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A resource-based view on the role of universities in supportive ecosystems for social entrepreneurs

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Abstract

This paper investigates the role that universities play in supporting social entrepreneurs (SEs) across their ecosystem. Adopting the resource-based view (RBV) approach, we argue that universities attract, mobilize, and deploy multiple resources that benefit SEs through four main mechanisms (i.e., teaching, research, outreach, and the development of partnerships). We use a qualitative approach of 62 semi-structured interviews and 8 focus groups in Ecuador, Bolivia, and Colombia. Our contribution shows that employing different resources and engaging in supportive activities of universities towards SEs facilitate the development of university capabilities, such as an increased reputation, development of leadership skills for students and staff, and wider access to ecosystem resources that support other university activities related to teaching, research, and community outreach. The role that partnerships play in the development of these capabilities is fundamental, thanks to the different strategic alliances and mobilization of resources between universities and other actors while supporting SEs. This study contributes to our understanding of the role universities can play to intensify the nature of supportive ecosystems for SEs. This contribution is relevant not only to academics but also to practitioners, as this will shed light

on the building, development, and scaling of a supportive ecosystem for SEs.

1 | INTRODUCTION

The environment in which social entrepreneurs (SEs) operate is often complex, as they are confronted with several hardships that hinder their potential to create impact (Autio et al., 2014). The lack of financial and operational resources, scarce human capital, and limited access to support networks, among other challenges, need to be effectively resolved before SEs can realize their desire for positive social and environmental impact (Montgomery et al., 2012). Embedding SEs in supportive ecosystems is thus an adequate strategy to strengthen their success (Roundy, 2014).

Supportive ecosystems are composed of different actors with complementary resources, and their participation in the ecosystem is beneficial for everyone involved (Autio et al., 2014; Roundy et al., 2017). SEs can benefit from different types of support within an ecosystem, including access to financial and human capital, access to resources, knowledge, information, and networks (Ben Letaifa & Reynoso, 2015; Biggeri et al., 2017; Goyal et al., 2016). Universities are highlighted as key actors in supportive ecosystems (Sánchez-Barrioluengo & Benneworth, 2019). The role of universities in supporting SEs is easily related to multiple university resources, including specialized knowledge, information, extended university networks, and university infrastructure (Lekhanya, 2016). Moreover, universities could be seen as intermediaries between SEs and students, researchers, university staff, alumni, and their well-established contacts within the industry, non-governmental organizations (NGOs), and governments. However, the role of universities in the supportive ecosystem for SEs remains an under-researched phenomenon (Thomsen et al., 2018). This void in the literature is highlighted by a recent Special Issue call on "The role of universities in supporting social innovation" by Hazenberg et al. (2020) in the *Social Enterprise Journal*.

Hence, this paper studies the role of universities in the supportive ecosystem for SEs through a resource-based view (RBV) lens (Barney, 1991). We argue that universities attract, mobilize and deploy multiple resources that benefit SEs through three main support mechanisms (education, engagement of community actors, and development of partnerships). To formulate our arguments, we adopt a qualitative research approach with 62 semi-structured interviews and 8 focus groups in Ecuador, Bolivia, and Colombia.

The paper is structured as follows. First, we introduce the RBV theory, expanding on the foundations of the RBV theoretical framework, including the resources, capabilities, sustained competitive advantage, and partnerships. In this literature section, we also elaborate on how ecosystems support SEs. Secondly, we elaborate on the methodology, including an overview of the interviews, the interview protocol, and data analysis. Thirdly, we present the results of our data analysis, presenting how the organizational, human, and physical resources in combination with university activities support SEs. Fourthly, we discuss the implications, conclusions, and discussion of the paper.

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2 | AN RBV PERSPECTIVE

This paper adopts the RBV approach (Barney, 1991, 2016b) as a theoretical lens to underpin the role of university resources and capabilities in supporting SEs in the ecosystem. The framework offered by the RBV helps us to understand how the different resources and capabilities are used to strengthen the competitive advantage of firms (Grant, 1991; Mathews, 2002). Hence, it is a valuable theoretical lens that allows us to investigate how universities can mobilize resources within the context of supportive ecosystems. The RBV has a number of fundamentals, which we will discuss in the following lines: resources, capabilities, competitive advantage, and partnerships (Barney, 1991, 2016b). We elaborate on these and explain their importance for our arguments in this paper.

2.1 | Resources

The first element of the RBV approach corresponds to the resources of the firm. Resources can be classified as tangible assets and intangible assets. Tangible assets refer to all physical aspects, which, for universities, can be buildings and laboratories, equipment, tools, books, and software (Miller & Acs, 2017; Teece, 1997, 2007). Intangible assets are nonphysical resources owned by the firm. Knowledge is an important intangible asset in universities (Guerrero & Urbano, 2010; Klofsten et al., 2019). Knowledge in universities is present via several intangible assets, such as publications, intellectual property, patents, and inventions (Guerrero & Urbano, 2010, 2016).

The second assumption in terms of resources in the RBV is that resources are heterogeneous and immobile. This means that resources are heterogeneously distributed, referring to the uniqueness of resources (Barney, 1991). This means that the resources, in one firm, should be different from others. In this context, incubators, for example, support SEs to identify available resources through mentors, the training program, different events, and an extended network of contacts (Bruneel et al., 2012; Roberts, 2011) The second resource characteristic, according to RBV, refers to immobility. Immobility means that resources are not transferred from one firm to another easily. As a general assumption, resource heterogeneity and immobility enable firms to create value thanks to isolating mechanisms (Grant, 1991).

2.2 | Capabilities

Capabilities refer to the ability of a firm to perform a particular task, function, or activity (Grant, 1991). Capabilities are based on the capacity of people to deploy organizational resources, processes, knowledge, information, and know-how (Man et al., 2002; Teece, 1997). Knowledge transfer is an important capability of universities (Teece, 1997; Uzzi & Gillespie, 2002). Through knowledge transfer and different activities (e.g., teaching and research and collaboration with industry), universities can support SEs to further develop their own capabilities (Heaton et al., 2019).

2.3 | Partnerships

Collaboration among organizations increases the possibilities to access different resources, enhancing the sustained competitive advantage of the firm (Lavie, 2006). Collaborations among

organizations emerge from synergies that different partners identify, based on the complementarities of resources and the potential transfers of such resources across partners (Al-Laham & Souitaris, 2008; Guimón, 2013). The alliances that organizations built are based on different underlying mechanisms, including the experience of partners, governance, interdependence, and balanced contributions (Larson, 1991).

The development of partnerships by universities facilitates access to different resources, including the specialized knowledge that is available at other universities or across other organizations across the ecosystem (Martinelli et al., 2008). Collaboration between universities and other ecosystem actors facilitates the exchange of specific resources but also in the support that universities can offer to industry and society, for example in the process of transferring knowledge to society (Good et al., 2019; O'Kane et al., 2020). Therefore, universities play a key role in the entrepreneurial ecosystem, due to their privileged position at the intersection between education, research, and the transfer of knowledge (Audretsch et al., 2019: Diaz Gonzalez & Dentchev, 2020).

3 | ECOSYSTEMS IN SUPPORT OF SEs

Due to the interconnectivity between multiple actors, ecosystems can support SEs to overcome the various challenges they face (Adner & Kapoor, 2016; Ben Letaifa & Reynoso, 2015; Pratono & Sutanti, 2016; Spigel & Harrison, 2018). Spigel (2017, p. 49) defines ecosystems as "the union of localised cultural outlooks, social networks, investment capital, universities, and active economic policies that create environments supportive of innovation-based ventures." It is not surprising that universities are prominently mentioned in the ecosystems literature.

The supportive role that universities have in the ecosystem for SEs is mainly due to their neutral position and natural interconnectedness with other relevant actors (Diaz Gonzalez, Dentchev, et al., 2020; Guerrero et al., 2016). Moreover, the relevant literature elaborates on how universities engage in the resolution of complex social and environmental issues by using the support and involvement of their students, faculty, and staff. We refer here to different curricular and extracurricular activities, where students, university faculty, and staff work with local community groups to resolve real social challenges (Jones et al., 2010). This engagement is called Community Service Learning (Furco, 1996), whereby students are confronted with the needs of communities, which allows them to reflect upon and resolve the rather challenging social issues that they face.

Therefore, we can argue that university involvement with communities constitutes a favorable environment to support SEs, not only because of the interactions and specialized knowledge but also thanks to the universities' numerous collaborations with corporations, multinational companies, public intuitions, governments, NGOs, and international organizations (Dentchev, Eiselein, et al., 2020; Wakkee et al., 2019). However, the specific role of universities in the supportive ecosystems for SEs remains fairly underexplored.

4 | METHODOLOGY

The ambition of this study is to study the role of universities within the ecosystems in support of SEs. We provide an in-depth analysis of the different resources and support mechanisms universities have to provide such support. To be able to provide such an analysis, we have adopted

a qualitative research approach (Eisenhardt, 1989). This approach is recommended when studying a poorly understood phenomenon (Yin, 2015).

4.1 | Research setting

We choose Bolivia, Ecuador, and Colombia for this study because these countries offered the possibility to study different types of universities operating in ecosystems with different degrees of development and activities. The definition of SEs in these Latin American countries is broad. The majority of SEs are found at the base of the pyramid, with informal businesses, living in vulnerable and poor conditions (Giovannini & Davidson-Hunt, 2012).

Using locally available resources, SEs in the region are focused on improving the local living conditions of communities and their unmet needs (Defourny et al., 2021). They prefer to work in collectives, and they are often affiliated with worker cooperatives (artisans, transports, peasants), which enable them to share working capital and other resources, increase legitimacy avoid bureaucracy, and distribute equitably the work and earnings (Gaiger et al., 2019).

4.2 | Data sampling and collection

Our data collection took place in Bolivia and Ecuador during non-consecutive periods in 2017 and 2018 and was finalized in Colombia in 2019. Our data sampling and collection procedure were designed in collaboration with 9 senior local academics from the *Universidad Católica Boliviana* (in Bolivia) and the *Escuela Superior Politecnica del Litoral ESPOL* (in Ecuador). They helped us in the design process of the two interview protocols and the selection of respondents due to their local knowledge and contacts.

Our respondents comprise a wide variety of actors from university internal stakeholders (faculty and staff) as well as other ecosystem actors such as SEs, financial organizations, cooperatives and local associations, incubators and coworking spaces, NGOs, government officials, networking organizations, owners of SMEs, and the media. The majority of SEs that participated in this study had a relationship with the local universities that supported us locally in Bolivia, Ecuador, and Colombia. This means that some of them were currently studying at these universities. Some others had previously participated in events, incubation programs, or projects dedicated to supporting entrepreneurship. Such a variety of respondents is due to our primary intention to understand the university as an ecosystem actor and how universities can leverage, through their ecosystem interaction, to enrich their core activities of teaching, research, and outreach. We have used snowballing sampling (Miles & Huberman, 1994) and contacted other local people that were pointed out by the respondents but were not initially identified by the panel of experts. An overview of our respondents is found in Appendix A.

Our interview process was held using 2 specific interview protocols (one for SEs and another one for the rest actors for the ecosystem actors). To guarantee the construct validity of this part of the research, these interview protocols were validated by our panel of experts. The interview protocols included questions related to the business models of SEs, their interaction with their local ecosystem, support needs and specific challenges, and on the activities, resources, and programs of universities to support social entrepreneurship, and the different activities universities developed to support SEs with local ecosystem actors. Appendix B presents an overview of the interview protocol used for this first part of the study.

