Enabling social entrepreneurship internationally: An entrepreneurial ecosystem perspective

Stanislav Vavilov
University of Massachusetts Boston
College of Management
stanislav.vavilov001@umb.edu

Stephan Manning
University of Massachusetts Boston
College of Management
Stephan.Manning@umb.edu

Abstract

International social ventures become important sources of innovations and social change in the developing and least developed countries. Building on literature on entrepreneurial ecosystems, institutional theory, and international business theory, this study explores the enabling conditions for social entrepreneurial activity in the international domain. Using Spigel (2017) relational framework of a regional entrepreneurial ecosystem, on the example of Boston, we identify that research networks of region-based universities and NGOs with counterparts in developing world, “global citizen” orientation of regional resource-holding audiences, and interlinks of regional actors with transnational foundations and development organizations create and reproduce environment supportive of international social entrepreneurs. Findings have important implications for researchers and policy-makers in the fields of entrepreneurial ecosystems, social entrepreneurship, and bottom-of-the-pyramid markets.
Enabling social entrepreneurship internationally:
An entrepreneurial ecosystem perspective

ABSTRACT
International social ventures become important sources of innovations and social change in the developing and least developed countries. Building on literature on entrepreneurial ecosystems, institutional theory, and international business theory, this study explores the enabling conditions for social entrepreneurial activity in the international domain. Using Spigel (2017) relational framework of a regional entrepreneurial ecosystem, on the example of Boston, we identify that research networks of region-based universities and NGOs with counterparts in developing world, “global citizen” orientation of regional resource-holding audiences, and interlinks of regional actors with transnational foundations and development organizations create and reproduce environment supportive of international social entrepreneurs. Findings have important implications for researchers and policy-makers in the fields of entrepreneurial ecosystems, social entrepreneurship, and bottom-of-the-pyramid markets.

Keywords: Not-for-profit and/or Social Entrepreneurship; Regional Environment; Clusters; Industrial Districts; International & Transnational Entrepreneurship
INTRODUCTION

Social and development challenges are increasingly global in nature (Zahra, Rawhouser, Bhawe, Neubaum, & Hayton, 2008), while at the same time governments increasingly face budget constraints, lack capabilities, and lack coordination capacity in trying to tackle these challenges (Boddewyn & Doh, 2011). This is partly why so-called international social ventures (ISV) are on the rise – enterprises that combine social and commercial goals and target international markets (Zahra, Newey, & Li, 2014). To launch such ventures, international social (IS) entrepreneurs need to not only get institutional support (Aldrich & Fiol, 1994) and overcome liability of newness (Stinchcombe, 1965) but also overcome liability of foreignness (Zaheer, 1995) and build international networks (Forsgren, 2016). In cases where ISVs serve so-called bottom-of-the-pyramid markets (BOP), i.e. lower-income consumers mostly in developing countries, these difficulties are magnified by the typical resource scarcity of BOP environments (Seelos & Mair, 2007) and extreme cultural and institutional challenges (Van den Waeyenberg & Hens, 2012). Despite these difficulties, there is a growing number of ISVs targeting particularly the least developed economies. Interestingly, most of these ISVs do not originate from these countries but rather from major cities in advanced economies, such as Boston or San Francisco in the U.S. In this study, we try to further examine this trend.

In the start-up and early growth phase, entrepreneurs often rely on resources provided by so-called entrepreneurial ecosystems (Audretsch, Falck, Feldman, & Heblich, 2012; Autio, Kenney, Mustar, Siegel, & Wright, 2014; Isenberg, 2011). Traditionally, those ecosystems would support businesses targeting customers from the same region (Spigel et al., 2017). Increasingly, however, entrepreneurial ecosystems are expected to be supportive of rapid internationalization of new ventures as well (Fernhaber, Gilbert, & McDougall, 2008). In parallel, entrepreneurial
ecosystems no longer focus just on supporting purely commercial start-ups, but have recently added support infrastructures benefitting social enterprises as well, i.e. enterprises combining profit-making with a social mission (Roundy, 2017). These two parallel trends are critical in particular for ISVs, since they start as social enterprises within an international orientation from the very beginning. Yet, especially our knowledge on how ISVs are supported by ecosystems is fairly limited, despite the increasingly important role of ISVs in becoming vehicles of change in developing economies reaching millions of poor, bringing innovations, and making a business case in challenging environments (Zahra et al., 2014). Given the growing importance of ISVs, we need to better understand how and under what conditions entrepreneurial ecosystems are capable of effectively supporting ISV formation?

To answer this question, we conducted a qualitative case study of the Greater Boston ecosystem supporting ISVs that target emerging economies, mostly Africa. As part of the study, we analyze how the strategies and business models of social entrepreneurs get shaped by the entrepreneurial ecosystem they operate in. Our main data source are semi-structured interviews with founders of social ventures, representatives of incubators, international development organizations, and universities. In analyzing our data, we apply Spigel’s (2017) relational framework of a regional entrepreneurial ecosystem, which combines an analysis of cultural, social and material attributes that entrepreneurs tap into as they start their ventures. The framework was initially developed to explore the ways regional resources create and reproduce an entrepreneurial ecosystem. In order to explore the conditions under which entrepreneurial ecosystems may support ISVs, we extend Spigel’s relational framework, informed by concepts from institutional theory and international business theory, and informed by our data.
With our study we aim to make three contributions to future research. First, we seek to extend the growing research on entrepreneurial ecosystems by developing a more nuanced understanding of the conditions that make regional ecosystems supportive of ISV-entrepreneurs. We build a stronger connection between two largely separate debates – on entrepreneurial ecosystems on the one hand, and international social ventures on the other hand – which will be of interest to entrepreneurship and international business research, as well as policy-makers interested in promoting social ventures (Autio et al., 2014). Second, our study informs the literature on social entrepreneurship by specifying the interplay between social ventures and the environment they originate from (Roundy, 2017). Third, we are aiming to add to the literature on BOP strategies, by uncovering key enablers for creating ISVs that target issues in developing countries. We thereby extend prior BOP research that has focused often on BOP strategies of MNEs (Kolk, Rivera-Santos, & Rufin, 2014), while somewhat neglecting the importance of start-ups in tackling issues of poverty at a transnational level (Polak & Warwick, 2014).

