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THE ROLE OF UNIVERSITIES IN SOCIAL ENTERPRISES' ABILITY TO SCALE: A DYNAMIC CAPABILITIES APPROACH[6]

Social enterprises (SEs) driven by a dual mission to address social and environmental challenges, encounter significant hurdles in accessing funding, human resources and scaling their impact. This study explores the under-researched role of universities in influencing the development of dynamic capabilities (DCs) within SEs. DCs, essential for navigating dynamic contexts, are particularly crucial for social entrepreneurs in resource-scarce environments. The research focuses on the European Latin American Network (ELANET), an international alliance supporting SEs. Quantitative data from social entrepreneurs in low-income contexts reveal that university training and information significantly moderate SEs' ability to implement financial resources, positively impacting their scaling efforts. The novel findings include the identification of key training types that are most effective in enhancing the financial resource implementation capabilities of SEs, demonstrating the moderating role of universities in developing dynamic capabilities and highlighting the direct correlation between tailored university support and improved scalability of SEs. The study emphasizes the specific type of training and information crucial for fostering these positive outcomes, thus guiding universities in what best to offer as training and practitioners in social entrepreneurship in what support they can receive from universities in their efforts to scale their social impact.
Keywords: Universities; social enterprise; support; entrepreneurial ecosystem; dynamic capabilities; scaling
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1. Introduction

Social enterprises (SEs) apply innovative business models in pursuit of their dual mission to solve social and environmental problems, contributing to both the economy and society (Dees, 1998; Zahra et al., 2009). In doing so, they face various significant challenges, most often related to access to funding, attraction and retention of human resources, professional management, networking, scaling social impact, impact measurement, acquiring legitimacy and mission drift (Diaz Gonzalez et al., 2020). Securing the necessary funding is critical for SEs to scale the social impact they can create (Autio et al., 2014; Lall, Park, 2022). Scaling involves the ability of SEs to expand their operations, increase their social and environmental impact, and achieve financial sustainability (Urban, 2015). Entrepreneurial ecosystems (EEs), with their set of interdependent actors and factors governed in such a way to enable productive entrepreneurship, provide mechanisms to help social entrepreneurs attract funding (Stam, 2015; Roundy, 2017). Universities are crucial actors in the supportive ecosystems with their extensive knowledge and extended networks (Guerrero et al., 2023). They do so through the development of dynamic capabilities (DCs) of the social enterprise (Fichter, Tiemann, 2018; Wakkee et al., 2019; Wang et al., 2021). DCs help organizations to sense, align and modify their resources to meet environmental changes (Sunder et al., 2019). DCs are crucial for social entrepreneurs in their dual mission pursuit, especially in a highly dynamic context (Roundy, Fayard, 2019).

The contribution of universities to the development of DCs of social enterprises is quite logical (Dentchev, 2023). However, this contribution and the specific mechanisms through which universities influence the development of dynamic capabilities of social enterprises remain rather under-researched (Rice et al., 2010; Thomsen et al., 2018; Tornatzky, Rideout, 2014). This gap in the literature is especially relevant in developing economies where ecosystem and university resources are scarce (Guerrero & Lira, 2023; Gupta et al., 2020; Wakkee et al., 2019). In addition, the literature on DCs mostly focuses on well-established enterprises and: "The different factors that facilitate the development of DCs in SEs are still in the black box" (Bhardwaj, Srivastava, 2021, p. 2). Roundy & Fayard, (2019, p. 113) further call for more research on the micro-foundations of dynamic capabilities in non-thriving entrepreneurial ecosystems and in particular:

"*If scholars examine the implications of entrepreneurs locating in non-thriving ecosystems, it may generate findings that are more generalisable and applicable to more typical regions… Scholars should begin to identify and tease apart the concrete mechanisms through which EEs and their components influence the activities of ecosystem participants."*

The aim of this study is to identify and analyze how universities can develop dynamic capabilities within SEs, particularly in terms of scaling their operations. This involves understanding the specific types of training and information provided by universities that are most effective in enhancing SEs' financial resource implementation capabilities.