The second step in our data collection process was conducted in Colombia in 2019. This was done in a need to validate the collected data of the first part conducted in Bolivia and Ecuador. Colombia was an interesting setting for this phase of the study, due to the possibility to study universities with more experience, quality, and trajectory than those observed in Bolivia and Ecuador. During this phase, we focused our research exclusively on the role of universities in supporting social entrepreneurship (students, professors, entrepreneurs, management staff) and on how could universities intensify the resources in support of SEs. For this part of the study, we employed a third interview protocol, which included more specific questions related to ecosystem resources and the role of universities in supporting SE, which helped us to corroborate further insights on the first phase of the study (from Bolivia and Ecuador) and more deeply look into specific details related to the interaction of universities and other actors in the supportive ecosystem for SEs.

As a result, we have collected 62 semi-structured interviews: 21 semi-structured interviews and 3 focus groups in 6 cities in Bolivia, 21 semi-structured interviews and 2 focus groups in 1 city in Ecuador, and 20 Semi-structured interviews and 3 focus groups in 2 cities of Colombia. The complete list of interviews, including the profile of the participants, can be found in Appendix A. In addition to the interviews, our data were collected with different focus groups, organized in parallel with the interviews. We have moderated the discussion of these focus groups using the same questions from our interview protocols, depending on the type of participants in each section. As a measure of reliability, each interview and focus group discussion was recorded and transcribed (Brink, 1993). The overview of the 8 focus groups (3 in Bolivia, 2 in Ecuador, and 3 in Colombia) is also found in Appendix A. The interviews lasted, on average, 51 min, ranging from 19 to 156 min, while focus group discussions took, on average, 106 min, ranging from 60 to 240 min. Focus group discussion involved between 4 and 18 participants each. For each interview and focus group section, we informed all participants about the purpose of the session to increase the reliability of our study (Brink, 1993).

4.3 | Data analysis

We followed Yin (2015) qualitative data analysis approach including the compiling, disassembling, and reassembling of the data. During the first step, we compiled and classified the interview information in a database and organized them according to the type of stakeholder, starting from internal stakeholders at universities (students, professors, staff), and other ecosystem stakeholders. Such classification was useful when developing the different categories of our coding strategy (Braun et al., 2018).

The second step consisted of the data dissembling, where we reviewed each transcript to be able to extract free quotes relevant to our study. Relevant quotes related to the university's support towards SEs were extracted initially in Spanish by the first author of this paper, whose mother tongue is Spanish. All relevant quotes were translated into English based on free translation. To be able to analyze the information obtained from these quotes and develop our first level of coding, we used the principles of the RBV, which were useful in classifying the general types of resources available in organizations (i.e., human, organizational, and physical). While reviewing these resources, we also classified the outspoken activities that enabled the availability and exploitation of such resources for the benefit of SEs. This classification emerged from the Triple and Quadruple Helix theory (Carayannis & Campbell, 2010), where the main dimensions of universities are highlighted (teaching, research, outreach) and where partnerships were

added as an additional category based on the context and the emerging themes. During the analysis of these open quotes, we identified several patterns related to how universities intensified resources within ecosystems for SEs and how ecosystem actors visualized the university's supportive role within the network. We found that this process was supported by a specific level of resources and university activities.

The third and last step of the analysis consisted of the data reassembling, where we developed our second level of coding. During this step, we have identified, categorized, and grouped the different resources and clustered the university activities (teaching, research, outreach, partnerships) and characterized each of them. To complement this analysis, we have used methodological triangulation (Golafshani, 2003) and combined primary data collection (i.e., interviews and focus group discussions) with participant observation (Eisenhardt & Graebner, 2007) and secondary data. Our secondary data are composed of more than 70 documents, received during interviews or retrieved due to their relevance (i.e., promotional material, company reports, copies of projects, websites, and promotional videos). This triangulation method reduces potential bias and allows the researcher to acquire in-depth knowledge regarding context and enhances the reliability of the results (Baxter & Jack, 2008). This triangulation of information helps to enhance the reliability of the results (Cardo et al., 2006). Our participant observations included attendance at 8 local conferences, public talks, and entrepreneurship fairs. These observations were useful to understand the context of each university, both internally and in the community, and the interaction of the different university stakeholders with SEs and other ecosystem actors. A full overview of the participant observations is found in Appendix C. We provide a detailed coding scheme in Appendix D.

5 | RESULTS

This section presents the different resources (organizational, physical, and human) that universities offer to ecosystems in support of SEs. We also provide an overview of the main support activities that are executed based on different resources. Our results are summarized in Figure 1, giving an overview of the resources and activities that universities use in supporting SEs.

5.1 | Resources

5.1.1 | Organizational resources

Organizational resources refer to formal and specific resources of the organization (Barney, 1991). This includes the planning processes, coordination systems, and informal relationships among the groups of the organization and between the organization and the external environment (Barney, 1991, 2016a).

> The support from the chamber of commerce, in collaboration with the government and universities and their broader network, helps universities to realise many projects. They need each other, because of the human capital, the expertise (from universities) and the business connections and network, of the chamber of commerce. Together, they have developed several events in the city, such as the innovation

FIGURE 1 Universities'resources and activities in supporting SEs

challenges, where students co-create and develop solutions for the city (Director of Social Enterprise, P33).

We found that universities have specific organizational resources devoted to supporting SEs, including formal and informal structures delineated within the organization. As we illustrate in the quote before, among the organizational resources that are relevant to mobilize support to SEs are the university brand and reputation, the involvement with local government, relationship with industrial partners, and other ecosystem actors.

One of our leading experiences in terms of social entrepreneurship is related to a project we have led with the ministry of commerce to empower vulnerable and social entrepreneurs to develop their businesses. We offered technical assistance as

well as a business development workshop. This program triggered the involvement of several parties in our university, as well as allowed us to further increase our capacities to support them (University Director of Entrepreneurship Centre, P23).

In addition, university communication channels and the communication capacity to mobilize internal stakeholders, as well as the organizational culture and the internal awareness, were pivotal to initiate different movements inside the university that attracted and engaged university actors (students and faculty) with SEs, both internally at the universities as well as with community events and initiatives. Through our observations in the different events we attended, we witnessed the capacity of universities to reunite several stakeholders around fairs, roundtables and panels, by using the social media tools, emailing, and in places such as Bolivia, through mobile messaging and groups they have with entrepreneurs and other ecosystem partners.

5.1.2 | Physical resources

These types of resources include all physical assets of the organization, including the buildings and infrastructure, information technologies, and access to raw materials and location (Barney, 1991, 2016a). Support infrastructure varies according to the university, its position, the funding schemes they use, and the different universities' priorities. When universities are eager to support SEs, access to infrastructure benefits SEs as they can leverage classrooms and laboratories, computing facilities, meeting rooms, auditoriums, and spaces for their events and activities, most of the time without paying a fee.

> Support infrastructure is a key aspect form university. For example, we have worked with several start-ups focusing on food processing (such as processing orange peel to develop orange-based infusions). They needed our laboratories and mentorship, and we also helped them to be in contact with local producers, to reduce food waste and re-use the peels that would otherwise be wasted. It was a win-win (Director of University Incubator, P22).

The contribution of entrepreneurship in this dimension of resources is a critical aspect of supporting SEs. These centers develop different resources, often related to developing entrepreneurial capacities and stimulating entrepreneurship among the university community. Entrepreneurship centers also offer support beyond the university context, as they help in articulating with the local entrepreneurial ecosystem and other innovation actors.

> We have supported different social entrepreneurs from different faculties. Recently, we helped to develop an online software to facilitate online teaching for the hearing impaired. This involved software engineering and educational science students and mentors (Senior University Professor, P29).

5.1.3 | Human resources

The contribution of human capital in the support of universities towards SEs is essential to developing organizational capital and exploiting the physical capital such as state-of-the-art

technologies, effective programs, and organizational culture (Roberts, 2011). Thanks to its human capital, several universities have built a successful learning environment with courses matching theory with practical elements (Roberts, 2011).

5.2 | Activities supporting SEs

The contribution of universities to ecosystem actors is evident in different ways, such as providing entrepreneurial education, conducting fundamental research, and offering their facilities and training programs, among other required services for their entrepreneurial communities (Wright et al., 2017). This is due to the involvement of universities' critical masses in teaching, research, and outreach activities and their collaboration with different ecosystem actors (Landry et al., 2007; Roncancio-Marin et al., 2022).

> Universities' greatest asset is human capital. We have people in mostly all areas, highly specialised in their fields. This makes the entrepreneurial-readiness process more effective. For instance, a tech-based start-up, to support pregnant women in rural areas, needs support from engineering, medical sciences and also the psychology department. All these experts are within walking distance from one building to another, and we are using this connection to support student entrepreneurship (Coordinator of University Innovation Center, P47).

Engaging social entrepreneurship at universities can be articulated in different university axes, as proposed by Greene et al. (2010). We found that such engagement can be evidenced at the teaching, research, and outreach level as well as through the different university partnerships. We provide an overview of these activities in the following subsections.

5.2.1 | Teaching

Traditional teaching in the classroom makes it possible to develop specific skills in management, often missed by SEs (Zahra et al., 2009). We argue that teaching activities (courses) contribute to developing several competencies needed by SEs, such as management of financial capital, ability to sell and or market the organization, managing administrative work, building effective teams, the capacity to measure outcomes, managing strategy development, among others (Miller et al., 2012).

> We do not have a specific line of programmes dedicated to social entrepreneurship. However, we incorporate the social entrepreneurship aspect in almost all activities and training, through our philosophy of sustainability, inclusiveness and circular economy (University Director of Social Engagement2, P24).

Professional training provides students with the managerial concepts that are needed for the correct operation of businesses. Some of these skills are related to business planning and operation, including the financial aspect of their venture. Financial resources are one of the most commonly needed resources to create and scale a social business, but being financially illiterate

can restrict SEs secure funding from investors or financial institutions, due to the high risk this might represent.

> Social entrepreneurs mostly need financial resources. But to obtain them, they need technical competencies (such as business planning, project management, accounting) to be able to attract and manage these financial resources (Social Entrepreneur, P36).

> You learn while being a student several business-related aspects. You also learn how to manage your financial resources. But outside the classroom, you have the opportunity to attend different activities and be involved in other university initiatives, such as volunteering. There, you are not obliged to go, but those who decide to attend, are the ones who later on develop several skills on top of their technical knowledge (Coordinator of Community Projects at NGO, P37).

Universities incorporate into most of their curricula of business program courses related to social innovation, social entrepreneurship, and sustainable development (Apostolakis, 2011; Sánchez-Barrioluengo & Benneworth, 2019; Wakkee et al., 2019). Students following these courses have the opportunity to grasp specific concepts and frameworks, often related to the theory of change (Smith & Woodworth, 2012), in terms of creating social transformation and impact.

> From our study design course, we have developed a social lab. This is a compulsory course for final year bachelor students in the architecture programme. We have intervened in several local community projects and their needs vary every year. We have worked on topics related to health, environment, sanitation, housing, etc. Students learn about project planning, design, implementation and evaluation. The social impact is at the core of this activity (P24).

> We do not have a specific line of programmes dedicated to social entrepreneurship. However, we incorporate the social entrepreneurship aspect in almost all activities and training, through our philosophy of sustainability, inclusiveness and circular economy (P28).

These community projects help to connect university students with different initiatives with community partners, including local projects in communities, volunteering work, internships, and other types of projects where both the community and the student exchange knowledge, experience, and build together specific solutions to issues (Bringle & Hatcher, 1996; Brower, 2011).