Next we discuss the concept of entrepreneurial ecosystems. Then we discuss and extend the relational framework that we use as a sensitizing device. This is followed by an analysis of the attributes of the Boston entrepreneurial ecosystem in support ISVs. Then we formulate propositions and implications for future research.

ENTREPRENEURIAL ECOSYSTEMS

Entrepreneurial processes and innovative activity happen in complex, multi-layered environments (Aldrich & Fiol, 1994; Autio et al., 2014; Thornton, 1999; Welter, 2011). As new technology firms are an important source of innovation and wealth creation (Shane, 2000), in recent years practitioners and policy makers have been making significant efforts to develop
environments supportive of new ventures (Audretsch et al., 2012; Autio et al., 2014; Isenberg, 2010). These environments are often called entrepreneurial ecosystems: localized unions of institutions, such as incubators, universities and venture capitalists, policies, outlooks, and communities of firms and professionals that jointly create and reproduce support environments for typically innovation-focused entrepreneurial ventures (Spigel, 2017). Entrepreneurial ecosystems are important for entrepreneurs as they provide resources tailored specifically to the entrepreneurial process (Maskell, 2001). Moreover, actors in regional entrepreneurial ecosystems actively participate in the entrepreneurship process (Feldman & Zoller, 2012).

Entrepreneurial ecosystems have been mostly studied on the regional level, e.g. Calgary and Waterloo (Spigel, 2017), and St. Louis (Motoyama & Watkins, 2014). Yet, the influence of entrepreneurial ecosystems extends beyond regional boundaries. For example, diaspora networks often connect multiple entrepreneurial ecosystems, which in conjunction impact entrepreneurship at the transnational level (see e.g. Drori, Honig, & Wright, 2009). Regional ecosystems may also be connected by alliances and networks of incubators and venture capitalists operating across borders. For example, several venture capital firms specialize in supporting Silicon Valley-based entrepreneurs with operations in India, Taiwan and other Asian locations (see e.g. Bresnahan, Gambardella, & Saxenian, 2001). Overall, research suggests that ecosystems that are connected with communities and institutions across regional boundaries can be very supportive of the rapid internationalization of new ventures (Fernhaber et al., 2008).

Aside from gradually expanding ecosystems research into the context of international ventures, recent research has also theoretically explored the structural factors that may influence the creation and survival of social ventures, i.e. enterprises that address societal problems using feasible business models (Austin, Stevenson, & Wei-Skillern, 2006). For example, Roundy
(2017) proposes that diversity of investors, presence of social-venture support organizations, learning opportunities, and an altruistic culture among resource holders increase the likelihood of social venture creation and survival in a particular ecosystem.

However, research on how ecosystems support international and social ventures is in its infancy. At the same time, in particular international social ventures (ISVs) are on the rise – creating an urgent need to better understand how ISVs can be supported by regional ecosystems. ISVs are specific social enterprises that focus on exploiting business opportunities with social impact on a global scale (Zahra et al., 2014). Affordable and innovative services and products that have been introduced by ISVs in developing markets include education, telecommunication, transportation, various energy appliances such as solar lighting products and many more products. Randomized control trials confirm that products and services ISVs bring to underserved markets have significant impact on the wellbeing of consumers. Such bottom-up approaches are considered an important source of change in poverty settings (Westerly, 2006).

In this study, we seek to examine the conditions that make a regional entrepreneurial ecosystem supportive of entrepreneurs that are focused on discovery, creation, and exploitation of international business opportunities with social impact. The social and international aspects of ISVs’ activities add important and unexplored complexity to an understanding of the interplay between entrepreneurial ventures and regional entrepreneurial ecosystems. For example, ISVs target customers in remote markets rather than the region of origin. In other words, ISVs typically lack connections to customers and markets in the region of origin. Nor can the social infrastructure of home regions, including social funding, infrastructure, education and other conditions, be expected to resemble the social infrastructure of target markets. In fact, entrepreneurial ecosystems are typically geared towards supporting local entrepreneurs targeting
local and regional markets (Feldman, 2001; Spigel, 2017; Spiling, 1996). Thus, it will be essential to examine how regional ecosystems can support the social and international dimension of ISVs. Next we develop a framework to explore this question.

**HOW ECOSYSTEMS SUPPORT ISVs: A RELATIONAL FRAMEWORK**

With rising interest in entrepreneurial ecosystems, researchers have developed several approaches to understand components of entrepreneurial ecosystems and the factors that determine their success (Cohen, 2006; Neck, Meyer, Cohen, & Corbett, 2004; Motoyama & Watkins, 2014; Spigel, 2017). Motoyama and Watkins (2014) for example explore the density of connections among entrepreneurs, between entrepreneurs and supportive organizations, and among supportive organizations as factors that influence the formation of entrepreneurial ecosystems. Spigel (2017) builds on previous frameworks and develops a more systematic relational understanding of the various dimensions of ecosystems supporting new ventures. Specifically, he explores the composition of cultural, social and material resources (or attributes) in regions that constitute a supportive environment for entrepreneurship, and he emphasizes the importance of relations between these attributes that allow an ecosystem to reproduce itself. In Spigel’s relational framework, cultural attributes refer to beliefs and success stories shared among entrepreneurs and resource-holder audiences; social attributes refer to social networks and supportive capital; and material attributes refer to universities, supportive infrastructures, and policies. To further analyze conditions that make an entrepreneurial ecosystem supportive of ventures that pursue international social business opportunities, we extend Spigel’s relational framework by adding insights from institutional theory and international business theory.
Material attributes.

Material attributes stand for tangible resources in a region that contribute to development and growth of innovative startups. Spigel (2017) distinguishes between four types of material attributes: universities, support services and facilities, policy and governance, and open markets.