In line with the above, we pose the following Research Questions:

RQ1: How do university training and information influence the development of dynamic capabilities in SEs related to their ability to implement financial resources?

RQ2: How does university training and information university influence the development of dynamic capabilities in SEs related to their ability to scale?

To answer the research questions, we apply the dynamic capabilities approach and collect quantitative data from social entrepreneurs and university representatives from an international alliance – ELANET, the European Latin American Network in support of SEs. We find that in low-income contexts with high uncertainty, the training and information provided by universities have a significant moderating effect on social entrepreneurs' ability to implement financial resources, which in turn positively affects their ability to scale. We highlight the type of training and information needed to reach these positive results.

The results of this study have implications for social entrepreneurs who can gain insights on effective university training and support to help them navigate challenges and scale their impact more efficiently; universities can understand how to tailor their programs to better support SEs, enhancing their role in fostering social entrepreneurship.

This paper is structured in four sections. The first section outlines the theory that can help us understand how universities can support the dynamic capabilities of social entrepreneurs. The second section discusses the quantitative methodology used for this study. Major findings are discussed in the third section, followed by the final section, where conclusions are drawn, and calls are made for future research in the area.

2. Universities as Actors in the Entrepreneurial Ecosystem

The entrepreneurial ecosystem is comprised of a set of interdependent actors and factors governed in such a way as to enable productive entrepreneurship (Stam, 2015). Entrepreneurial ecosystems are characterized by several building blocks that contribute to their functioning. These include access to capital, talent pool, research and development infrastructure, networking and collaboration opportunities, policy support, and cultural attitudes towards entrepreneurship. The presence and coordination of these building blocks are crucial for the growth and sustainability of entrepreneurial ecosystems (Isenberg, 2010). Munificent entrepreneurial ecosystems are a focus of policymakers in order to stimulate entrepreneurship (Zahra, Nambisan, 2012; Stam, 2015; Ratinho et al., 2020). Snihur & Bocken (2022) found a significant increase in papers focusing on the societal impact of business models and ecosystems in addition to the firm unit of analysis.

The growing literature on societal impact and the support of the surrounding ecosystem shows the significance of the topic and moves the attention to the social enterprises and their surrounding safety net. Universities play a vital role within entrepreneurial ecosystems by contributing to knowledge creation, fostering entrepreneurship education, and supporting technology transfer and commercialization (Roncancio-Marin et al., 2022). Their collaboration with industry and the establishment of incubators and accelerators contribute to the vibrancy and growth of social entrepreneurs (Diaz Gonzalez et al., 2020). Partnerships formed by universities facilitate access to different resources, including the specialized financial knowledge that is available at other universities, or across other ecosystem actors (Cunningham et al., 2018; Diaz Gonzalez, Dentchev, 2021).

Kirby (2006) argues that universities support entrepreneurs by means of modern facilities and access to financial resources. Furthermore, Rahman et al. (2016) stress the importance of both business-related information for acquiring knowledge, crucial for making informed decisions; and training which leads to better performance in business through the acquisition of new knowledge, skills and abilities. Thus, 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 and resources (Audretsch et al., 2019; Malecki, 2018; Smith, Woodworth, 2012). Universities can also serve as an important intermediary connecting the entrepreneurial and social entrepreneurial ecosystems (de Bruin et al., 2023).

