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

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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 start-ups 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 30-euro 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 start-ups, 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

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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 start-ups 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 start-ups 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