Universities are cradles of research activities, which can result in academic entrepreneurship, and are also an important source of student-initiated entrepreneurship and talent for new ventures. Support services and facilities include commercial firms, incubators, centers, labs, initiatives and ad-hoc activities focused on unique challenges new ventures face. Support services and facilities provide guidance to ventures in legal, accounting, networking, human resource and other meaningful domains of entrepreneurial activity.

In the relational framework, local markets are included under the umbrella of material resources because strong local markets “often act as the catalyst for the development of an entrepreneurial ecosystem” (Spigel 2017: 7). As we already mentioned, due to the international nature of ISV entrepreneurship, the region an ISV originates from and the market an ISV targets are not the same. For this reason, even though we account for local markets, we do not explicitly include them as a category in our analysis.

Spigel (2017) also includes regulation and policies into the material attributes category explaining that policies and governance materialize in public programs that create contexts supportive of entrepreneurship in a region. Due to its regional focus, the relational framework does not include policies, laws and governance that influence entrepreneurial activity on a country-level. However, for businesses preparing themselves to operate across multiple political and institutional environments, the institutional context of a regional ecosystem can be very important. This is not least because, according to international business theory, country- and
region-level institutional conditions can be an important source of competitive advantage for ventures operating in the international domain (Peng, Wang, & Jiang, 2008). In order to account for institutional influence in a more holistic way, we distinguish between regional and country-level policy, laws, and governance, resources that contribute to the creation and growth of ISVs.

**Social attributes.**

Social attributes of an entrepreneurial ecosystem, according to Spigel (2017), include resources that are acquired through social networks, such as capital, knowledge, and talent. High density of social networks and availability of resources that are acquired through networks make a region supportive of entrepreneurial activity.

Due to the international nature of opportunities, from the start, ISV-entrepreneurs are involved in the process of acquiring various resources not only in their home entrepreneurial ecosystem but also in target markets. International business theory emphasizes that in the process of internationalization, organizations face multiple obstacles, such as psychic distance (O’Grady & Lane, 1996) and liability of foreignness (Zaheer, 1995). These obstacles are especially important when organizations target markets where informal institutions dominate (Kistruck, Webb, Sutter, & Bailey, 2015). Resources that are important for overcoming these specific challenges include access to networks in target markets (Forsgren, 2016) through which ventures acquire knowledge (Knight & Cavusgil, 2004; Kogut & Zander, 1993), talent, capital, and partnerships (Webb, Kistruck, Ireland, & Ketchen, 2010).

We also aim to account for specific social attributes that support ISVs in the process of internationalization. Social attributes that have a potential to support entrepreneurs in the process of internationalization include connections and relations of ISVs and regional actors with
transnational actors, such as government agencies, foundations, and international development institutions, and connections with networks and organizations on target markets, such as NGOs, universities, or start-up incubators, are also of significant importance. For example, partnerships with NGOs are one of the most valuable resources for MNEs that develop a footprint in the BOP markets (Webb et al., 2010). Diaspora cross-country connections represent another type of network that enhances international entrepreneurship in general (Drori et al., 2009), and international social entrepreneurship in particular.

**Cultural attributes.**

Underlying beliefs and entrepreneurial outlooks, such as success stories, are cultural attributes that create a supportive environment for entrepreneurs because they legitimize and normalize support for entrepreneurship within a regional community (Spigel, 2017). In this research, we are interested in identifying cultural attributes that enable regional ecosystems to support ISVs rather than entrepreneurship in general. For this reason, we take a more fine-grained approach and focus on cultural attributes on a level of resource-holder audiences.

For this purpose, we borrow a key concept from institutional theory that allows for a more nuanced analysis of the supportive effect of cultural attributes – the concept of legitimacy. In general, legitimacy refers to the level of acceptance of an activity or project in the eyes of critical stakeholders (Mitchell, Agle, & Wood, 1997). For entrepreneurs, legitimacy thus becomes “an important resource for gaining other resources” (Zimmerman & Zeitz, 2002), such as human and financial capital. One of the barriers to gain resources for a new venture is their lack of legitimacy due to so-called liability of newness (Stinchcombe, 1965). However, in highly developed entrepreneurial ecosystems, instead of being a barrier for gaining resources, newness
can become an enabling condition to gain resources. Yet, newness is not the only barrier for gaining legitimacy. According to institutional theory (Zimmerman & Zeitz 2002; Bruton, Ahlstrom, & Li, 2010), a venture has to be legitimate from normative, cognitive, and regulative perspectives of resource-holders. For example, Fisher, Kuratko, Bloodgood, and Hornsby (2017) and Pahnke, Katila, and Eisenhardt (2015) emphasize that seeking legitimacy may require the alignment with different institutional logics that govern the decision making process of resource-holders.

Chasing for legitimacy, new ventures are involved in strategic actions such as creating narratives (Lounsbury & Glynn, 2001) and applying symbolic management to elicit feedback and craft an identity and image that is consistent with values, beliefs, cognitive schemas, and norms of resource holders (Zott & Huy, 2007). In other words, to be legitimate for particular audiences, distinctive characteristics of ISVs, such as their initial international focus and social orientation, have to resonate with values, beliefs, norms, and cognitive schemas of resource holders (Golant & Sillince, 2007). Thus, to understand under what conditions ecosystems may support particular social-business opportunities, it is also important to identify key interests, values, beliefs, and institutional logics of resource-holders within that ecosystem. Thereby the history of business activity supported within particular ecosystems is path-dependent. This is because, “legitimacy is viewed retrospectively—that is, the survival of the organization indicates that legitimacy is present” (Zimmerman and Zeitz, 2002: 414). In other words, ecosystems that have supported ISVs in the past may be more likely to continue supporting ISVs.

**DATA AND METHODS**

We adopt a qualitative case study approach to identify the conditions that create an environment
supportive of the creation and growth of ISVs. Qualitative methods can be used to explore complex phenomena about which little is known and/or about which a novel understanding is needed (Strauss & Corbin, 1998). We thereby use our extended relational framework as a sensitizing device. Importantly, this framework is only used as a guide for our explorative analysis, since it does not ‘provide prescriptions of what to see’ but only ‘suggests directions along which to look’ (Blumer, 1954: 7).