Siegel & Wright (2015) talk about the key elements of the university facilitating entrepreneurship: incubators/accelerators and science/technology parks, to support technology transfer and entrepreneurship; educational programs; entrepreneurship centres; entrepreneurs on campus to stimulate commercialization and start-up creation; and alumni support. In addition, formalized university support for entrepreneurship typically extends to include the establishment of incubators or accelerators (Jansen et al., 2015; Guerrero, Urbano, Gajón, 2020), creation of entrepreneurial competitions (Bazan et al., 2020; Guindalini, Verreynne, Kastelle, 2021), supporting students in developing their ideas and stimulating interactions between students and entrepreneurs in support of new venture creation and development (Saeed et al., 2015; Wegner et al., 2020). These mechanisms play an important role in building financial management capabilities and providing access to different types of funding for social entrepreneurs.

The roles universities assume in entrepreneurial ecosystems can vary greatly based on the context, level of development and infrastructure (Wagner, Kuckertz, 2009; Fichter, Tiemann, 2018). Some ecosystems are yet in the development stage, where not all components are present or are still not well-functioning (Roundy, Fayard, 2019) which makes training and information support crucial.

2.1. Training Support

Training not only develops the ability of entrepreneurs to conduct their business, but also increases business performance through financial gain (Dhaliwal, 2010). Financial education and financial management play a crucial role in enabling social entrepreneurs to effectively manage and implement financials in order to sustain their ventures (Adomako, Danso, Ofori Damoah, 2016). Universities can be valuable partners for social entrepreneurs in the unique challenges they face related to financial management (Hussain, Salia, Karim, 2018). Financial management refers to the knowledge and skills necessary for understanding and managing financial resources effectively (Utkarsh et al., 2020). For social entrepreneurs, financial management is critical in making informed decisions, budgeting, financial planning, and measuring social impact. It enables them to allocate resources efficiently, assess financial risks, and demonstrate financial accountability to stakeholders (Lall, Park, 2022).

Financial training programs tailored to social entrepreneurs have been shown to enhance their financial management capabilities. These programs cover topics such as financial planning, budgeting, financial reporting, impact measurement, and risk management (Dentchev et al., 2020). Studies have found that increased financial management improves the financial

performance and sustainability of social enterprises (Adomako, Danso, Ofori Damoah, 2016; Okello Candiya Bongomin et al., 2017). Moreover, financial training programs can also enhance social entrepreneurs' ability to engage with investors and access funding opportunities. It enables them to develop financial projections, articulate financial needs and opportunities, and communicate their social impact to potential investors. Social entrepreneurs who possess financial literacy are more likely to attract external funding, secure favourable terms, and navigate the complexities of financial negotiations (Wise, 2013; Tuffour, Amoako, Amartey, 2022).

Training support provided by universities in general is crucial in improving social entrepreneurs' technical job abilities and interpersonal abilities. Instructional aides similar to the real ones used in a social venture help SEs better understand their business and enhance their productivity (Rahman et al., 2016). Apart from training, universities can also be providers of valuable information to social enterprises. This means that even though they themselves cannot always provide specific support, they could provide information as to where this support can be found. By leveraging their extensive resources, expertise, and networks, universities can significantly enhance the capacity of SEs to scale effectively. Universities provide not only essential training and development programs but also a platform for social entrepreneurs to connect with potential investors, mentors, and other stakeholders. This holistic support system is critical for overcoming the barriers to scaling that many SEs face.

2.2 Information Support

Societal development increasingly depends on access to information. In the information age, information and communication are considered fundamental elements for overall development (Müller, Ulrich, 2013). The role of universities in the information age is central to developing social equality and social mobility through advancement in education, training, and earnings potential (Fong, 2009). Information support expands knowledge essential for decision-making (Wu, 2008). Access to information enables entrepreneurs to seize opportunities for ventures, products or product services (Ozgen, Minsky, 2006). The availability and access to information have a significant impact on the success of start-ups (Kristiansen, Furuholt, Wahid, 2003). Access to information has become an essential business resource, for large organizations and small enterprises alike (Julien, Ramangalahy, 2003). Hence information support for social enterprises is very important to their success. Rahman et al. (2016) show that information support is a prerequisite for both the financial and non-financial performance of entrepreneurs. Universities play a pivotal role in supporting social entrepreneurs by providing essential information resources, guidance, and networking opportunities (Thomsen, Muurlink, Best, 2018). This support is instrumental in helping social entrepreneurs navigate the complexities of their ventures, fostering innovation, and amplifying the positive impact of their initiatives. In this context, university information support encompasses a range of services, including access to research insights, mentorship programs, and collaborative platforms that facilitate knowledge exchange and skill development (Fillis, Johannson, Wagner, 2004). Information support in general aids social entrepreneurs in learning about markets and market prices of their products and services, as well as about relevant government regulations. Most importantly, university-provided

