that very rarely the social impact measurement process is triggered by financiers.

From the interviews, it emerges the absence of an actor playing the *role of keystone*. The keystone of the SII ecosystem should be an independent evaluator providing the social impact measurement infrastructure. It means the needed skills for both investors and investees and a soft-governance
approach to the processes through which measurement standards can be determined. Indeed, in the SII industry, the leverage to mitigate information asymmetries and the related risk of moral hazard seems to be a measurement and reporting infrastructure for social impact; however, it would be crucial to complement the technicalities in terms of methodologies and metrics also with a system to manage the balance of power among the different actors.

However, despite the absence of an actor setting the rules of the game, the relationships among players in the ecosystem are characterized by a *collaborative* approach. Investors work together and with other players both in the scouting and investing phase. This is surprising considering that they report a scarcity of investment opportunities and this could, in turn, lead to a competition to get the best investment. On the other side, it seems that investors are not yet developed the proper instruments to assess the demand side. The predominant use of assessment methods based on an investment logic fails to grasp the intangibles asset own by social ventures such as the embeddedness in the community, the network with stakeholders and the social impact itself. Partnerships with specialized incubators and providers of non-financial services might overcome the difficulties of investors in the scouting and assessment phase. Moreover, co-investing and building public-private partnerships might help to lower to risks and costs related to the absence of track records on financials and social performance.

The current work provides the following contributions to the literature and practice of SII. It helps to empirically ground the SII literature and it is one of the few studies looking at a market outside the Anglo-Saxon countries (Michelucci, 2017; Scheuerle & Schmitz, 2016). An analysis of the status of development of the SII industry in Italy might help practitioners and policymakers to identify those issues they need to work on to gain ground compared to other hallmark countries. Second, we provide a novel approach to SII analysis by combining in one work both data about the supply side and the demand side and making them "talk" to one another. Given that SII is advocated as the solution to funding businesses implementing social innovation (Bugg-Levine &

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Emerson, 2011; Moore, Westley, & Nicholls, 2012), to prove its effectiveness seems to be necessary to catch not only the supply side, but also the demand side perspective on that. The research has implications also for the literature on ecosystems. The focus on social impact creation as value proposition draws the attention the intangible infrastructure of the ecosystem; also, SII ecosystem is an interesting example of an industry where the concept of co-petition might lead the best solution in terms of alignment.

Indeed, the first promising avenue of future study relates to the collaborative approach characterizing the SII ecosystem that will contribute to enlighten the nature of relationships among actors of the ecosystem. Another way to fill the gap of the ecosystem literature on the nature of relationships among the member would be to shift the unit of analysis to the single deal and the couple investors-investees. A second path might be to apply the co-evolutionary theory to jointly investigate the evolution of both demand and supply of impact capital and, whether moving out from an early stage, there will emerge one or more dominant design in terms of type on investors and investees. For instance, several different types of players, private or public, might be a candidate to fill the role of keystone; research might hypothesize how the market will change according to which type/s of actors will take charge of being the keystone.

Despite having reached the saturation in terms of investors and relying upon a quantitative survey of social enterprises to integrate the demand side into the analysis, there is room to enlarge and update the sample. Indeed, SII is still an emerging phenomenon, thus, it is very likely that in the next few years many other players will enter the market and several other approaches will be created. Therefore, a replication of the analysis might allow an understanding of whether our results are contingent on the stage of development of the SII market. In this respect, it would also be interesting to include actors coming from the public sector in the sample, once they step into the market to disentangle the issue related to the keystone of the ecosystem. For example, the public sector might play a crucial role in the issue of impact measurement. In technical terms, it could direct the participatory process of defining broad guidelines for measurement standards and

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promote their diffusion by updating their procurement systems to include criteria for measuring the social impact. This process translates in practice with the creation of proper governance tools, public-private coalitions that involve associations, research organizations, individual businesses, and public and private financiers, allowing the definition of sufficiently heterogeneous and open standards, but shared and generated through a participatory process (Glänzel & Scheuerle, 2016). Moreover, the public authorities could also help to build reliable databases for impact measurement by investing in the open release of public data, by making the sources inter-operable, and by developing public-private partnership schemes that facilitate the release and integration of data from the private sector with that related to public services.