We chose Boston as a setting because of two reasons. First, Boston has a highly developed entrepreneurial ecosystem, especially for highly innovative, and technology-based businesses (Owen-Smith & Powell, 2005; Saxenian, 1994). Second, in recent years Boston has become one of the major hubs for international start-ups specializing in BOP markets and in serving needs particularly in regions such as Africa. In fact, a growing number of ISVs report Boston to be the region of origin. ISVs originated from Boston in recent years include Moringa Connect, Sanergy, change:WATER Labs, and Wecyclers. In terms of social focus, most of these ventures develop a specific business model targeting low-income populations and/or use technology to overcome some aspect of poverty, including digital divide between rich and poor, lack of access to education, and energy poverty. The fact that Boston has repeatedly enabled effective ISV entrepreneurship makes it particularly interesting for our study.

Main data source are semi-structured interviews with ISVs’ founders, employees of ISVs, employees of universities, incubators, and other support organizations in the Boston ecosystem. In addition, we interviewed a number of experts on ISVs and social entrepreneurship to get a better understanding of the context of ISV support. In total, we conducted 23 interviews. Interviews were conducted June-December 2017 and lasted between 30 and 70 minutes. All interviews were recorded and fully transcribed. The interviews were semi structured and asked
interviewees about the business model of their ventures and intermediary organizations, the process of establishing and growing a venture, networks and partners in the domestic and target markets, and support IS-entrepreneurs gain in the early phases of a venture. When selecting entrepreneurs from the Boston ecosystem for interviews, we looked at three parameters. First, their venture needed to originate in Boston. Second, the venture’s target market of operation needed to be a developing or least developed country. Third, the value proposition of the ISV had to have a component of social value. List of interviewees is presented in the Table 1. Secondary materials, such as websites, presentations, and public talks, were also extensively used.

For data analysis, we first cross-tabulated responses. The relational framework served as a grouping device in this process: interviews were coded for information related to the attributes of entrepreneurial ecosystems. The relational framework provides guidance for analysis on two levels of the entrepreneurial ecosystem. The first level refers to the main category — cultural, material, or social. The second level represents a variety of attributes within each category. In the previous section, we extended the second level of the relational framework by specifying it for international social-business opportunities. Thus, as a second step of our analysis, we made a comparison of findings inside each attribute category. As a third step, we analyzed similarities and differences between categories and inside each category to determine which attributes of entrepreneurial ecosystem are particularly supportive of ISVs and the ways these attributes support an ISV.

Next, we discuss the main attributes of the Boston entrepreneurial ecosystem that enable
and support the formation of ISVs and their further activity. First, we analyze the material attributes in order to understand main organizational actors and their roles; then we look at social attributes, to understand which resources ISVs receive; finally we look at cultural attributes to understand the logic(s) that drive decision making processes of resource-holders.

HOW THE BOSTON ENTREPRENEURIAL ECOSYSTEM SUPPORTS ISVs

Material attributes: Research universities, NGOs, and incubators.

We first identified the main region-level actors that have created an environment in support of international social entrepreneurship in Boston: research universities, NGOs, and multiple supporting organizations that support new ventures in general and ISVs in particular.

Universities in Boston are among the global leaders in doing research in such areas as energy, telecommunications, education, and health. According to the Sustainable Development Goals, the issues in these areas are among the most salient in the least developed countries. Because of these specializations, researchers from Boston-based universities either initiate or act as partners in research focused on creating and transferring technology for developing and least developed countries. Multiple international foundations and development agencies, such as USAID, Rockefeller Foundation, and Bill and Melinda Gates Foundation, support this research, and universities from Boston receive a share of it. For example, UMass Boston is one of the partnering universities on a USAID-sponsored collaborative project “Improving Coffee Production and Quality Using Infrared Technology”. Other partner universities include University of Addis Ababa (Ethiopia) and University of Hohenheim (Germany).

Universities also create learning environments for students and aspiring ISV-entrepreneurs. One of the important examples is D-Lab at MIT, an educational and innovation
center. Over the last 15 years it has grown from initially two classes and one international trip to Haiti to 20 classes and 20 countries visited. Engaged in D-Lab activities, students become embedded in settings of developing countries and learn “real world engineering”. ISVs such as MoringaConnect, a Ghana-based venture that produces oil products, grew from D-Lab.

Another important regional player in the field of research and project activities related to developing countries are international NGOs located in Boston. Headquarters of Oxfam, one of the most acknowledged foundations in international development; D-Tree International, a healthcare nonprofit that creates innovative products for point-of-care diagnosis and treatment for under-served communities; and The Last Mile Health, a charity that provides training to community health workers in Liberia, are located in Boston. NGOs play an important role as they attract talent, conduct events related to problems in developing world, and generate demand for specialized supportive services.

ISVs and aspiring ISV-entrepreneurs are supported in Boston by incubators, labs, centers, and various initiatives. Among important university-based centers are the International Development Innovation Network and the MIT Legatum Center, which provide grants and fellowship to MIT students pursuing opportunities in developing countries. Universities have also established specific organizations with a direct purpose to support BOP-related initiatives, for example D-Lab at MIT. Not only university-based centers, but also independent ones target ISVs as the major group of entrepreneurs to support. For example, Venture Well, a non-profit accelerator, funds and trains faculty and student innovators to create successful, socially beneficial businesses, including those in international domains. Consultancies are involved in supporting ISVs. For example, IDEOcolab, a research arm of the world-famous design consultancy IDEO, conducts a series of workshops in Boston focused on “exploring
opportunities to solve human problems using emerging technologies like block chains and artificial intelligence.”