information about available technologies and capital sources to support the venture can make a great difference (Rahman et al., 2016).

Lévesque and Stephan (2020) demonstrate that access to comprehensive market information and analytics enables social entrepreneurs to better understand their target audiences and tailor their services accordingly. Saebi, Foss and Linder (2019) discuss how cross-disciplinary partnerships within universities can lead to innovative solutions and enhanced social impact. Additionally, universities can act as incubators for social enterprises by providing space, resources, and mentorship (Zhou et al., 2022).

Regardless of whether the university provides funding or provides information about capital, this support is important for social entrepreneurs. When looking to attract external funding, SEs stand a better chance if they have a partnership with a respectable organization, including a higher education institution (Grandi, Grimaldi, 2003). By aligning themselves with reputable academic institutions, SEs can significantly improve their chances of attracting external funding, gaining legitimacy, and ultimately achieving their social and financial goals.

2.3. Scaling

Scaling social enterprises involves expanding their impact to address larger social and environmental challenges, a process critical for maximizing societal benefits (Urban, 2015). Despite the importance of scaling, SEs often face significant hurdles, including limited access to funding, human resources and the complexities of maintaining their dual mission in new contexts. The concept of scaling in social enterprises is rooted in the broader discourse on social entrepreneurship and innovation. Dees, Anderson and Wei-Skillern (2004) define scaling as the process through which social enterprises increase their impact to better match the magnitude of the social problem they aim to solve. This involves not only growing the size of the organization but also replicating and adapting successful models to different contexts. Building strong networks and partnerships through research proves important (Austin, Stevenson, Wei-Skillern, 2006). Successful scaling often requires SEs to adapt their models to fit new environments, a process that can be significantly supported by university-based training and consultancy services (Bloom, Smith, 2010). Moreover, universities can aid in the development of robust measurement and evaluation systems that are essential for SEs to demonstrate their impact and attract further funding. Bradach (2003) underscores the need for clear metrics and a focus on outcomes to guide scaling efforts, something universities can provide through their expertise in research and evaluation. Academic institutions play an important role in providing incubator programs that offer both practical support and strategic guidance (Bocken, Fil, Prabhu, 2016). Furthermore, universities can help SEs navigate institutional complexities and regulatory environments, providing a more stable foundation (Ebrahim, Battilana, Mair, 2014). Tracey and Stott (2017) also emphasize the importance of universities in fostering innovation ecosystems that support SEs, noting that collaboration with academic researchers can lead to more innovative and effective scaling strategies.