5.2.2 | Research

The academic research and output (publication of scientific articles, books, conference proceedings) provide theoretical insights for faculty in their field. Students working on social entrepreneurship and social innovation projects have the possibility to collaborate with professors in the development of research projects, using their bachelor papers and master theses, as part of their

research projects. Depending on its quality, faculties work with students to publish their work in scientific journals or books, leveraging their data collection, observations, and papers produced.

> We see more and more the entrepreneurial culture embedded in the curriculum. This is something that 10 years ago was not happening and now we receive more support at the university level to promote it. Based on their work, some students can qualify to publish their master's theses and bachelor's papers in the topics in a series of books that we develop on topics of entrepreneurship, social innovation and ecosystems (University Director of Social Engagement2, P24).

Yusuf (2008) has highlighted the relevant role of universities among the ecosystems, as intermediaries between researchers, organizations, and university spin-offs, and described four knowledge intermediaries: the intermediary that works in relationship with universities to generate and transmit knowledge in general, the specialized mediator that aids with new technologies or specify knowledge for diffusion, financial agents for instance, or an investor who can sponsor. Similarly, Howard and Sharma (2006) assert that universities offer their support to a wide-ranging scope, collaborating with the government, and public and private institutions.

> We support the development of spin-offs with a technological component, and most of them are working on topics that address social issues. Our main goal is to support the development of technologies that aim to transform lives and well-being in our society. And this is where we involved students, entrepreneurs, professors, experts and civil society in a co-creation process (University Researcher, P45).

5.2.3 | Outreach

Students can benefit from different universities' initiatives that bring international knowledge, contacts, and activities to their campuses. This is known as internationalization at home, and such strategies are implemented through curricular and extracurricular activities. Some of these activities are related to the development of local events with international partners, bringing in guest lectures to courses, and co-organizing local roundtables with international peers, among others. Students benefit from these activities, as they can then mirror learning processes, as a benchmark from other countries about best practices and the solution others are implementing in their efforts of resolving local issues.

> Attending conferences or participating in local entrepreneurship contests, develop several competencies in students, such as public speaking, networking, and persuasion, as these are competencies they will need tomorrow to lead their ventures. It is all about leadership and resilience (NGO Coordinator, P40).

The community involvement of universities is well motivated by the triple and quadruple helix theories of innovation. We move our discussion beyond knowledge generation and transfer and argue that this community involvement, including students working across their local communities with different projects, is fundamental to building their competencies, which will, later on, transform their leadership skills and sensitiveness towards social issues.

> Entrepreneurial skills are not only cooked in the classroom. You need to get your hands dirty in order to experience what it means to be -become- an entrepreneur. Thinking, prototyping, piloting, testing, and adjusting, are critical phases, and you need to be out there to experience and learn from them (University Coordinator of Community Engagement, P55).

> Our work has been inspired by the initial work developed with local foundations working with people in very poor conditions. These foundations started to absorb volunteers from the university, to collaborate mainly with psychological support, teaching kids in the street and from there, we saw a huge opportunity to continually be involved in their initiatives (Social Entrepreneur, P35).

Volunteering programs help to bridge university students, professors and staff to work on projects of their choice, using their free time, resources, and will, while supporting specific causes of their choice (Peloza & Hassay, 2006). Students engaging in volunteering activities have multiple intentions, ranging from pure altruism, curriculum development, social pressure, or simply empathy towards the project being served (Batson & Powell, 2003; Morelli et al., 2015). Universities develop volunteering programs based on structural collaboration with communities, organizing targeted initiatives, to guarantee efficiency, reduce waste of resources, and increase the learning outcome for all participants involved. These volunteering structural projects seek to create long-lasting partnerships with communities and to run activities sustainably, despite the amount and the rotation of volunteers.

> Community engagement processes are more bottom-up. We work at the national level with the Volunteering System, a network of multiple volunteer programmes across the country, reuniting efforts, exchanging experiences and creating partnerships to foster the development of local projects using university resources, volunteers and knowledge (Director of Social Enterprise, P32).

Universities are often involved in several local, national, and international projects, often seeking capacity building, transfer of technology or supporting development, and implementation of local programs and initiatives, or simply collecting relevant information about products and services for companies in their local ecosystem.

> The key is to participate in different projects and initiatives. But most importantly it is to be sensitive to these social issues, to then become interested to join efforts from other projects or activities in the city or to even lead one of them. This has an impact both on the university and on the students (University Coordinator of Tech Transfer, P46).

These projects secure funding for the university but also help their staff to be trained in specific competencies, expand their network of contacts, create several interactions with other universities, and allow for benchmarking of best practices and the exchange of knowledge, resources, and information. While this is useful for university professors and staff, it also opens the possibility for students to join the development of several activities (inside and outside the classroom). Most of this project requires data collection, supports with local events for

dissemination and exploitation purposes, and leads to interesting partnerships that can absorb students for specific tasks and activities.

5.2.4 | Partnerships

The engagement of universities in different activities in support of social entrepreneurship outside the traditional curricular activities could contribute to the formation of future SEs by participating in practical action projects and dealing with a particular problem or situation (Smith & Woodworth, 2012). For Volkmann et al. (2009), the promotion of entrepreneurship is a key element for universities in this changing environment, where students solicit for programs that offer entrepreneurial knowledge; those initiatives encourage universities to stay in the same line as external stakeholders who support entrepreneurship (Volkmann et al., 2009).

> There are local programmes to boost entrepreneurship such as "Fondo Emprender", and other calls from Colciencias. These funding opportunities often require the collaboration between researchers, industry and entrepreneurs, to build competitive projects and obtain funding (University Coordinator of International Students, P26).

> University networks are very reliable. We have started to collaborate with the university entrepreneurship centre and we found that, through this collaboration, we go to meet several people that have facilitated us with training, financial opportunities and business development. We have since attended several events and met many people that wouldn't have been otherwise possible for ourselves (Social Entrepreneur, P9).

Similarly, Howard and Sharma (2006) assert that universities offer their support to a wide-ranging of stakeholders, collaborating with the government, and public and private institutions. In this sense, strategic alliances play an important role in opening doors for the development of new programs, accessing wider collaboration with local, national, and international funding and implementing specific initiatives that can involve students and support their competencies development.

> The time has come to rethink the alliances that can be determined through interactions between universities, government and industry, especially in support of social entrepreneurship, without doubt, academia, will play an important role thanks to technology transfer of technology to research at work in teachers and the knowledge that is developed within the classroom (University Professor, P52).

6 | DISCUSSION AND CONCLUDING REMARKS

Social entrepreneurship is a fairly new topic within many universities, and the level of resources dedicated to it is limited or insufficient if we compare them with the necessity for innovative outcomes to meet social issues in society (Roncancio-Marin et al., 2022). Volkmann et al. (2009) argue that the promotion of social entrepreneurship is a key element for universities in this

changing environment, where students demand more programs offering entrepreneurial knowledge that brings value to society.

6.1 | Implications

With this paper, we argue that supporting social entrepreneurship at universities goes beyond traditional entrepreneurial support activities that universities undertake (entrepreneurship courses, business plan development, fairs, events, competitions). We have seen that universities facilitate the support to SEs, based on their critical masses (students, faculty, and staff) and the development of partnerships, creating capacities that span different actors within the ecosystem. The support that universities offer to SEs can help them to intensify the efficiency of their business models, increase their social impact, and boost their competitiveness. This is thanks to the different university resources (i.e., organizational, human, and physical) and the different activities and dynamics that emerge from mobilizing such support.

We believe that one major contribution of this paper is the overview and illustration of the different resources and activities that universities can mobilize to support SEs. Such characterization of resources and activities can help universities' authorities, faculty, and university staff to realize that supporting SEs, on many occasions, can be organized based on the already ongoing university day-to-day activities and leveraging existing resources at hand. This is interesting for universities with a limited amount of resources and infrastructure, as they can start creating a supportive environment for SEs without having to commit large-scale investments, as most of the activities we have discussed often do not imply costs. We are also aware that the mobilization of university resources to SEs requires more top-down interest and bottom-up engagement to empower and engage internal and external stakeholders and their networks.

This paper also contributes to the ongoing debate on what type of efforts are needed internally at universities to become more entrepreneurial while creating social impact at the same time (Guerrero et al., 2021). Traditionally, a university student is educated either to become a company employee or to continue further on in the education sector (Wright et al., 2017). Yet, this conventional frame could change society towards social entrepreneurship and contribute to the development of entrepreneurial students, who receive the necessary tools to develop successful businesses (Wright et al., 2017).

In this line, our interaction with the respondents and the different observations across the ecosystem allowed us to conclude that the different universities' heterogeneous resources mobilized in supporting SEs contribute to the development of universities' capabilities. These capabilities are based on the exploitation of different resources and activities, as well as the development of partnerships across the ecosystem. This process involves actively different university actors beyond only the faculty members of Business Schools and includes the active participation of other university professors and staff (Guerrero & Urbano, 2016; Klofsten et al., 2019). The support that universities offer to SEs also results in further capabilities such as enhanced university reputation, development of leadership competencies for students, faculty and staff, capacity building through project grants, and supporting different CSR initiatives with ecosystem partners (Phillips et al., 2015).

Moreover, teaching activities related to social entrepreneurship offers the possibility to promote more sustainable leadership to move towards entrepreneurial reasoning, performance, and progress in an entrepreneurial society (Audretsch, 2014). The combination of social entrepreneurship education with other extra-curricular activities from the entrepreneurial university

can result in students being more engaged in entrepreneurial thinking through seminars, development of spin-offs, research, competition, and seed money funds for undergraduate projects (Wright et al., 2017).

Our study also contributes to furthering our understanding of how can universities articulate their efforts and resources within local ecosystems to address large challenges of society (George et al., 2016). We have observed three different ecosystems in which universities, despite their level of resources and infrastructure, are engaged in several projects and initiatives aimed at both supporting SEs and contributing to the development of local community projects. In the case of Bolivia and Ecuador, many universities are channeling these efforts through community service learning (CSL) programs, leveraging on their already existing resources courses and curricular activities, and developing partnerships with community projects and local actors. In the case of Colombia, we have observed that these efforts are materialized through active collaboration with the government, industry, and other local ecosystem actors. This way, universities are paving the way to creating important alliances to share complementary resources across the ecosystem, mobilize knowledge, networks and expertise, and lead a local agenda focused on addressing their most challenging local social issues.

6.2 | Limitations and avenues for future research

Our study poses different limitations. One of the most important limitations of this study is related to the generalisability of the findings (Lee & Baskerville, 2003). Our proposed framework with identified resources and activities can be further validated in another research context, with a variety of university profiles and resource availability. We need to test whether more activities or types of resources can be mobilized in supporting SEs or if the proposed categories are correctly describing these interactions.

The qualitative nature of our study is also a limitation. Our findings open different opportunities for testing the relationships among the resources and activities of support and the possible outcomes of it. Do specific resources or activities intensify the support for SEs? Are some activities more important or relevant than others for SEs within the ecosystem? In general, more quantitative studies can help us understand the multiple effects that can exist between the elements of support within the ecosystem.

The motivations for university internal stakeholders (students, faculty, and staff) to be engaged in support activities for SEs remain underexplored. We see different avenues for future quantitative studies to be developed to measure how the motivations or intentions of universities' internal stakeholders affect the intensity of support towards SEs. Future research can be developed to study how the intensity of university support towards SEs varies when different ecosystem actors are involved, with the dedication to specific resources or with formal university structures dedicated to social entrepreneurship.