ISVs and aspiring ISV-entrepreneurs also receive support from multiple organizations in Boston that support new ventures and entrepreneurs regardless of the opportunity they pursue. These organizations include student-run law clinics in universities, venture cafes, and other new ventures focused generic initiatives and organizations. We find that the protective institutional environment of the U.S. plays an important role for ISVs. The fact that a venture is incorporated in an emerging or least developed economy can be an important barrier for investors. However, ISV-entrepreneurs that start in Boston, in most cases incorporate an entity in the U.S. When an ISV starts operation in a developing country, it incorporates a subsidiary in a country of operation. In this case, intellectual property belongs to the U.S. corporation. A founder of an ISV explains benefits of incorporating a venture in the U.S.:

We started at Ghana, but we want to make something more general, which can expand in many countries and have operations in many more countries. So it seems to make more sense to do something like that from the US. And most practically if we get investors, donors, or anyone from the US, it was easier to register in the US. It is easier imagine Nigerian investor familiar with an American system than US investor familiar with Nigerian incorporation system.

Incorporation under the U.S. law and operating in emerging and least developed economies is an important bundle that attracts investors that pursue social impact of their investments.

Social attributes: Transnational networks for getting knowledge, funding and talent.

Networks that ISVs benefit from include alumni networks, diaspora networks, networks provided by regional supportive organizations, and networks with transnational organizations.
From the perspective of attracting capital, there are several cases of traditional investors providing funding to ISVs. For example, Boston-based accelerators provide seed funding to ventures that work in developing countries. As a recent example, MassChallenge, a Boston-based non-profit startup accelerator, invested in Tembo Education, a start-up that educates 0-6 year old children in slums around the world via mobile phones. Another example is BlueHaven Initiative, a Cambridge-based family office that makes environmental and social impact investments, invests in Spire, an educational firm founded by Harvard alumni that scales online education in Africa. ISVs that originate in Boston attract investors from around the world. For example, Bridge International Academies has attracted $140m in equity capital from several investors, including Bill Gates, Mark Zuckerberg and Pierre Omidyar, from venture-capital funds such as Learn Capital, Khosla Ventures, and Novastar, and from development agencies such as International Finance Corporation (World Bank), CDC (UK), and OPIC (USA). Yet, in most cases, for ISVs attracting funding from traditional investors is an exception rather than a rule. As founders of ISVs emphasize, pursuing social business opportunities in an international domain is not a strong proposition for venture capital. A co-founder of an ISV explains:

*We are not going be the next Uber, but the idea solving a real social problem while also making it “you not gonna lose your money”, and you might make money when we are successful. They are willing to subsidize some risk knowing that if we are successful there will be some impact. We are focusing on these types of investors, who are doing it partly because of a social impact.*

The most important sources of funding for new ISVs are specific grants and fellowships provided by universities and foundations. For example, universities organize new ventures competitions and awards to support new ventures, including ISVs. Salient examples of entrepreneurial competitions and awards include the MIT 100K competition and Harvard Africa Business Conference New Venture Competition. Foundations also organize special competitions
for social ventures, for example The Hult Prize organized by The Hult Foundation. ISVs from Boston also participate in competitions and awards in other parts of the U.S. and globally. Grants and awards are important for early stage ventures as they are provided without any commitment to return on investment. A co-founder of an ISV explains benefits of grants and awards:

_We've been fortunate enough to not have to raise any money. We've been funded pretty much straight out of the grants that we've gotten through different initiatives and opportunities, which has given us a lot more flexibility without raising any money and giving up any equity – and also, the time that it would have taken to raise significant money to be able to work on stuff... we skipped that phase and we're able to just work and deliver on products._

Importantly, universities, NGOs, and supporting organizations increasingly receive funding from transnational organizations for the purpose of research and project activities related to developing and least developed markets. For example, Venture Well initially operated under a brand National Collegiate Inventors and Innovators Alliance (NCIIA) focusing on social opportunities related to U.S. After it started to work with USAID, Kaufmann Foundation, and Bill and Melinda Gates Foundation, it changed in strategic orientation to supporting ventures that pursue social business opportunities at a global scale. In total, the amount of grant funding provided by U.S. foundations to organizations located in Boston with a purpose to fund activities in or for Africa grew from about $20 million in 2006 to about $140 million in 2016. The number of grants grew from about 100 to about 400 over the same period (Foundation Center, 2017). In this case dense regional networks with transnational actors such as foundations and international development agencies play an important role in creating supportive environment for ISVs.

Talent is another important resource for a new venture. At the beginning, founding teams tend to be small, with co-founders coming from universities and research networks. In the initial phase, ISVs strongly benefit from diversity of talent in an ecosystem. To connect ISVs with
talent, supportive organizations conduct specific networking events. For example, Developers for Development, a student-led initiative from Harvard College, organize The International Development Hackathon, a forum that attracts students from Massachusetts and nearby states for a weekend-long workshop focused on “use "new" technologies to solve "old" problems in the developing world.” Importantly, in Boston, students are motivated in participating in socially oriented activities. As a co-founder of ISV points out:

*It is a bit easier to get intrinsic motivations from students who volunteer in Boston because they are willing to work for something, which doesn’t pay a lot because it has some kind of social.*

As an ISV grows, it relies more on talent from target markets, as it has more location specific knowledge and is substantially cheaper. Connecting to talent in developing countries, ISVs exploit alumni networks. Boston-based universities such as MIT, Harvard, Tufts, Boston University, have alumni networks in almost every country in the world, including the least developed ones.

In the next phase of growth, if an ISV scales, it may bring product development and R&D units back to Boston. A salient example of such a strategy is Bridge International Academies, an education technology start-up co-founded by a Harvard alumnus. Educating more than 100,000 pupils in Uganda, Kenya, Nigeria, India, and Liberia, its academics team of more than 50 professionals conducts curriculum and software development from Cambridge, MA. A co-founder of an education technology ISV explains:

*We don’t have money and scale right now to host those kinds of operations in the US. If we were much bigger, then the goal for the next step of the company is not so much figuring stuff out on the ground, but improving the kind of service we are offering, for example introducing adaptable learning, a little bit of R&D. The you can imagine small, mini R&D center here, we can hire someone, even just volunteer students who can work on algorithms, if that talent couldn’t be found been found locally in Nigeria. Which is usually hard because, that kind of talent in Nigeria tends to work in the bigger*
companies, like Google or Facebook that have offices there.