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ECOSYSTEM BLOCKS	CHALLENGES – SUPPLY PERSPECTIVE	REFERENCES	CHALLENGES – DEMAND PERSPECTIVE	REFERENCES
	Lack of knowledge and expertise [of investors] to design, implement, and manage impact investment strategy	Bengo, et al, 2016; Glänzel & Scheuerle, 2016; Ormiston et al., 2015	Eligibility criteria of the investors	Bengo & Arena, 2019; Castellas, Orniston & Findlay, 2018; Lyon, 2016; Lyon & Baldock, 2014; Lehner, 2013
FIRM: the members of the ecosystem and their role	Misalignment between requirements of impact investing approach and expectations of mainstream investors	Clarkin & Cangioni, 2015; Brest & Born, 2013; Antadze & Westley, 2012	Dominance of investment logic	Castellas, Ormiston & Findlay, 2018
	Lack of appropriately design investment opportunities	Martin, 2016; Tekula & Shah, 2016; Hazeberg, et al., 2015; Donald, et al., 2014; Hazenberg, & Denny, 2013; Mendell & Barbosa, 2013; Seddon, et al., 2013		
NETWORK: how value is created	Absence of infrastructure	Kroeger & Weber, 2014; Wood, Thornley, & Grace, 2013; Moore, Westley & Brodhead, 2012	Lack of a tailored approach	Al Taji & Bengo, 2018; Arena et al., 2018; Barraket. Mason, & Blain, 2016; Bengo et al., 2016; Lyon, 2016; Achleitner et al., 2014; Lyons & Kickul, 2013; Seddon, Hazenberg & Denny, 2013 Douglas & Prentice, 2019; Bengo et al., 2016; Weber, 2016; Rizzello et al., 2016; Lyons & Kickul, 2013; Seddon, Hazenberg & Denny, 2013; Antadze & Westley, 2012; Bugg-levine, et al., 2012; Ryan & Lyne, 2008
	High transaction costs	Glänzel & Scheuerle, 2016; Goldman & Booker, 2015; Lyons & Kickul, 2013		
	Lack of liquidity	Brandstetter & Lehner, 2016; Weber, 2016; Mendell & Barbosa, 2013		
GOVERNANCE	Higher level of information asymmetries	Lazzarini, 2018; Achleitner et al., 2014; Cornée & Szafarz, 2013; Evans, 2013; Scarlata & Alemany, 2010	Lack of resources and competencies	
	Moral hazard	Arena, et al., 2018; Glänzel & Scheuerle, 2016; Seddon, et al., 2013; Bugg-levine, et al., 2012	impact	
	Mission drift	Cetindamar & Ozkazanc-Pan, 2017; Achleitner, Lutz, Mayer, & Spiess- Knafl, 2013; Miller & Wesley, 2010		
PERFORMANCE	Assessment of social risk and return	Viviani & Maurel, 2018; Brandstetter & Lehner, 2016; Martin, 2015; Nicholls & Emerson, 2015; Nicholls, Nicholls & Paton, 2015; Ormiston et al., 2015; Serrano-Cinca & Gutiérrez- Neito, 2013; Miller & Wesley, 2010	Social ventures are perceived as even riskier than traditional enterprises	Bengo & Arena, 2019; Fraser, 2007; Strandberg 2007