This study was limited only to qualitative research, and thus, we have seen the further possibility to test and measure the different interactions between main university actors and their influence on the support that they can mobilize and offer to SEs. Therefore, this study revealed some avenues for future research. The last limitation of this study corresponds to the period of data sampling (2017–2019), before the COVID-19 outbreak. A follow-up study can help us better understand whether the circumstances for universities have changed or if the identified categories of resources and activities are applicable to the new reality that many universities face around the world. We acknowledge that many universities have adapted their way of working,

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services, and priorities. We hope that these adaptations did not scarify much of the resources and efforts universities were putting in to support SEs and thus help us to solve our most pressing social issues.

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REFERENCES

Adner, R., & Kapoor, R. (2016). Innovation ecosystems and the pace of substitution: Re-examining technology S-curves. *Strategic Management Journal*, *37*, 625–648. https://doi.org/10.1002/smj.2363

Al-Laham, A., & Souitaris, V. (2008). Network embeddedness and new-venture internationalization: Analyzing international linkages in the German biotech industry. *Journal of Business Venturing*, *23*, 567–586. https://doi.org/10.1016/j.jbusvent.2007.09.001

Apostolakis, C. (2011). The role of higher education in enhancing social entrepreneurship. *International Journal of Social Entrepreneurship and Innovation*, *1*, 124–137. https://doi.org/10.1504/ijsei.2011.043739

Audretsch, D. B. (2014). From the entrepreneurial university to the university for the entrepreneurial society. *The Journal of Technology Transfer*, *39*(3), 313–321. https://doi.org/10.1007/s10961-012-9288-1

Audretsch, D. B., Cunningham, J. A., Kuratko, D. F., Lehmann, E. E., & Menter, M. (2019). Entrepreneurial ecosystems: economic, technological, and societal impacts. *The Journal of technology transfer*, *44*(2), 313–325. https://doi.org/10.1007/s10961-018-9690-4

Autio, E., Kenney, M., Mustar, P., Siegel, D., & Wright, M. (2014). Entrepreneurial innovation: The importance of context. *Research policy*, *43*(7), 1097–1108. https://doi.org/10.1016/j.respol.2014.01.015

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Barney, J. (2016a). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Barney, J. (2016b). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, *27*(6), 643–650. https://doi.org/10.1177/014920630102700602

Batson, C. D., & Powell, A. A. (2003). Altruism and prosocial behavior.

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, *13*, 544–559. https://doi.org/10.2174/1874434600802010058

Ben Letaifa, S., & Reynoso, J. (2015). Toward a service ecosystem perspective at the base of the pyramid. *Journal of Service Management*, *26*, 684–705. https://doi.org/10.1108/JOSM-04-2015-0133

Biggeri, M., Testi, E., & Bellucci, M. (2017). Enabling ecosystems for social enterprises and social innovation: A capability approach perspective. *Journal of Human Development and Capabilities*, *18*, 299–306. https://doi.org/10.1080/19452829.2017.1306690

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2018). Thematic analysis. In P. Liamputtong (Eds.), *Handbook of Research Methods in Health Social Sciences*. Springer. https://doi.org/10.1007/978-981-10-2779-6_103-1

Brink, H. (1993). Validity and reliability in qualitative research. *Curationis*, *16*, 35–38. https://doi.org/10.1007/s12031-011-9669-1

Bringle, R. G., & Hatcher, J. A. (1996). Implementing service learning in higher education. *The Journal of Higher Education*, *67*(2), 221–239. https://doi.org/10.2307/2943981

Brower, H. H. (2011). Sustainable development through service learning: A pedagogical framework and case example in a third world context. *Academy of Management Learning and Education*, *10*, 58–76. https://doi.org/10.5465/AMLE.2011.59513273

Bruneel, J., Ratinho, T., Clarysse, B., & Groen, A. (2012). The evolution of business incubators: Comparing demand and supply of business incubation services across different incubator generations. *Technovation*, *32*(2), 110–121. https://doi.org/10.1016/j.technovation.2011.11.003

Carayannis, E. G., & Campbell, D. F. J. (2010). Triple helix, quadruple helix and quintuple helix and how do knowledge, innovation and the environment relate to each other? *International Journal of Social Ecology and Sustainable Development*, *1*, 41–69. https://doi.org/10.4018/jsesd.2010010105

Cardo, L. F., Coto, E., Mena, L., Ribacoba, R., Lorenzo-Betancor, O., Pastor, P., Samaranch, L. L., Mata, I. F., Díaz, M., Moris, G., Menéndez, M., Corao, A. I., & Alvarez, V. (2006). Validity and reliability in qualitative research. *Curationis*, *47*, 425–430. https://doi.org/10.1007/s12031-011-9669-1

Defourny, J., Nyssens, M., & Brolis, O. (2021). Testing social enterprise models across the world: Evidence from the "International Comparative Social Enterprise Models (ICSEM) project". *Nonprofit and Voluntary Sector Quarterly*, *50*(2), 420–440. https://doi.org/10.1177/0899764020959470

Dentchev, N., Eiselein, P., Vander Velpen, K., Bouckaert, M., & Diaz Gonzalez, A. (2020). *A Financial Guide for Social Entrepreneurs*. Die Keure.

Diaz Gonzalez, A., & Dentchev, N. (2020). Ecosystems in support of social entrepreneurs: A literature review. *Social Enterprise Journal*, *17*(3), 329–360.

Diaz Gonzalez, A., Dentchev, N. A., & Roman Roig, M. d. C. (2020). Beyond intellectual property and rich infrastructure: A community service learning perspective on universities supportive role towards social entrepreneurs. In *Entrepreneurial ecosystems meet innovation systems*. Edward Elgar Publishing.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, *14*, 532–550. https://doi.org/10.5465/AMR.1989.4308385

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of management journal*, *50*(1), 25–32. https://doi.org/10.5465/amj.2007.24160888

Furco, A. (1996). Service-learning: A balanced approach to experiential education.

Gaiger, L. I., Nyssens, M., & Wanderley, F. (Eds.) (2019). *Social enterprise in Latin America: Theory, models and practice*. Routledge. https://doi.org/10.4324/9780429055164

George, G., Howard-Grenville, J., Joshi, A., & Tihanyi, L. (2016). Understanding and tackling societal grand challenges through management research. *Academy of Management Journal*, *59*(6), 1880–1895. https://doi.org/10.5465/amj.2016.4007

Giovannini, M., & Davidson-Hunt, I. J. (2012). Social enterprises for development as buen vivir. *Journal of Enterprising Communities: People and Places in the Global Economy*, *6*(3), 284–299. https://doi.org/10.1108/17506201211258432

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, *8*(4), 597–607.

Good, M., Knockaert, M., & Soppe, B. (2019). A typology of technology transfer ecosystems: How structure affects interactions at the science–market divide. *The Journal of Technology Transfer*, *45*(5), 1405–1431. https://doi.org/10.1007/s10961-019-09745-w

Goyal, S., Sergi, B. S., & Jaiswal, M. P. (2016). Understanding the challenges and strategic actions of social entrepreneurship at base of the pyramid. *Management Decision*, *54*, 418–440. https://doi.org/10.1108/MD-11-2014-0662

Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review*, *33*(3), 114–135. https://doi.org/10.2307/41166664

Greene, P. G., Rice, M. P., & Fetters, M. L. (2010). University-based entrepreneurship ecosystems: framing the discussion. In *The Development of University-Based Entrepreneurship Ecosystems*. Edward Elgar Publishing.

Guerrero, M., & Urbano, D. (2010). The development of an entrepreneurial university. *The Journal of Technology Transfer*, *37*(1), 43–74. https://doi.org/10.1007/s10961-010-9171-x
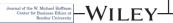
Guerrero, M., & Urbano, D. (2016). The transformative role of universities: determinants, impacts, and challenges. In *Entrepreneurial and Innovative Practices in Public Institutions* (pp. 1–17). Springer.

Guerrero, M., Liñán, F., & Cáceres-Carrasco, F. R. (2021). The influence of ecosystems on the entrepreneurship process: a comparison across developed and developing economies. *Small Business Economics*, *57*(4), 1733–1759. https://doi.org/10.1007/s11187-020-00392-2

Guerrero, M., Urbano, D., Fayolle, A., Klofsten, M., & Mian, S. (2016). Entrepreneurial universities: Emerging models in the new social and economic landscape. *Small Business Economics*, *47*(3), 551–563. https://doi.org/10.1007/s11187-016-9755-4

Guimón, J. (2013). Promoting University-industry collaboration in developing countries. *The Innovation Policy Platform*. The World Bank.

Hazenberg, R., Hodson, J., & Mittelman, R. (2020). The role of universities in supporting social innovation (call for papers special issue). *Social Enterprise Journal*.

Heaton, S., Siegel, D. S., & Teece, D. J. (2019). Universities and innovation ecosystems: A dynamic capabilities perspective. *Industrial and Corporate Change*, *28*(4), 921–939. https://doi.org/10.1093/icc/dtz038

Howard, J., & Sharma, A. (2006). Universities' third mission: Communities engagement. B-Hert Position Paper, 11.

Jones, A. L., Warner, B., & Kiser, P. M. (2010). Social entrepreneurship. *Planning for Higher Education*, *38*(4), 44.

Klofsten, M., Fayolle, A., Guerrero, M., Mian, S., Urbano, D., & Wright, M. (2019). The entrepreneurial university as driver for economic growth and social change—Key strategic challenges. *Technological Forecasting and Social Change*, *141*, 149–158. https://doi.org/10.1016/j.techfore.2018.12.004

Landry, R., Amara, N., & Ouimet, M. (2007). Determinants of knowledge transfer: Evidence from Canadian university researchers in natural sciences and engineering. *Journal of Technology Transfer*, *32*, 561–592. https://doi.org/10.1007/s10961-006-0017-5

Larson, A. (1991). Partner networks: Leveraging external ties to improve entrepreneurial performance. *Journal of Business Venturing*, *6*, 173–188. https://doi.org/10.1016/0883-9026(91)90008-2

Lavie, D. (2006). The competitive advantage of interconnected firms: An extension of the resource-based view. *Academy of Management Review*, *31*(3), 638–658. https://doi.org/10.5465/amr.2006.21318922

Lee, A. S., & Baskerville, R. L. (2003). Generalizing generalizability in information systems research. *Information systems research*, *14*(3), 221–243. https://doi.org/10.1287/isre.14.3.221.16560

Lekhanya, L. M. (2016). The role of universities in promoting social entrepreneurship in South Africa. *Journal of Governance and Regulation*, *4*, 67–71. https://doi.org/10.22495/jgr_v4_i3_p6

Man, T. W. Y., Lau, T., & Chan, K. F. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*, *17*, 123–142. https://doi.org/10.1016/S0883-9026(00)00058-6

Martinelli, A., Meyer, M., & Tunzelmann, N. (2008). Becoming an entrepreneurial university? A case study of knowledge exchange relationships and faculty attitudes in a medium-sized, research-oriented university. *Journal of Technology Transfer*, *33*, 259–283. https://doi.org/10.1007/s10961-007-9031-5

Mathews, J. A. (2002). A resource-based view of Schumpeterian economic dynamics. *Journal of Evolutionary Economics*, *12*(1–2), 29–54. https://doi.org/10.1007/s00191-002-0106-z

Miles, M. B., & Huberman, A. (1994). Qualitative data analysis: An expanded sourcebook.