Another important role of networks for ISVs is getting first-hand knowledge about target markets. Many entrepreneurial teams focused on social issues in developing countries grow from academic or student research and thus may not be familiar with particular settings they develop a technological solution for. Recognizing this issue, supportive organizations bring academics and aspiring ISV-entrepreneurs into the developing country settings. For this purpose, they usually use their connections and relations with transnational organizations. A program manager of an incubator explains:

_We’ve gone to Malawi a couple of times because USAID has really strong relationships with Rice University and the Queen Elizabeth Central Hospital in Malawi. They’ve grown this pretty amazing program over the past three years of developing technologies at Rice University and then using this hospital in Malawi to further develop, refine, test them and then scale and implement across the country of Malawi._

Another way to connect entrepreneurs to success stories and experience is through mentoring. Mentor networks developed by supporting organizations play an important role in familiarizing ISV-entrepreneurs with issues related to particular markets and industries.

**Cultural attributes: “Global Citizen”, “Innovation”, and “Feasibility”**

Actors in entrepreneurial ecosystems that support ISVs and ISVs themselves share a determination towards impact. However, we identified that there is no shared understanding among resource-holders about “what” the impact actually is. Boundaries of what is social and environmental impact are vague and flexible. Resource-holders do not demand a particular type of impact from entrepreneurs. In some cases, even the fact that a new venture targets a developing country is already recognized as an impact by resource-holders.
Instead of sharing a particular understanding about “what is impact”, aspiring ISV-entrepreneurs, ISVs, and resource holders share values that can be explained by the global citizenship orientation of ecosystem participants. These values and beliefs are often explained as “we have skills to make lives of others better”, “we provide access to modern services and products to those who lack it”, “we solve problems of those who are in need”, “billions of people suffer from a problem, imagine that we live in these conditions”. One interviewee emphasized – “countries where we operate are very similar to the US about a century ago”. The “Global citizen” orientation emphasizes that an actor has a global agenda, actor’s openness to projects that bring impact in various forms elsewhere, rather than in a region of presence. This orientation legitimizes ISVs and backs decision-making processes of resource-holders.

Importantly, even though there is no shared understanding of “what the impact is”, resource-holders have a shared understanding of “how” impact should be created. We identified two important principles that specify the “global citizen” orientation. The first is “providing impact with innovation”, or innovation principle. This principle emphasizes the belief that modern science and technology can lead to substantial changes for good in developing economies. A program manager of an incubator explains the criteria of start-up selection for grant support.

*Start-ups all have to have social impact and an invention, a technology component to it. The social impact can be realized by the nature of technology, say it is clean energy invention or healthcare invention. Or maybe it is by realizing an impact by the markets disturbing, for example emerging markets.*

The innovation principle in selecting applicants is important not only for regional resource-holders, but also for transnational actors, such as USAID. In recent years USAID launched nine grant programs under an umbrella Grand Challenges for Development –
Humanitarian Grand Challenge, Ensuring Effective Health Supply Chains, Scaling Off-Grid Energy, Powering Agriculture, Fighting Ebola and other. Each of these programs supports dozens of research partnerships that develop and transfer various technology solutions for developing countries. Each of the USAID Challenge programs explicitly mentions innovations as the source of change.

Another important principle shared by many resource-holders is “providing impact in an economically feasible way”, or the feasibility principle. For resource-holders of high value is a venture’s orientation to deliver impact in a financially sustainable way. Resource-holders understand that relying constantly on grant support rather than on a revenue-based business model, can lead to failure. Failure stories emphasize the importance of hybrid business models.

A former employee of an ISV explains the revenue model of a failed ISV:

> It was easier to apply for a new grant for a new project than it was to find continued funding for the products that had already been developed which ultimately turned out to not be a sustainable way to run a business because the funders eventually got wise to the fact that no products were actually reaching the market.

By training researchers and entrepreneurs to develop a hybrid business model, supportive organizations align the narratives and activities of ISV-entrepreneurs with the feasibility principle of resource holders. An investment manager of an incubator explains:

> We are training these start-ups to be able to make a case that they can be self-sustaining, and could be in theory venture backable, get a loan and pay back.

These two principles – innovation and feasibility – are presented in selection criteria of supportive organization. An investment manager of an incubator explains its selection criteria:

> We have three buckets of stages we look at – there is a product-market fit stage, it is verifying if anyone actually cares about your technology, if your technology does something for anybody. For the once that are for emerging markets, preferably they’ve been there and they have an understanding of a problem first hand. It is not just, I’m
sitting at my classroom at MIT and I read about a problem in a book and I think this will solve it. They need to have first hand understanding of a problem and customer data that shows that this technology will solve a problem for them. And there is a big difference, especially at the early stage, between need and demand. Just because people need something, it would be great for them and solve a problem for them, it is not necessarily that they will pay for it.

The slogan of MIT IDEAS Global Challenge, an annual social entrepreneurship competition – “Innovation, Impact, and Feasibility” – summarizes these principles as well.

**DISCUSSION.**

Based on our analysis, we now propose what conditions make regional ecosystems particularly supportive of ISV-entrepreneurs. These propositions are designed to inform not only research on entrepreneurial ecosystems but also on antecedents of international social ventures (ISVs) (see e.g. Zakaras, 2016; Zahra et al., 2014; Roundy, 2017).