3. Dynamic Capabilities for Social Entrepreneurs

Dynamic capabilities (DCs) theory, introduced by Teece, Pisano, and Shuen (1997), provides a useful framework for understanding how SEs can navigate the complexities of scaling. DCs refer to an organization's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. For SEs, developing these capabilities is crucial for overcoming resource constraints and adapting their models to new settings (Schriber, Löwstedt, 2020). Central to this theory is the view that firm success and failure in dynamic environments is best understood by addressing capabilities at different conceptual levels, each of which has distinct functions (Teece et al., 1997; Teece, 2007). While ordinary capabilities allow organizations to keep up with competition and seek efficiency, dynamic capabilities are necessary to leverage and influence ordinary capabilities in response to environmental dynamism (Eisenhardt, journal and 2000, 2000; Danneels, 2011). Hence, DCs are also referred to as higher-order capabilities (Teece, 2014; Helfat, Martin, 2015). Social enterprises operate in environments of high uncertainty and institutional voids. SEs also balance the tensions of their dual mission, which increases the need to persistently create, modify or extend their resource base. Dynamic capabilities have a profound impact on the effectiveness and sustainability of social entrepreneurial ventures. They enable social entrepreneurs to create and scale innovative solutions, achieve social impact, and respond to changing social needs (Bhardwaj, Srivastava, 2021). Dynamic capabilities contribute to organizational resilience, competitiveness, and long-term viability. Furthermore, social enterprises with strong dynamic capabilities can influence the broader social entrepreneurship ecosystem by sharing knowledge, inspiring other actors, and shaping policy agendas (Battilana, Dorado, 2010).

3.1. Sensing Capabilities

Sensing concerns an organisation's ability to identify new trends in the industry and assess the opportunities resulting from these trends (Achtenhagen, Melin, Naldi, 2013). Social enterprises need to possess strong sensing capabilities to identify social and environmental problems and opportunities for intervention. This involves scanning the environment, engaging with stakeholders, and developing a deep understanding of the context. In addition, this set of capabilities is complex (Mezger, 2014), as an organization needs to go beyond its current market to monitor and analyse any changes emerging in other industries or business domains (Inigo, Albareda, Ritala, 2017). The search activities that are relevant to 'sensing' include information about what's going on in the surrounding environment and must embrace potential collaborators. This includes potential funders as well (Heaton, Lewin, Teece, 2020). Establishing linkages between corporations and universities assists this broad-based search (Teece, 2007). Once an opportunity has materialized, the organization should recognize the need to adjust or radically change its business model (Torres, Sidorova, Jones, 2018). This would cause it to enter the seizing stage. This entails the possession of capabilities that involve a systematic approach whereby, by recombining technology, resources, and market knowledge, it would create a new BM suited to enable the exploitation of the emerging opportunity (Mezger, 2014). The following hypothesis is therefore posed:

H1. Market searching capability positively influences social entrepreneurs' ability to plan.

3.2. Seizing Capabilities

The seizing stage requires an organization to embed itself within its ecosystem in order to increase its accuracy in coordinating the requisite resources which would complement the business model innovation (BMI) process (Svejenova, Planellas, Vives, 2010). This would mean mobilising resources to pursue opportunities and capture value. Seizing opportunities involves developing innovative business models, mobilizing ecosystem resources, and leveraging networks to create social impact (Mair, Marti, 2006). Social entrepreneurs need to continuously learn and acquire new knowledge to address complex social challenges. Learning capabilities involve the acquisition, interpretation, and integration of new knowledge from diverse sources, including academia, communities, and other stakeholders (Bhardwaj, Srivastava, 2021). Knowledge creation encompasses the generation of new insights, the development of best practices, and the dissemination of knowledge (Day, Schoemaker, 2016). An important seizing capability is therefore planning and understanding the market (Teece, 2007; Torres, Sidorova, Jones, 2018). Planning capability has been shown to have a direct effect on companies' financial performance (Laaksonen, Peltoniemi, 2018; Lee, Chandra, 2020). It has also been associated with the availability of entrepreneurship-specific human capital in the entrepreneurial ecosystem, stemming in part from education (Roundy, Fayard, 2019). Universities are an important ecosystem actor from which social entrepreneurs can seize the knowledge necessary to implement and manage their financial resources (Diaz Gonzalez, Dentchev, 2021). Based on the findings that information and training support from universities enhances the performance of social entrepreneurs, the following hypotheses are posed:

H2a. Perceived university training support positively moderates the relationship between the planning capability and the ability of social entrepreneurs to implement financial resources.

H2b. Perceived university information support positively moderates the relationship between the planning capability and the ability of social entrepreneurs to implement financial resources.