Miller, D. J., & Acs, Z. J. (2017). The campus as entrepreneurial ecosystem: The University of Chicago. *Small Business Economics*, *49*, 75–95. https://doi.org/10.1007/s11187-017-9868-4

Miller, T. L., Wesley, C. L., & Williams, D. E. (2012). Educating the minds of caring hearts: Comparing the views of practitioners and educators on the importance of social entrepreneurship competencies. *Academy of Management Learning & Education*, *11*(3), 349–370. https://doi.org/10.5465/amle.2011.0017

Montgomery, A. W., Dacin, P. A., & Dacin, M. T. (2012). Collective social entrepreneurship: Collaboratively shaping social Good. *Journal of Business Ethics*, *111*, 375–388. https://doi.org/10.1007/s10551-012-1501-5

Morelli, S. A., Lieberman, M. D., & Zaki, J. (2015). The emerging study of positive empathy. *Social and Personality Psychology Compass*, *9*(2), 57–68. https://doi.org/10.1111/spc3.12157

O'Kane, C., Cunningham, J. A., Menter, M., & Walton, S. (2020). The brokering role of technology transfer offices within entrepreneurial ecosystems: An investigation of macro–meso–micro factors. *The Journal of Technology Transfer.*, *46*, 1814–1844. https://doi.org/10.1007/s10961-020-09829-y

Peloza, J., & Hassay, D. N. (2006). Intra-organizational volunteerism: Good soldiers. *Good Deeds and Good Politics.*, *64*, 357–379. https://doi.org/10.1007/s10551-005-5496-z

Phillips, W., Lee, H., Ghobadian, A., O'Regan, N., & James, P. (2015). Social innovation and social entrepreneurship: A systematic review. *Group & Organization Management*, *40*, 428–461. https://doi.org/10.1177/1059601114560063

Pratono, A. H., & Sutanti, A. (2016). The ecosystem of social enterprise: Social culture, legal framework, and policy review in Indonesia. *Pacific Science Review B: Humanities and Social Sciences*, *2*(3), 106–112. https://doi.org/10.1016/j.psrb.2016.09.020

Roberts, E. B. (2011). Entrepreneurial impact: The role of MIT. *Foundations and Trends® in Entrepreneurship*, *7*, 1–149. https://doi.org/10.1561/0300000030

Roncancio-Marin, J., Dentchev, N., Guerrero, M., Diaz Gonzalez, A., & Crispeels, T. (2022). University-industry joint undertakings with high societal impact: A micro-processes approach. *Technological Forecasting and Social Change*, *174*, 121–223. https://doi.org/10.1016/j.techfore.2021.121223

Roundy, P. T. (2014). Doing good by telling stories: Emotion in social entrepreneurship communication. *Journal of Small Business Strategy*, *24*, 41–68.

Roundy, P. T., Brockman, B. K., & Bradshaw, M. (2017). The resilience of entrepreneurial ecosystems. *Journal of Business Venturing Insights*, *8*, 99–104. https://doi.org/10.1016/j.jbvi.2017.08.002

Smith, I. H., & Woodworth, W. P. (2012). Developing social entrepreneurs and social innovators: A social identity. *Academy of Management Learning & Education*, *11*, 390–407. https://doi.org/10.5465/amle.2011.0016

Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship: Theory and Practice*, *41*, 49–72. https://doi.org/10.1111/etap.12167

Spigel, B., & Harrison, R. (2018). Toward a process theory of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal*, *12*(1), 151–168. https://doi.org/10.1002/sej.1268

Sánchez-Barrioluengo, M., & Benneworth, P. (2019). Is the entrepreneurial university also regionally engaged? Analysing the influence of university's structural configuration on third mission performance. *Technological Forecasting and Social Change*, *141*, 206–218. https://doi.org/10.1016/J.TECHFORE.2018.10.017

Teece, D. J. (1997). Dynamic capabilites and strategic. *Management*, *18*, 509–533. https://doi.org/10.1002/(Sici)1097-0266(199708)18:7<509::Aid-Smj882>3.0.Co;2-Z

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, *28*(13), 1319–1350. https://doi.org/10.1002/smj.640

Thomsen, B., Muurlink, O., & Best, T. (2018). The political ecology of university-based social entrepreneurship ecosystems. *Journal of Enterprising Communities: People and Places in the Global Economy*, *12*(2), 199–219. https://doi.org/10.1108/jec-08-2017-0068

Uzzi, B., & Gillespie, J. J. (2002). Knowledge spillover in corporate financing networks: Embeddedness and the firm's debt performance. *Strategic Management Journal*, *23*, 595–618. https://doi.org/10.1002/smj.241

Volkmann, C. K., & Tokarski, K. O. (2009). Student Attitudes to Entrepreneurship. *Management & Marketing*, *4*(1).

Wakkee, I., van der Sijde, P., Vaupell, C., & Ghuman, K. (2019). The university's role in sustainable development: Activating entrepreneurial scholars as agents of change. *Technological Forecasting and Social Change*, *141*, 195–205. https://doi.org/10.1016/j.techfore.2018.10.013

Wright, M., Siegel, D. S., & Mustar, P. (2017). An emerging ecosystem for student start-ups. *The Journal of Technology Transfer*, *42*(4), 909–922. https://doi.org/10.1007/s10961-017-9558-z

Yin, R. K. (2015). *Qualitative research from start to finish*. Guilford publications.

Yusuf, S. (2008). Intermediating knowledge exchange between universities and businesses. *Research Policy*, *37*(8), 1167–1174. https://doi.org/10.1016/j.respol.2008.04.011

Zahra, S. A., Gedajlovic, E., Neubaum, D. O., & Shulman, J. M. (2009). A typology of social entrepreneurs: Motives, search processes and ethical challenges. *Journal of Business Venturing*, *24*, 519–532. https://doi.org/10.1016/j.jbusvent.2008.04.007

APPENDIX A: PROFILE OF RESPONDENTS

Bolivia		
Data collection	**Domain**	**Participants**
Interviews (21)	University	Junior Professor (Management) (P1)
		Junior Professor (Management) (P2)
		Junior Professor (Management) (P3)
		Senior Professor (Business School) (P4)
	Technical institutions	Academic Director (P5)
		Vocational Trainer (P6)
	Start-up	Social Entrepreneur (P7)
		Social Entrepreneur (P8)
		Social Entrepreneur (P9)
		Social Entrepreneur (P10)
		Social Entrepreneur (P11)
		Social Entrepreneur (P12)
		Social Entrepreneur (P13)
		Social Entrepreneur (P14)
		Social Entrepreneur (P15)
	Retail	Social Entrepreneur (P16)
	Non-profit organizations	Director (P17)
		Manager (P18)
	Incubator	Director (P19)
		Director (P20)
	Bank	Director (P21)
Focus groups (3)	Entrepreneurs Students and graduates	4 participants (FG1)
	Government officials	4 participants (FG2)
	Incubator Coordinators and trainers	10 participants (FG3)

Colombia		
Data collection	**Domain**	**Participants**
Interviews (20)	University	Coordination of university incubator (P22)
		Director Entrepreneurship Centre (P23)
		Director of Social Engagement (P24)
		International Projects Coordinator (P25)
		International Students Coordinator (P26)
		Internationalization Advisor (P27)
		Senior Professor (Architecture) (P28)
		Senior Professor (Architecture) (P29)
		Students Entrepreneur (P30)
		Coordinator of mentorship program (P31)

(Continues)

Colombia		
Data collection	**Domain**	**Participants**
	Social Entrepreneurs	Director (P32)
		Director (P33)
		Social Entrepreneur (P34)
		Social Entrepreneurs (P35)
		Social Entrepreneur (P36)
	Non-profit organizations	Coordinator of community projects (P37)
		Manager (P38)
		Manager (P39)
		Coordinator (40)
	Government (major office)	Coordinator of Entrepreneurship (P41)
	Chamber of commerce	Director of innovation (P42)
Focus groups (3)	University Outreach and entrepreneurship	3 participants (FG5)
	University Students entrepreneurs and junior professors	7 participants (FG6)
	University Voluntary program team	12 participants (FG7)
Ecuador		
Data collection	**Domain**	**Participants**
Interviews (21)	University	Researcher (P43)
		Researcher (P44)
		Researcher (P45)
		Coordinator of Tech Transfer (P46)
		Coordinator of Innovation (P47)
		Professor (P48)
		Professor (P49)
		Professor (P50)
		Professor (P51)
		Professor (P52)
		Professor (P53)Faculty support CSL (P54)
		Coordinator of Community Engagement (P55)Coordinator of Community Service-Learning Program (P56)
	Social enterprise	Coordinator (P57)
		Coordinator (P58)
		Social Entrepreneur (P59)
		Social Entrepreneur (P60)
	Non-profit organizations	Coordinator of community projects (P61)Manager (P62)
Focus groups (2)	University Outreach and entrepreneurship	3 participants (FG5)
	University Students entrepreneurs and junior professors	4 participants (FG6)

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APPENDIX B

B.1 | Interview protocol for social entrepreneurs

Background information

1. Tell me about yourself (studies, family situation [kids, married, siblings] profession, etc.)
2. Can you describe your day-to-day routine?

Business model of the entrepreneur—how does it work?

3. What product/service is being provided?
4. To whom?
5. How many customers have been served?
6. Where are you providing your products/services?
7. What are the major costs of your activity (materials, labor, other)?
8. How is your activity funded?
9. Do you consider yourself an entrepreneur?
10. Is there an entrepreneurial culture in (city name)?

Supportive needs of entrepreneurs

11. What are the main problems of your business activity?
12. What type of support do you need as an entrepreneur (financial, networking, legal, coaching)?
13. What are the organizations or people in your community supporting entrepreneurs like you?
14. Are you part of a network or a group? Can you describe how that works?
15. What is the role of universities in support of entrepreneurs?

B.2 | Interview protocol for organizations supporting social entrepreneurship

Organization profile

1. Can you describe the mission of your organization? (association, NGO, government, training, financing, education, other?)
2. Describe your organization: legal status, years of operation, founders, capital, top management, board of director (if applicable) and other relevant information about the management of the organization.

Relationship with entrepreneurship and the entrepreneurial ecosystem

3. Is there a culture for entrepreneurship in (city)? What is the most relevant activity for entrepreneurs in (city)?
4. What is your relationship with entrepreneurship/entrepreneurs in your city?

5. Policy environment for entrepreneurs:
   a. What is the role of the government in supporting entrepreneurship: programs, needs, or constraints?
   b. What is your perception of the policy environment: ease to create new businesses, taxes, incentives, regulations, grants, other programs?
   c. Are there any other institutions or organizations having an influence on the organization's environment?

6. What are the principal obstacles in the local market for your organization?
7. Do you consider there to be sufficient and qualified human capital to stimulate entrepreneurship/support entrepreneurs? If not, what type of profiles are missing?
8. Infrastructure: what is your perception (electricity, telecommunications—internet, water, gas, and transport)?
9. Can you please describe the business environment for your organization (competitors, supply chain, informal competition, and other relevant aspects)?
10. Support:
    a. What type of support is available to entrepreneurs in the city: networking, training, mentorship, coaching, legal, funding?
    b. Who provides this support?
11. What do you consider is needed further to stimulate entrepreneurship in this city?
12. Who are the relevant entrepreneurs/entrepreneurial organizations in this city?
13. What is the role of universities in support of entrepreneurs?