Our analysis suggests that universities are not only one of the main actors in entrepreneurial ecosystems in general (Spigel, 2017), but they are also core to ISV-supporting ecosystems. They contribute to ecosystems in general through academic and student spinouts (Kirchhoff, Newbert, Hasan, & Armington, 2007). Importantly, spinouts often are unplanned consequences of academic or student research (Shane, 2004). In other words, they are to some extent an unintended spillover effect of research activity. Similarly, most of ISVs in Boston are academic and student spinouts from universities that initiate and participate in research partnerships focusing on creating solutions for problems in developing countries. That is, university or research infrastructures seem crucial for many ISVs to get started in the first place. Such projects may not necessarily come out of programs targeting BOP markets, but they may, again, be spillovers of more regular exchange and research programs. Another important driver
of research activities in ecosystems may be international NGOs. Their research more intentionally targets developing countries. We propose that the combination of research targeting developing countries (more or less intentionally) may contribute to the resource value of ecosystems for ISVs. We thus propose:

**Proposition 1.** The more strongly resource holders within a regional ecosystem are involved in research related to problems in developing and least developed economies, the more effectively can such an ecosystem support international social ventures.

Also, prior research suggests that cultural attributes such as underlying beliefs and success stories are critical for creating a supportive environment on a regional level as they normalize and legitimize entrepreneurship as an activity in a particular region (Spigel, 2017; Stuetzer, Obschonka, Brixey, Sternberg, & Cantner, 2014). We extend previous research by emphasizing the importance of shared values, beliefs, schemas, and specific mindsets or orientations in creating an environment supportive of ISVs. In particular, the international aspect of ISVs’ activities adds important complexity and begs the question how regional resource-holder audiences can support ISVs in the first place. Prior studies (e.g. Bresnahan et al., 2001) have shown that support institutions, such as venture capitalists, may be more or less globally oriented, thus supporting businesses with global operations from the get-go. In the case of ISVs, however, a special orientation seems to be critical in guiding resource-holders decision-making when supporting ISVs – we call it a “global citizen” orientation. Similar to the notion of “corporate citizen” (Matten & Crane, 2005), the “global citizen” orientation places business in the context of doing good for the greater society. However, corporate citizenship and corporate social responsibility (CSR) may vary in geographical focus of social engagements – from local to global (Husted, Jamali, & Saffar, 2016). The “global citizen” orientation emphasizes the potential role business can play in benefiting communities globally rather than just locally, that is
they place values, beliefs, and cognitive schemas supporting CSR into an international context (Zimmerman & Zeist, 2002). For example, innovation and start-up labs within an ecosystem that team up with foreign aid or UN organizations may align their agendas with a broader global development theme, and thus contribute to the notion that businesses can become ‘global citizens’. The more organizations within an ecosystem subscribe to such an agenda the more they will collectively align start-ups and social ventures to develop a global orientation, or, attract globally oriented social entrepreneurs to work with them rather than other institutions. On top of that, the “global citizen” orientation may act as a common identity shared between resource-holders and resource-seekers within an ecosystem (DiMaggio, 1997). We propose:

*Proposition 2. The more strongly resource holders within a regional ecosystem follow a “global citizen” orientation (rather than just a ‘citizen’ or ‘global’ orientation) the more effectively can such an ecosystem support international social ventures.*

Related to the previous point, our findings suggest that an ecosystem supporting ISVs is likely to attract international development organizations and foundations. We observe such clustering effect for example in the case where D-Lab, an MIT educational center and supportive incubator with a focus on ISVs, attracts grants from international development agencies and foundations, such as USAID, or multinational corporations, such as IBM, to create an international network of social ventures. These transnational players are important resource providers for ISVs and the ecosystem. Often times these transnational players share the “global citizen” orientation of their local alliance partners. Transnational actors provide research grants, grants for supporting organizations, networks that connect ISVs with knowledge, talent, and partnerships on target markets, and much more. In Boston, ISVs mostly derive resources from non-traditional sources of funding, such as fellowships, competitions, grants provided by actors with “global citizen” orientation, such as universities, foundations and international venture capital. Our findings
thereby suggest that for an ecosystem supporting ISVs it is critical to compensate for the potential lack of regular funding, e.g. bank loans, through international funding coming from development and other institutions with ‘global citizen’ orientation (see also Galic & Mosakowski, 2016). We propose:

**Proposition 3.** The more strongly resource-holders within a regional ecosystem are interlinked with transnational actors that provide social and development funding the more effectively can such an ecosystem support international social ventures.

We identified that resource-holders, whether local or transnational, do not typically have shared understandings of “what” the impact is. This finding is consistent with previous thinking that social entrepreneurs “are the sense makers who define and pursue opportunities to improve social wealth without a mandate from stakeholders” (Zahra & Wright, 2016: p 611). Yet, we also find that even though resource-holders are opportunity indifferent in terms of impact provided, their decisions are guided by a shared understanding of “how” impact should be generated. Specifically, the principles of “providing impact with innovation” and “providing impact with economic feasibility” seem important. In other words, expectations around the social dimension of ISVs are linked to innovation and feasibility as part of the business model of ISVs. Social impact is thus seen as part of a business model configuration that includes innovation and feasibility, both of which co-determine how the ISVs can generate impact in the future. As these principles get adopted and shared by various resource-holders and support organizations, including universities, incubators and accelerators, they help direct and align business models of ISVs in a coherent way, and help out-select those business models that either do not promise social impact, or do so without considering innovation or feasibility. We propose:

**Proposition 4.** The more strongly resource-holders within a regional ecosystem link social objectives with principles of “innovation” and “feasibility” in decision-making the more effectively can such an ecosystem support international social ventures.
Finally, we find that individual connections of universities, especially through students and professors, with developing countries can be crucial not only in developing and sharing a “global citizen” orientation within an ecosystem and in attracting individuals sharing the same values, but in directly supporting the launch of ISVs. Prior studies have shown that individuals who are exposed to social problems are more likely to address these problems through entrepreneurial activity (Lee & Battilana, 2013). Also, individual connections with certain social and market contexts can help establish network ties and resource flows supporting new ventures (Elfring & Hulsink, 2007). Diaspora networks thereby play a critical role (Drori et al., 2009, Portes, Guarnizo, & Haller, 2002). Local institutions within ecosystems, such as universities, can thus become important institutional anchors or hubs for such networks (see also Powell, White, Koput, & Owen-Smith, 2005). This is because they do not only attract students and professionals with their own individual network connections, but also help build and institutionalize networks with added resource potential, including alumni networks. We find that these networks provide a critical early connection of ISV-entrepreneurs to knowledge, talent, and partnerships in target markets. We propose:

**Proposition 5a.** The more universities and other institutions within a regional ecosystem can attract students with experience in developing and least developed counties the more effectively can such an ecosystem support international social ventures.