 Table 1: theoretical framework

ECOSYSTEM	CHALLENGES – SUPPLY	INTERVIEW	CHALLENGES -	SURVEY
BLOCKS	PERSPECTIVE	PROTOCOL	DEMAND PERSPECTIVE	SECTIONS
	Lack of knowledge and expertise [of investors] to design implement and manage	Which financial mechanisms they use.	Eligibility criteria of the investors	Profiling questions: age, sector, scope, legal forms_size:
FIRM	impact investment strategy Misalignment between reaurements of impact investing	Which asset class they used; time horizon: provision of	Dominance of investment	Technology intensity Business Model and Revenues sources:
	approach and expectations of mainstream investors	non-financial services.		Organizational Structure; Founder's
	Lack of appropriately design investment opportunities	characteristics of the target investees (sector, maturity etc.).		strategies
	Absence of infrastructure	How they perform scouting, build the pipeline.	Lack of a tailored approach	Financial sources accessed; Governance
NETWORK	High transaction costs	How they perform scouting, build the pipeline and undertake the due diligence (social and financial).		structure.
	Lack of liquidity	Exit strategies		
	Higher level of information asymmetries	How they perform scouting, build the pipeline and measure social impact ex- ante.	Lack of resources and competencies to measure social impact	Type of social impact generated; Ways to measure social impact
GOVERNANCE	Moral hazard	How they monitor the financial performance of their investment.		
	Mission drift	How they negotiate the financial and social goals with investees. Which is the relationship with the investee after the investment.		
PERFORMANCE	Assessment of social risk and return	How they undertake the due diligence of the social impact; which methods they use to monitor social impact generated by the investees.	Social ventures are perceived as even riskier than traditional enterprises	Business Model and Revenues sources; Type of social impact generated; Target beneficiaries

 Table 2: challenges and data collection tools

#	Organization	Role ¹	HQ	Target	AUM (mln€)	Geographical focus	Asset class	Financial return ²	Sector focus
1	Venture Capital1	СМ	Milan	Start-up	5	National	Equity	UMR	Environment/ Health/ Agriculture/ Art/ Urban regeneration/ Social care
2	Bank1	СМ	Padua	Growth	700	National	Debt	MR	Microfinance/ Environment
3	Bank2	СМ	Milan	Growth/Maturity	6.000	National	Debt	MR/ UMR	Multisector
4	Bank3	СМ	Milan	Growth/Maturity	670	National	Debt	MR	N.A.
5	Bank4	СМ	Rome	Growth/Maturity	2.000	Local	Debt	UMR	Multisector
6	Bank5	CP/CM	Milan	Growth/Maturity	200	National	Equity/ Debt	MR/ UMR	Multisector
7	Foundation1	СР	Turin	Growth/Maturity	180	Local	Equity	C	Health/ Art/ Social housing/ Urban regeneration/ Social care/ Education
8	Venture Capital2	СМ	Turin	Growth/Maturity	144	National	Equity	MR	Environment/ Energy/ Health/ Art/ Urban regeneration
9	Foundation2	СР	Padua	Growth/Maturity	5	International	Equity/ Debt	UMR	Microfinance
10	Family Office1	СР	Turin	Maturity	34,6	National	Equity	MR/ UMR	Social housing/ Art/ Urban regeneration
11	Foundation3	СР	Milan	Growth	10	Local	Equity	UMR	Microfinance/ Environment/ Health/ Agriculture/ Art/ Social housing/ Social Care
12	Venture Capital3	СР	Rome	Growth	40	National	Equity/ Debt	UMR	Multisector
13	Foundation4	СР	Cuneo	Growth	10	Local	Equity	С	Multisector
14	Foundation5	СР	Turin	Maturity	140	Local	Equity	UMR	Social housing/ Social care/ Urban regeneration/ Others
15	Venture Capital4	СМ	Milan	Growth	0	National	Equity	UMR	Multisector
16	Venture Capital5	СМ	Milan	Start-up	0	National	Equity	UMR	Environment/ Agriculture
17	Venture Capital6	СМ	Milan	Start-up	1	Local	Eqity/Debt	UMR	Multisector
18	Insurance Company1	СМ	Trieste	Start-up	10	National	Debt	С	Health/ Social care
19	Venture Capital7	СМ	Luxem burg	Growth	0	National	Equity	MR	Multisector
20	Venture Capital8	СМ	Milan	Start-up	0,3	National	Equity	MR	Multisector
21	Public Financial Institution1	СМ	Rome	Growth	150	National	Debt	С	Multisector
22	Venture Capital9	СМ	Milan	Growth	50	National	Equity	С	Multisector
23	Venture Capital10	СМ	Milan	Maturity	35	National	Equity	UMR	Health/ Agriculture/ Art/ Social housing/ Urban regeneration/ Social care
24	Family Office2	СМ	Milan	Start-up/Growth	6	International	Equity	MR	Multisector
25	Venture Capital11	СМ	Milan	Growth/Maturity	22	National	Equity	UMR	Microfinance/ Agriculture/
26	Venture Capital12	СМ	Milan	Maturity	65	N.A.	Equity	MR	Multisector
27	Venture Capital13	СМ	Turin	Start-up	0,5	National	Equity/	С	Agriculture/ Education/
28	Bank6	СМ	Milan	Maturity	604,6	International	Equity/Debt	MR	Multisector
29	Bank7	СМ	Milan	Start-up/Growth	65	National	Debt	UMR	Multisector
30	Insurance Company2	СМ	Milan	Growth	171	International	Equity	MR	Environment/ Energy/ Social housing/ Social care