B.3 | Interview protocol for universities and other ecosystem actors in Colombia

1. Please describe how your work is related to social entrepreneurship?
2. What types of resources do social entrepreneurs mostly need, according to your observations?
3. What are the main actors within the ecosystem supporting social entrepreneurs that can provide the abovementioned resources?
4. In your opinion, what type of the abovementioned resources can universities provide in their support to social entrepreneurs?
5. What are the most relevant activities your university is currently developing to support social entrepreneurs?
6. What is the role of internal stakeholders (students, faculty, and staff) to support social entrepreneurs?
7. Does your university engage a broader network of external stakeholders to support social entrepreneurs?
8. How can the local ecosystem of stakeholders expand, in order to improve the support of social entrepreneurs?
9. Do universities play a central or peripheral role in the local ecosystem in support of social entrepreneurs?
10. What are the limitations for universities to mobilize resources needed by social entrepreneurs?

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APPENDIX C: OBSERVATIONS

Observations in Bolivia	
Entrepreneurship fair "Yo Emprendo" This fair was co-organized by the UCB (Universidad Católica Boliviana), the local municipality and academics from the VLIR UOS P5 Project (development cooperation Belgium - Bolivia) with the objective of promoting (selling, showcasing) products from different entrepreneurs that followed training programs through the incubator and were also supported by the university	Social Entrepreneurs UCB team Local incubator team Team (VUB) October 23, 2018
Student mobility TarijaA group VUB master theses students traveled to Bolivia (group mobility) to conduct research and support vulnerable entrepreneurs. During a week in Tarija, the group of Belgian students was joined by local students from UCB, academics, and local entrepreneurs from the incubator and other technical programs (CAP), to discuss local businesses and explore together individual and collective opportunities to improve their businesses and local entrepreneurial activity.	VUB master theses students (9) VUB PhD students (2) UCB professors (4) Team incubator Tarija (7) Team CAP program (4) Local entrepreneurs Tarija (36) Local students Tarija (60) Dec 3–10, 2018
Round table discussion university—industry cooperation in support of entrepreneurship A round table was organized by the local incubator and the UCB (Universidad Católica Boliviana) to discuss key topics related to local entrepreneurial activity, their challenges and possibilities to strengthen the collaboration across ecosystem.	Academics (4) Team incubator Tarija (6) Entrepreneurs (4) Team CAP (2) April 16, 2019
Institutional visit to Bolivia—development cooperation project with CEUB (Inter University association) A high-delegation visit from Belgium to Bolivia, organized to discuss structural cooperation with public universities in specific topics (relevant for VUB development cooperation) in transversal academic domains, including entrepreneurship	17 local academics (5 cities) to discuss topics on entrepreneurship (Cluster 3) VUB professors VUB Delegation of Authorities April 7–12, 2019
Observations in Colombia	
Lecture and meetings with university officials Participation during Catedra Europa week in Universidad del Norte. Presentation of a lecture on Social Entrepreneurship and several meetings to discuss possibilities of collaboration with university officials at several faculties and university units.	Meetings with university officials (12) Presentation (Nikolay Dentchev) to students (200+ students) March 15 and 16, 2018
Entrepreneurship and Voluntarism University fair A fair organized by Universidad del Norte to present and connect student entrepreneurs and voluntary projects in the city. VUB participated with a booth to promote the VUB Social Entrepreneurship Platform (cf. platform. vubsocialentrepreneurship.com)	70+ entrepreneurs and student organizations participating in the fair Nov 11, 2018

(Continues)

Observations in Colombia	
Booth presenting VUB Platform and socializing this tool to different project leaders in Barranquilla	
Meetings with a university official and coaching to local entrepreneurs	Meeting with university officials (2)
Workshop with students and academics on how to improve support to local entrepreneurs in Universidad del Atlántico. Advise to different projects to be published on the VUB Social Entrepreneurship Platform	Coaching student entrepreneurs and other project leaders (20+) Sept 8, 2019
Social Entrepreneurship Summit	Panel of Rectors:
During the Social Entrepreneurship Summit 2019 in Santa Marta Colombia, two important observations were held during the following activities:	Joachim Hahn (Universidad del Norte) Jose Loaiza (Universidad Católica Boliviana - Sede Tarija)
1) Panel of Rectors "Our support to Social Entrepreneurship" 2) Social Entrepreneurship Fair	Ernesto Galvis (Universidad del Magdalena) For the fair: 20+ entrepreneurs Sept 12 and 13, 2019

APPENDIX D

Coding scheme—university resources in support of SEs

Open coding (quotes)			First level coding Adapted from: Resources of the firm (Barney, 1991)			P. R.	H. R.	O. R.	Second level coding
Type	Code	Open quotes	Profile	Org. type	City				
Interview	P5	Our school offers several resources to students entrepreneurs, so they can reach their full potential. Our programs are designed to go from acquiring specific knowledge to prototype in our labs and test their business idea with potential customers. P5	Academic Director	Technical Institution	Cochabamba				Physical resources - Classroom and laboratories - Entrepreneurship Center/coworking facilities - Computing facilities
Interview	P23	One of our leading experiences in terms of social entrepreneurship is related to a project we have led with the ministry of commerce to empower vulnerable and social entrepreneurs to develop their businesses. We offered technical assistance as well as a business development workshop. This program triggered the involvement of several parties in our university, as well as allowed us to further increase capacities to support them. P23	Director Entrepreneurship Center	University	Barranquilla				- Meeting rooms - Auditoriums and open spaces (fairs and exhibitions)

(Continues)

Open coding (quotes)			First level coding Adapted from: Resources of the firm (Barney, 1991)						Second level coding
Type	Code	Open quotes	Profile	Org. type	City	P. R.	H. R.	O. R.	
Interview	P33	The support from the chamber of commerce, in collaboration with the government and universities and their broader network, help universities to realize many projects. They need each other, because of the human capital, the expertise (from universities) and the business connections and network, of the chamber of commerce. Together, they have developed several events in the city, such as the innovation challenges, where students co-create and develop solutions for the city. P33	Director	Social Enterpreneur	Barranquilla				
Interview	P20	Traditional north-south cooperation has opened several possibilities to exchange best practices and participate in different projects with a social impact. Traditionally, we have received several grants from foundations and international cooperation from The Netherlands, for example. Now, the cooperation is more horizontal, involving partners in international consortiums and this allows both, the exchange of knowledge, resources and best practices through the project. P20	Director	Incubator	La Paz				

Open coding (quotes)			First level coding Adapted from: Resources of the firm (Barney, 1991)						Second level coding
Type	Code	Open quotes	Profile	Org. type	City	P. R.	H. R.	O. R.	
Interview	P61	My main target audience is vulnerable school children in the coastal area of our city through interaction with universities and with other students and volunteers we have been able to expand the scope of our project and manage to bring our message of environmental awareness to many families who live from fishing and who live from tourism and that surely in the future will do so in a more sustainable way and above all taking care of our seas that need us so much. P61	Social Entrepreneur	Social Entrepreneur	Guayaquil				
Focus group	FG5	We consider that our university is a social enterprise since through what we do we are always promoting the support of different people as students in vulnerable conditions, the development of certain activities at the volunteer level and above all the constant support to the different programs that the city identifies and develops in entrepreneurship issues and support for vulnerable entrepreneurs. FG5	3 participants: 1 Vice-rector of outreach and 3 members of Entrepreneurship Center	University	Barranquilla				

				First level coding Adapted from: Resources of the firm (Barney, 1991)							Second level coding
Open coding (quotes)								**P. R.**	**H. R.**	**O. R.**	
Type	**Code**	**Open quotes**		**Profile**	**Org. type**	**City**					
Interview	P8	The business incubator has had a very close relationship with the university and that has allowed us to know the different resources (coworking spaces, laboratories, classrooms) that they have to support entrepreneurship and without doubt, this has benefited us with the opportunity to participate in many events, conferences and programs that the university has to support small entrepreneurs like us. P8		Entrepreneur	Start-Up	Tarija					
Interview	P59	We are how we believe that the social entrepreneurship ecosystem can be strengthened. The University plays a fundamental role in this. They are neutral in our complex political environment because they have different resources at the level of knowledge because they also have many events that can strengthen us and especially to take them by the hand at different moments of the development of the business city. P59		Social Entrepreneur	Social Enterpreneur	Guayaquil					
Interview	P57	We are the first company in the city, and this has led us to mark out many other companies that have a social impact and whose work can be ordinal as other factors of the		Coordinator	Social Enterpreneur	Guayaquil					

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Open coding (quotes)			First level coding Adapted from: Resources of the firm (Barney, 1991)						Second level coding
Type	Code	Open quotes	Profile	Org. type	City	P. R.	H. R.	O. R.	
		ecosystem. The university is undoubtedly a driving force in this project and we collaborate with them through alliances such as the program that we recently launched for the support of social entrepreneurship from the different programs that the University manages. P57							
Focus group	FG6	There are few social entrepreneurs in our city that are being recognized for the work that they carry out, however, we are supporting each other and not competing to be able to carry out the strengthening of an ecosystem that we need so much there we believe that the University an important role for everything that they can contribute through the guidance that they can provide us with the support for the infrastructure that it has through its laboratories but above all through the guidance of its experts on different topics such as project formulation and access to funding. FG6	4 participants: Professors	University	Guayaquil				

(Continues)

Open coding (quotes)			First level coding Adapted from: Resources of the firm (Barney, 1991)						Second level coding
Type	Code	Open quotes	Profile	Org. type	City	P. R.	H. R.	O. R.	
Interview	P39	The entrepreneurial ecosystem is undoubtedly nourished a lot by the universities and all their actors, we from the Foundation have always been in coordination with actors such as the Chamber of Commerce, local government, banks, voluntary associations and of course the university and their support. P39	Manager	NPO	Barranquilla				

Open coding (quotes)			First level coding Adapted from: Resources of the firm (Barney, 1991)			Second level coding
Interview	P29	We have supported different social entrepreneurs from different faculties. Recently, we helped to develop an online software to facilitate online teaching for the hearing impaired. This involved software engineering and educational science students and mentors. P29	Senior Professor (Architecture)	University	Barranquilla	Human resources - Faculty with expertise on SE and knowledge on local issues - Senior staff and board members with interest in SE - Support staff
Interview	P41	The local government the development of social entrepreneurship and its ecosystem is a priority for this and the strategic alliances that can be formulated at the level of collaboration, industry, government and Academia are very important and for this reason, the role of the University will always be fundamental in the consolidation of	Coordinator of Entrepreneurship	Government	Barranquilla	(entrepreneurship lefts, international offices, faculty services, outreach and community services departments) - Students - Volunteers - Alumni

Open coding (quotes)		First level coding Adapted from: Resources of the firm (Barney, 1991)		Second level coding
	our ecosystem we have extensive collaboration platforms at a strategic tactical and operational level that allow us, without a doubt, many factors of the ecosystem will interact with them when we need. P41			- Extended networks of contacts
Interview	P22	Support infrastructure is a key aspect form university. For example, we have worked with several start-ups focusing on food processing (such as processing orange peel to develop orange-based infusions). They needed our laboratories, mentorship, and we also helped them to be in contact with local producers, to reduce food waste and re-use the peels that would otherwise be wasted. It was a win-win. P22	Coordination of university incubator	University	Barranquilla
Focus group	FG2	The main actors of the entrepreneurial ecosystem here in our city is the University who are part of our Board of Directors with whom we always consult different types of programs and who are coordinators of many events and initiatives that we develop of the local government teachers are fundamental actors because they mobilize your students and above all the first technical advice in our activities. FG2	4 participants: 1 General Secretary and 4 members of Management team	Government	Tarija

(Continues)