**Proposition 5b.** The more universities and other institutions within a regional ecosystem are able to establish individual networks reaching into developing and least developed counties the more effectively can such an ecosystem support international social ventures.

Our study suggests several important implications for future research. First, prior literature on the social role of entrepreneurship provides important view on social role of entrepreneurial
ecosystems (Zahra & Wright, 2016). We add to this perspective by exploring the ways an entrepreneurial ecosystem supports ISVs and conditions required for this support to be effective. Our study also adds to the literature on BOP markets by uncovering key enablers for creation and developing ISVs that target issues in developing and least developed countries. We thereby extend prior BOP research that has focused often on BOP strategies of MNEs (Kolk et al., 2014), while somewhat neglecting the importance of start-ups in tackling issues of poverty at a transnational level (Polak & Warwick, 2014).

Our study also has some limitations. First, in this study, we focus only on the Boston entrepreneurial ecosystem. However, ISVs exist as a distinct population of entrepreneurship not only in Boston, but also in other entrepreneurial ecosystems, such as San Francisco, New York, Atlanta, and London. Comparing the ways various entrepreneurial ecosystems operate and support ISVs in various core sectors (clean tech, biotech, IT, fintech) would allow revealing other enabling conditions and also refining findings from the Boston ecosystem. Second, we analyzed only conditions of support on the level of an entrepreneurial ecosystem of origin. However, in developing countries, ISVs may also operate in entrepreneur-fertile environments, which provides additional support. By adding host ecosystem(s) into analysis, we can understand the ways entrepreneurial ecosystems support ISVs in a more holistic way.

In conclusion, we have provided a novel perspective on conditions than enable entrepreneurial activity focused on addressing social and developmental challenges. Based on the example of the highly developed entrepreneurial ecosystem in Boston, we demonstrated the importance of resource-holders’ shared orientations, international research networks of universities and NGOs, and interlinks with transnational foundations and international development organizations for creating ventures that target social opportunities in the
international domain. In this case, creating environments supportive of ISV-entrepreneurs in developed countries can be an important step to promote and catalyze innovation, economic development, and social change in the developing and least developed countries.

REFERENCES.
Easterly, W.R. 2006. *The white man's burden: why the West's efforts to aid the rest have done so much ill and so little good*. Penguin.


Foundation Center. 2017. *Foundation Center Grant making database.* http://foundationcenter.org (last access October 20, 2017)


Tables and Figures

Table 1. Overview of interviewees.

<table>
<thead>
<tr>
<th>#</th>
<th>Interviewee</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Co-Founder</td>
<td>Start-up that provides low bandwidth or low data video courses to students on emerging markets</td>
</tr>
<tr>
<td>2</td>
<td>Investment Manager</td>
<td>Non-profit accelerator for social start-ups</td>
</tr>
<tr>
<td>3</td>
<td>Program Manager</td>
<td>Non-profit accelerator for social start-ups</td>
</tr>
<tr>
<td>4</td>
<td>Curriculum Director</td>
<td>An international start-up that brings high quality curriculum to low-income communities – Kenya, Uganda, Nigeria, Liberia, India</td>
</tr>
<tr>
<td>5</td>
<td>Former Project Manager</td>
<td>A non-profit enterprise that creates low-cost, easy-to-use, point-of-care diagnostic devices designed specifically for the developing world</td>
</tr>
<tr>
<td>6</td>
<td>Co-Founder</td>
<td>Start-up that provides an affordable plug and play solution for remote data collection</td>
</tr>
<tr>
<td>7</td>
<td>Instructor</td>
<td>MIT Center that works with people around the world to develop and advance collaborative approaches and practical solutions to global poverty challenges.</td>
</tr>
<tr>
<td>8</td>
<td>Research Scientist</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Expert</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Expert</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Program Associate</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Operating Partner</td>
<td>Education focused business incubator</td>
</tr>
<tr>
<td>13</td>
<td>Manager of Social Ventures Supportive Center</td>
<td>Annual innovation, service, and social entrepreneurship competition</td>
</tr>
<tr>
<td>14</td>
<td>Consultant</td>
<td>A program supported by USAID, SIDA, BMZ, Duke Energy, and OPIC that aims to support the development and deployment of clean energy innovations that increase agriculture productivity and stimulate low carbon economic growth in the agriculture sector of developing countries to help end extreme poverty and extreme hunger.</td>
</tr>
<tr>
<td>15</td>
<td>Fellowship Manager</td>
<td>A community hub for students, alumni and faculty who seek to accelerate social and economic progress through innovation-driven entrepreneurship.</td>
</tr>
<tr>
<td>16</td>
<td>Founder</td>
<td>Social venture that develops low-cost eco-friendly water purifier.</td>
</tr>
<tr>
<td>17</td>
<td>Expert</td>
<td>An interdisciplinary research lab focused on technology and poverty issues</td>
</tr>
<tr>
<td>18</td>
<td>Co-Founder</td>
<td>Sanitation startup for slums</td>
</tr>
<tr>
<td>19</td>
<td>Co-Founder</td>
<td>Non-profit providing open-sourced games for children in Africa</td>
</tr>
<tr>
<td>20</td>
<td>Co-Founder</td>
<td>A startup that revolutionizes hiring in emerging markets</td>
</tr>
<tr>
<td>21</td>
<td>Co-Founder</td>
<td>Supply chain in healthcare startup in India and Africa</td>
</tr>
<tr>
<td>22</td>
<td>CEO</td>
<td>Telecommunication and software firm for U.S., Uganda, and India</td>
</tr>
<tr>
<td>23</td>
<td>Co-Founder</td>
<td>Social venture to eradicate poverty by promoting sustainable technologies in rural India</td>
</tr>
</tbody>
</table>