 Table 3: list of social impact investors

¹ CM= Capital Manager; CP= Capital Provider ² MR = Market Rate; UMR = Under Market rate; OMR = Over Market rate; C = Capital

BLOCKS	TOPICS	CATEGORIES	CODES	THEME
Firm	Members of the ecosystem and their roles	Knowledge and expertise Impact investing approach Expectations of investors Investment opportunities	Data and tools, methods to measure social impact Scalable business model Role of Keystone assume by a leader of mainstream sector Lack of investment opportunities Poor social entrepreneurial environment Need to scale Lack of competences form public sector to step in the market SGR Banks Corporate and Banking Foundations Real estate investments for urban regeneration European funds Social leasing in PPP Social Bond Social Lending, crowdlending Developing countries Digital platforms	LACK OF ALIGNMENT NEED OF A KEYSTONE COLLABORATIVE APPROACH INTANGIBLE INFRASTRUCTURE
Network	Activities: how value is created	Infrastructure	Social value more important than the economic value Moral and ethical behaviors of people Welfare services as the main target Balanced equity and loan Microcredit Direct Investment Investment through intermediaries Minority Shareholding Socially oriented for-profit vs. non-profit Support the investee Public policy to grow the demand side Stewardship role of public sector Guarantee mechanisms Develop competencies, need of capacity building More intermediaries Social Impact Agenda (advocacy organization) Raise awareness Incentives	
	Network structure: relationships and level of interconnection among BE actors	Transaction costs Liquidity	Indirect Co-investmentsNetwork for scouting Call for ideas Capacity building program University for scouting Consultant Low liquidity	
Governance	Governance, rules of ecosystem participation	Information asymmetries Governance mechanisms	Top-down approach in the definition of social objectives Negotiation in the definition of social objectives	
Performance	Performance	Social risk Social return Financial risk Financial return	No method to measure social impact No quantification of social impact Qualitative assessment of social goals Positive financial returns Below market rate financial returns Market rate financial returns Higher risk of investment	

 Table 4: coding process

CHALLENGES	ALIGNMENT STRATEGIES		
Lack of appropriately design investment	Technological business model		
opportunities Eligibility criteria	Social venture legal framework		
Lack of resources and competencies to measure	Keystone as third party evaluator of the measurement of social		
social impact	performance		
Moral hazard			
Dominance of investment logic	Co-investment		
Lack of knowledge and expertise [of investors] to	РРР		
strategy	Partnerships with incubators and provider of non-financial services		
Higher level of information asymmetries	Capacity building promoted by investors		
Lack of appropriately design investment			
opportunities			

 Table 5: potential alignment strategies