Open coding (quotes)			First level coding Adapted from: Resources of the firm (Barney, 1991)			Second level coding
Interview	P27	I think social entrepreneurship is a cross-cutting issue in our university and without a doubt, we have many students who are social entrepreneurs and we also have professors who promote this within our institution, we are sure that the activities that we are developing international consortiums the issue will to grow and we will be able to consolidate more alliances at the local, national and international level. The connection with our alumni is also essential. p27	Internationalization Advisor	University	Barranquilla	
Interview	P48	We have different projects in which we are linked to student teachers and other members of the university community with social projects that require our support. This has been developed in a systematic way, identifying social needs, building capacities and above all, generating synergies with the different actors of the ecosystem entrepreneurship and social support that our city has. P48	Professor	University	Guayaquil	
Interview	P34	Our work has been inspired by the initial work developed with local foundations working with people in very poor conditions. These foundations started to absorb volunteers from the university, to collaborate mainly with psychological support, teaching kids in	Entrepreneur	Social		

Open coding (quotes)		First level coding Adapted from: Resources of the firm (Barney, 1991)		Second level coding
	the street and from there, we saw a huge opportunity to continually be involved in their initiatives. P36			
	Entrepreneur	Barranquilla		
Interview	P25			
	One of the main opportunities that we approach social entrepreneurship has been the strategic alliances that our university has developed with other universities abroad through capacity-building projects, this has led us to open a new window of knowledge and technical implementation advice of specific strategies and above all to promote the subject within our university community. P25	International Projects Coordinator	University	Barranquilla
Interview	P17			
	Despite the fact that our organization is not present in the country with the University, we have managed to have access to different communication channels and activities that bring together social entrepreneurs with University professors and alumni, we are working on the consolidation of an ecosystem that allows us to help promote and strengthen social entrepreneurship in the city. P17	Director	NPO	La Paz
Interview	P18			
	The technical support that the professors locally is essential to be able to have access to the different projects and calls that the governments of European countries constantly publish with the	Manager	NPO	Santa Cruz

Open coding (quotes)		First level coding Adapted from: Resources of the firm (Barney, 1991)		Second level coding
	professors, we execute different projects such as the one we have recently worked in communities in San José and this has allowed us to have an important presence to support the entrepreneurs who need us so much. P18			
Interview P38	Our foundation has been in full coordination and contact with the university since through it we have been able to reach and coordinate different alliances with other members of the social entrepreneurship ecosystem in the city, this has allowed us to connect, grow and consolidate ourselves as a foundation and expand our social impact to through the activities we develop. P38	Manager	NPO	Barranquilla
Interview P6	The technical focus of our institution offers the possibility to us to partner up with several organizations around our ecosystem. This is useful not only for our students, but also for us, as they open the possibility to use their facilities (classrooms, auditoriums), and later on to employ our students themselves. P6	Vocational trainer	Technical Institution	Cochabamba
Interview P30	Thanks to the different dependencies of the University such as the Entrepreneurship left, today we can say that we have the support we require for	Students Entrepreneur	University	Barranquilla

Open coding (quotes)		First level coding Adapted from: Resources of the firm (Barney, 1991)		Second level coding
		the development of our business clearings and above all for the strengthening of our idea and future consolidation as a business. P30		
Open coding (quotes)		**First level coding Adapted from: Resources of the firm (Barney, 1991)**		**Second level coding**
Interview	P47	Universities' greatest asset is human capital. We have people in mostly all areas, highly specialized in their fields. This makes the entrepreneurial-readiness process more effective. For instance, a tech-based start-up, to support pregnant women in rural areas, needs support from engineering, medical sciences and also the psychology department. All these experts are within walking distance from one building to another, and we are using this connection to support student entrepreneurship. P47	University	Guayaquil
Focus group	FG7	The issue of Peace is fundamental in Colombia and we see that many social entrepreneurs are working on it. This peace network has allowed us to promote and develop different skills at the level of leadership at the level of socialization and especially cooperation and it is an enterprise that has Born from the university and the university, it has allowed us to develop it, consolidate it and position it in a coherent way within many areas of our city. FG7	12 participants: students members of the voluntary program	University	Barranquilla	Organizational resources - University brand and reputation - Organizational structure with formal recognition to Social Entrepreneurship - Internationalization - Relationship with the government and other local partners
Interview	P44	The experience that I have had with supporting the community project and social bonding of	Researcher	University	Guayaquil

(Continues)

Open coding (quotes)		First level coding Adapted from: Resources of the firm (Barney, 1991)		Second level coding
	our university is undoubtedly quite rewarding because it allows me to bring knowledge from the classroom to communities that they do not need and see how my students can also develop certain specific skills that later greatly influence your life decisions on a personal professional level. P44			- Communication channels/capacity - Organizational culture and interest to support SE - Internal awareness about social entrepreneurship
Interview	P51 During the intervention that our students carry out through community intervention programs, they develop multiple projects, many of which are consolidated in strategies in social enterprises, which is why we feel very convinced that the programs that we are working with the community are laboratories of social innovation. P51	Professor	University	Guayaquil
Interview	P56 Alliances are strategic in the development that we can implement of the programs that we lead. Without a doubt, we cannot develop our work without the determined support of the government and other actors. The entrepreneurship ecosystem in the city is for this reason that we are determined to continue collaborating and strengthening alliances and promoting the construction of an ecosystem to support social entrepreneurship from different perspectives but especially with the support of the University's internal actors. P56	Coordinator of Community Service Learning Program	University	Guayaquil
	FG5	3 participants:	University	Guayaquil

Open coding (quotes)		First level coding Adapted from: Resources of the firm (Barney, 1991)		Second level coding
Focus group		Supporting the processes of technology development and knowledge transfer have always been linked to parts such as exact sciences such as engineering, however, we believe that it is a process that must also be carried out by the social sciences and therefore social entrepreneurship becomes for us is A topic of general interest and importance, we want to further support the interaction of the University with the social entrepreneurship ecosystem and thus strengthen that alliance between the University, the private-public company and the State. FG5	outreach, tech transfer and entrepreneurship	
Interview	P21	Currently, we do not have a direct relationship with the university, however, we are aware that from our bank we could have a greater presence in the activities that the universities develop, such as being able to provide technical advice to students who develop their business models or collaborate with small projects of seed capital so that students in their careers and programs can undertake from an early age and thus achieve greater economic dynamism in our region and country. P21	Director	Bank	Cochabamba
Interview	P12	Universities are sometimes very atomized and are not always ready to collaborate or coordinate as they should with the different actors of entrepreneurship in the city and I	Entrepreneur	Start-Up	La Paz

(Continues)

Open coding (quotes)		First level coding Adapted from: Resources of the firm (Barney, 1991)	Second level coding
		personally think that it has a lot to offer through its students, its professors and all the resources that they as an institution they group and that can serve us a lot in the development of our activities. P12	
Focus group	FG1	We believe that universities can continue to open spaces like the one we have where students can share our ideas as social entrepreneurs and thus be able to motivate other students to join and support us, we are also volunteers and develop different initiatives in the city and Undoubtedly, the university can link more students to more professors and above all use its media to give greater visibility to this type of alliances and programs that are beneficial not only for us but for many other small entrepreneurs around La Paz. FG1	4 participants (entrepreneurs) Entrepreneurial association Voluntary organization La Paz

Resources: P.R. (Physical Resources); H.R. (Human Resources); O.R. (Org. Resource).

Coding scheme—university activities in support of SEs

Open coding (quotes)			First level coding Activities of universities Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).							Second level coding
Type	Code	Open quotes	Profile	Org. type	City	T	R	O	P	
Interview	P36	Social entrepreneurs mostly need financial resources. But to obtain them, they need technical competencies (such as business planning, project management, accounting) to be able to attract and manage these financial resources. P36	Social Entrepreneur	Social Enterpreneur	Barranquilla					Teaching - Formal courses (curricular) - Training programs (seminars, short courses) on SE - Community Service Learning Activities - Guest lectures on SE
Interview	P37	You learn while being a student several business-related aspects. You also learn how to manage your financial resources. But outside the classroom, you have the opportunity to attend different activities and be involved in other university initiatives, such as volunteering. There, you are not obliged to go, but those who decide to attend, are the ones who later on develop several skills on top of their technical knowledge. P37 Social entrepreneurs mostly need financial resources. But to obtain them, they need technical competencies (such as business planning, project management, accounting) to be able to attract and manage these financial resources. P37	Coordinator of Community Projects	NPO	Barranquilla						
Interview	P1	One of the main strengths of universities relies on the accumulated knowledge of professors and researchers. We see more and more interest in	Junior Professor								

(Continues)

Open coding (quotes)			First level coding Activities of universities Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).							Second level coding
Type	Code	Open quotes	Profile	Org. type	City	T	R	O	P	
		developing connections between them and entrepreneurs to boost their competencies and this is something interesting for the field. P1 (Management)	University	La Paz						
Interview	P24	We do not have a specific line of a program dedicated to social entrepreneurship. However, we incorporate the social entrepreneurship aspect in almost all activities and training, through our philosophy of sustainability, inclusiveness and circular economy. P24 From our study design course, we have developed a social lab. This is a compulsory course for final year bachelor students in the architecture programme. We have intervened in several local community projects and their needs vary every year. We have worked on topics related to health, environment, sanitation, housing, etc. Students learn about project planning, design, implementation and evaluation. The social impact is at the core of this activity. P24 Students get motivated when they need to prepare themselves to go outside the university and compete with others. They thrive to excel not only by convincing others about their project but certainly by delivering an impactful presentation. P24	Director of Social Engagement	University	Barranquilla					
Interview	P28	We do not have a specific line of programmes dedicated to social entrepreneurship. However,	Senior Professor	University	Barranquilla					

Open coding (quotes)			First level coding — Activities of universities — Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).							Second level coding
Type	Code	Open quotes	Profile	Org. type	City	T	R	O	P	
		we incorporate the social entrepreneurship aspect in almost all activities and training, through our philosophy of sustainability, inclusiveness and circular economy. P28								
Interview	P62	The National Government prioritizes the development of innovation as the engine of our economy and for this, innovation at a social level plays a very important role in our environment given that our society is faced with different complex problems that is why we do a very important job in sensitizing the industry to multinationals and investors so that they increasingly believe in social entrepreneurship as an engine of development for our country. P62	Coordinator of Community Projects	NPO	Guayaquil					
Interview	P19	Universities have different types of specialized knowledge that will undoubtedly always be attractive to us. Organizations that belong to the local ecosystem are always looking for them thanks to the different alliances we have established and we are sure that we will continue to strengthen for many more years and through the programs we implement. p19	Director	Incubator	Cochabamba					

Open coding (quotes)		First level coding — Activities of universities — Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).			Second level coding
Interview	P4	Despite our full course on social entrepreneurship, we integrate topics related to social innovation and social community development in most of our executive education at the postgraduate level and in the master's program in the business school. This is not only because we want to strengthen the soft skills of our future graduates, but also because we want them to further multiply their knowledge in their companies and walk with them into a more sustainable type of business. P4

We see more and more the entrepreneurial culture embedded in the curriculum. This is something that 10 years ago was not happening and now we receive more support at the university level to promote it. Based on their work, some students can qualify to publish their master theses and bachelor papers in the topics in a series of books that we develop in topics of entrepreneurship, social innovation and ecosystems. P4 | Senior Professor (Business School) | University | La Paz | |
| Interview | P50 | We work on specific activities of research with students, using an ethnographic type of intervention. We observe and study the local activities of social entrepreneurs by interacting with them, living their experiences and understanding their daily life and behaviours. p49 | Professor | University | Guayaquil | Research
- Research projects with local, national and international peers |
| Interview | P45 | Our project of Social Linkage with the community has made it possible to bring different resources from the university to the benefit of the community. Recently, we have been recognized for our experience but we | Researcher | University | Guayaquil | - Development of local reports on SE
- Ethnographic research projects |