3.3. Reconfiguring Capabilities

Reconfiguring capabilities entails continually renewing, reorganizing and redeploying resources so that future opportunities can be pursued (Teece, 2014; Roundy, Fayard, 2019). This is necessary as existing resources and capabilities become less valuable as competitors replicate them and as markets shift. During the reconfiguring process, entrepreneurs engage in activities in response to environmental disruptions (Kindström, Kowalkowski, Sandberg, 2013). These include enacting a new or updated marketing plan, implementing new business processes or engaging in different ways of achieving their dual mission (Wilden et al., 2013). Just as entrepreneurs must be able to seize new opportunities after sensing them, they must also be able to deploy new configurations once they have noticed the need for reconfiguring their capabilities (Zott, 2003). It has already been established that financial management, derived from the literature as an important outcome of financial education, is widely discussed as a crucial construct when it comes to the well-being both of entrepreneurs and their enterprises (Hussain et al., 2018; Mcgee et al., 2009; Bongomin et al., 2017). According to Bhardwaj & Srivastava (2021), marketing and planning capabilities influence the

reconfiguration process. (Teece, 2007): The ability to integrate and combine assets including knowledge is a core skill (Kogut, Zander, 1992; Grant, 1996). The combination of know-how within the enterprise, and between the enterprise and organizations external to it (e.g., other enterprises, universities), is important. In addition, given the importance of financial education and training for the scaling of social entrepreneurs, the following hypothesis is posed:

H3. The ability to implement financial resources is positively related to the ability of social entrepreneurs to scale.

Based on the discussion and previous studies, market searching is classified as a sensing capability, planning and implementing financial resources are classified as seizing capabilities, and the ability to scale – reconfiguring capability.

4. Methodology

4.1. Research context

This research was conducted within the frame of the multi-country project "European Latin American Network in Support of Social Entrepreneurs – ELANET". The main goal of the project is to perform a gap analysis to assess SEs needs and explore mechanisms of support from universities to SEs. To achieve the research goal, we survey social entrepreneurs through a survey instrument. It aims to collect their opinions about the support offered to social entrepreneurs by universities and other supporting organizations.

4.2. Sampling and data collection

Data was collected among social entrepreneurs accessed through the 11 participating universities from Latin America and Europe: Bolivia, Colombia, Ecuador, Peru, Austria, Italy and Bulgaria. Following Lincoln & Guba (1986) purposive sampling is applied to obtain views and experiences from a diverse group of participants. Observations are employed to ensure methodological triangulation to increase validity and reduce bias (Golafshani, 2015). To ensure consistency of responses, a survey protocol was delivered among university partners. To ensure construct validity, the survey protocols have been developed in numerous rounds of discussions between the international team of scholars. Data was collected from July to September 2021 by using Qualtrics XM software. The final sample included a total of 715 social entrepreneurs.

4.3. Measures

The constructs of the proposed model for knowledge transfer were gauged by multi-item Likert scales, ranging from 1 "strongly agree" to 7 "strongly disagree". All constructs have been checked for reliability and validity and show Cronbach alpha values of 0.800 or more (Tavakol and Dennick, 2011) and factor loading higher than 0.700 (Beavers et al., 2013).

The Market Searching construct was measured by using 3 items adopted from the scale of (Mcgee et al., 2009). It refers to the ability of the entrepreneur to:

1. Brainstorm (come up with) new ideas for a product or service
2. Identify the need for a new product or service
3. Design a product or service that will satisfy customer needs and wants

The Planning construct was measured by using 4 items adopted from the scale of (Mcgee et al., 2009). It refers to the ability of the entrepreneur to:

1. Estimate customer demand for a new product or service
2. Determine a competitive price for a new product or service
3. Estimate the amount of start-up funds and working capital necessary to start my business
4. Design an effective marketing/advertising campaign for a new product or service