Open coding (quotes)		First level coding — Activities of universities — Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).		Second level coding
		have also been able to market different products that have emerged from the area where we work, especially supporting small artisans. and small merchants in the most vulnerable areas with the support of our students and their technical and scientific knowledge and skills. P45		- Master Thesis/ Bachelor Papers on SE
Interview	P54	The work that we carry out as communities in which we obligatorily involve different students from different programs has yielded many results in recent years, especially in strengthening programs that have a social impact on vulnerable communities. We are pleased with the support of the teachers with their dynamism with their capacities and with the technical knowledge that they implement in the search for solutions to the most complex problems of society such as poverty, gender inequality, the lack of drinking water, the issue of education, and health among others. P54	Faculty support CSL — University — Guayaquil	
Interview	P13	I mainly highlighted the different fairs that are frequently organized in our city and in which we participate together with students and other entrepreneurs from universities and thus we can sell our products, meet other entrepreneurs and receive, above all, feedback from different professors and other events visitors. P13	Entrepreneur — Start-Up — Tarija	
Interview	P43	Research capacities at the level of social entrepreneurship in our university are nascent and we are aware that it is a topic and an area that should continue to be strengthened even more for	Researcher — University — Guayaquil	

(Continues)

Table 1

Open coding (quotes)			First level coding — Activities of universities — Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).			Second level coding
		this we find that there are professors interested in coordinating efforts and investigating crucial issues within the field. of social entrepreneurship. P43				
Focus group	FG6	The different events that have been taking place from the University through the Entrepreneurship left and the collaborations that this centre developed with other actors in the city make us feel very satisfied, especially because we as social entrepreneurs sometimes feel unprotected and unidentified Today we can say that we are beginning to see strategic collaborations between the actors of the ecosystem that will lead us to consolidate our ideas and have spaces for collaboration and support as entrepreneurs and above all as agents of social change. FG6	University	Barranquilla	7 participants: 2 Junior professors and 4 students entrepreneurs	

Table 2

Open coding (quotes)			First level coding — Activities of universities — Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).			Second level coding
Interview	P2	In our courses, we provide basic knowledge to students. Their capabilities, knowledge and more importantly their competencies are developed in the field, where they test what they learned. P2	Junior Professor (Management)	University	Batallas	Outreach - Local initiatives (Hackathon, Challenges) on Social Innovation
Interview	P40	Attending conferences or participating in local entrepreneurship contests, develop several competencies in students, such as public speaking, networking, persuasion, as these are competencies they will need tomorrow	Coordinator	NPO	Barranquilla	- Volunteering initiatives - Policy Advocacy - Coaching and mentoring of SEs

Open coding (quotes)		First level coding Activities of universities Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).		Second level coding
		to lead their ventures. It is all about leadership and resilience. P40		
Interview	P32	Community engagement processes are more bottom-up. We work at the national level with the Volunteering System, a network of multiple volunteer programmes across the country, reuniting efforts, exchanging experiences and creating partnerships to foster the development of local projects using university resources, volunteers and knowledge. The infrastructure of universities through classroom and laboratories, meeting rooms and auditorium are a key asset in this process. P40	Director	Social Enterpreneur	Barranquilla
Interview	P35	Our work has been inspired by the initial work developed with local foundations working with people in very poor conditions. These foundations started to absorb volunteers from the university, to collaborate mainly with psychological support, teaching kids in the street and from there, we saw a huge opportunity to continually be involved in their initiatives. P35	Social Entrepreneur	Social Enterpreneur	Barranquilla
Interview	P3	Teaching entrepreneurship is not sufficient. We need to work with the students in different scenarios to allow them to unleash their potential as entrepreneurs. This is not	Junior Professor (Management)	University	La Paz

(Continues)

Open coding (quotes)			First level coding / Activities of universities / Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).			Second level coding
		an easy task and professors often don't know how to do this. P3				
Focus group	FG3	Thinking about the incubator and not thinking about the universities is undoubtedly complex, we collaborate and have many activities and many alliances with universities that allow us to use their large amounts of resources, knowledge, capabilities, facilities, and above all, support in the development and implementation of the programs that our government has in support of entrepreneurship, without a doubt, they are our best ally. FG3	10 participants: 1 Director and 9 members of the Management Team	Incubator	Tarija	
Interview	P16	Small entrepreneurs like us will always be grateful for the support that the university provides to the incubator that is training us, we find that the professors and other university administrators are always ready to work and motivate us in the development of our businesses. P16	Entrepreneur	Retail	Tarija	
Interview	P7	We have benefited from the university support through several activities such as fairs, the interaction with students, and the possibility to attend several events. We go to these activities, or we have the opportunity to sell our products, and sometimes to get feedback on different aspects of our business. P7	Entrepreneur	Start-Up	Tarija	
Interview	P11	On some occasions, I had the opportunity to talk with some university students who	Entrepreneur	Start-Up	Tarija	

Open coding (quotes)		First level coding Activities of universities Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).		Second level coding
	supported me with the development of the application. Currently, he commercialized this conversation with the mare students to learn about an international event in which I was able to present my idea and October a lot of important feedback that I used and that was very useful for my business. P11			
Interview P46	We support the development of spin-offs with a technological component, and most of them are working on topics that address social issues. Our main goal is to support the development of technologies that aim to transform lives and well-being in our society. And this is where we involved students, entrepreneurs, professors, experts and civil society in a co-creation process. P46

The key is to participate in different projects and initiatives. But most importantly it is to be sensitive to these social issues, to then become interested to join efforts from other projects or activities in the city or to even lead one of them. This has an impact both in the university and on the students. P46 | Coordinador of Techtransfer | University | Guayaquil |
| Interview P14 | The sale of the pipeline of the food sector in Bolivia is very difficult, especially because of the permits, we have managed to receive a lot of advice from University professors in the procedures that correspond to the | Entrepreneur | Start-Up | Tarija |

(Continues)

Open coding (quotes)		First level coding — Activities of universities — Triple helix, quadruple helix, and quintuple helix — Carayannis and Campbell (2010).			Second level coding
		technical part of obtaining licenses for our commercialization of products. P14			
Interview	P15	On two occasions we have been selected as finalists in competitions that our incubator has organized with the support of the University, we have also received the visit of experts who have trained us on marketing issues, social networks and brand positioning. p15	Entrepreneur	Start-Up	Tarija
Interview	P55	Entrepreneurial skills are not only cooked in the classroom. You need to get your hands dirty in order to experience what it means to be -become- an entrepreneur. Thinking, prototyping, piloting, testing, adjusting, are critical phases, and you need to be out there to experience and learn from them. P55	Coordinator of Community Engagement	University	Guayaquil
Interview	P63	Investment opportunities at the social level in our country are very limited and that is due more than all to ignorance of the subject, which is why I think that universities play a fundamental role from the beginning of their students in the careers they study but also in the different platforms from where they interact with the government with civil society with businessmen with the media and especially with entrepreneurs who are part of our ecosystem P63	Manager	NPO	Guayaquil	Partnerships - Network coordination to mobilize and get access to resources in support of SE - International Projects and agreements

Open coding (quotes)		First level coding Activities of universities Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).			Second level coding
Interview	P26	University critical mass makes volunteering programmes more efficient, attractive and engaging. We have hundreds of volunteers, and they come with several ideas, proposals and they support and motivate each other. Critical mass is providing a huge knowledge base of experiences and support towards social entrepreneurship. P26 There are local programmes to boost entrepreneurship such as "Fondo Emprender," and other calls from Colciencias. These funding opportunities often require the collaboration between researchers, industry and entrepreneurs, to build competitive projects and obtain funding. P26	International Students Coordinator	University	Barranquilla	- Developing local alliances to support SEs - International Agreements to support the topic
Interview	P60	Many entrepreneurs are always looking for financing, and in particular, I have sought the support of different actors in strengthening the business unit because my product is a fruit that imports from Brazil, it requires a lot of innovation to be able to transform it into more from the raw material to the product produced The juices, the preserves, the cookies and other types of things that I can sell in this I believe that our work has been based on the alliances in the exchange in the participation in many events in the city and in sharing my idea to	Social Entrepreneur	Social Enterpreneur	Guayaquil	

Open coding (quotes)			First level coding Activities of universities Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).		Second level coding
		receive feedback from others, people, constantly. P60			
Interview	P42	From our entity, we have always promoted the coordination of different actors through the ecosystem. We recently launched an Imagine Your City contest where we have the systematic support of different university actors, students, volunteer professors, and above all, many other members of the ecosystem. which makes us feel proud to see how the issue of social entrepreneurship is increasingly positioning our city and creating and fostering alliances that will allow said system to be strengthened or more. P42	Director of Innovation	Chamber of Commerce	Barranquilla
Interview	P31	Through our innovation challenge, we aim at developing an entrepreneurial culture at the university. We collaborate with different local businesses, to boost entrepreneurship, to develop sustainable solutions for their challenges, using creativity and innovation. P31	Coordinator of mentorship program	University	Santa Marta
Interview	P49	Several teachers are aware that sometimes the work that we develop in the area of social entrepreneurship can have possibilities of collaboration between us, I believe that it is an area to improve and without a doubt, we have to look at how to strengthen our relationships with the community in order	Professor	University	Guayaquil

Open coding (quotes)		First level coding **Activities of universities** Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).		Second level coding
	to strengthen this ecosystem of entrepreneurship that needs so much support and that above all requires our support to reach a higher level and greater impact on a social level P49			
Interview	P53	The Ariza University once again from its department of liaison with the community a strategic work that has strengthened our capacities in supporting social entrepreneurship the different projects with vulnerable entrepreneurs have been favoured and above all they have benefited in the strengthening of their capacities thanks to the coordinated intervention of different actors such as students and volunteers in the development of their projects and in the consolidation of their initiatives. p53	Professor	University	Guayaquil
Interview	P58	Without a doubt, the ecosystem of social entrepreneurship is becoming more and more visible with the support of entities such as the investment agency of our country and other actors of private companies, the University, non-governmental actors and entrepreneurs that are becoming more and more visible. and that with our support they can strengthen and scale their business ideas. P58	Coordinator	Social Enterpreneur	Guayaquil

(Continues)

Open coding (quotes)		First level coding Activities of universities Triple helix, quadruple helix, and quintuple helix Carayannis and Campbell (2010).			Second level coding
Interview	P52	The time has come to rethink the alliances that can be determined through interactions between universities, government and industry, especially in support of social entrepreneurship, without doubt, academia, will play an important role thanks to technology transfer of technology to research at work in teachers and the knowledge that is developed within the classroom. P52	Professor	University	Guayaquil
Interview	P9	University networks are very reliable. We have started to collaborate with the university entrepreneurship centre and we found that, through this collaboration, we go to meet several people that have facilitated us with training, financial opportunities and business development. We have since attended several events and met many people that wouldn't have been otherwise possible on our own selves. P9	Entrepreneur	Start-Up	Tarija
Interview	P10	The support that I receive every day from my mentors here in the business incubator has allowed me to have a close accompaniment even through them I have been able to be on different activities that the universities here locally organize to support small entrepreneurs like us. P10	Entrepreneur	Start-Up	Tarija

For the activities: T (Teaching), R (Research), O (Outreach), P (Partnerships).