Implementation of Financial Resources corresponds to one of the dimensions of entrepreneurial self-efficacy (Mcgee et al., 2009). This construct was measured by 3 items and refers to the ability of the entrepreneur to:

1. Organize and maintain the financial records of my business
2. Manage the financial assets of my business
3. Read and interpret financial statements

Information support was measured by using 6 items (Rahman et al., 2016):

1. Information about the market of my products and services
2. Information about available capital sources for my venture
3. Information about technologies to support my venture
4. Information about government regulations that are relevant to my venture
5. Information support i.e. product related market prices and business directory, to develop my capabilities
6. Information support i.e. accounting system and training related to developing my personal capabilities

Training support was measured by using 5 items (Rahman et al., 2016):

1. Training support to improve my technical job abilities
2. Training support to improve my interpersonal abilities
3. Training support to help to understand my business
4. Training support to enhance my productivity
5. Instructional aides (equipment, illustrations, etc.) in training programs which are similar to the real ones used in my venture

Challenges for Scaling was measured by using 3 items (Urban, 2015):

1. My initiative can be expanded from its original group of beneficiaries

2. The applicability of my initiative is clear in adjacent communities or the country as a whole
3. Many aspects of my initiative can be transferred and adapted to other settings around the world

To test the hypotheses posed in the dynamic capabilities section, the PROCESS Procedure for SPSS Version 4.2 is used (Hayes, 2012).

5. Findings

This section explores the influence of university training and information on SEs dynamic capabilities, which are crucial for their survival and scaling (Bhardwaj and Srivastava, 2021). This section begins with exploring the type of financing most often used by SEs.

Table 1. Sources of funding

	Frequency	Percent
Own friends	561	78.50
Friends and family	187	26.20
NGO	80	11.20
Private sponsors	106	14.8
Bank loans	168	23.50
Other	71	9.90

Source: ELANET data.

More than 78% of social entrepreneurs in the sample finance their ventures through their own funds. Both the unavailability of diversified sources of funding and the challenge of SE to identify and attract suitable funding are reflected in this result. This is also reflected in the top 3 challenges faced by social entrepreneurs: to receive funding; to acquire knowledge in managerial and financial aspects and to ensure the long-term sustainability of the initiative. In addressing these challenges, however, SEs rarely turn to universities for support: when inquired about the type of stakeholders and how important they are to support them in their entrepreneurial initiatives, only 9.50% of SEs chose universities as the most important stakeholder. One reason for this can be the boundary effects universities face in their efforts to support social entrepreneurs (Dentchev, 2023). Despite the long tradition of university-industry relations, that of university and social economy is lagging (Culkin, 2016). The following section shows the immense effect universities can have on SEs survival and scalability should this gap be bridged.

5.2. Market Searching and Planning

Studying the effect of social entrepreneurship education on students, it was established that one of the greatest gains for students is in identifying opportunities, i.e. market searching. This is also one of the most important entrepreneurship skills as identified in the literature. Hence, as a starting point, findings on hypothesis one reveal that this sensing capability positively affects planning – a seizing capability:

Table 2. Correlations for scaling

Correlations			
		Implementing financial resources	
Market Searching	Pearson Correlation	**.564****	
	Sig. (2-tailed)	**.000**	
	N	674	
**. Correlation is significant at the 0.01 level (2-tailed).			
Correlations			
			Implementing financial resources
My initiative can be expanded from its original group of beneficiaries		Pearson Correlation	.171**
		Sig. (2-tailed)	.000
The applicability of my initiative is clear in adjacent communities or the country as a whole		N	674
		Sig. (2-tailed)	.000
		N	674

** Correlation is significant at the 0.01 level (2-tailed).

The p value of .000 shows a significant correlation at the 0.01 level and the high Pearson Correlation value indicates a strong positive correlation between market searching and implementing financial resources. This means that the more students and social entrepreneurs are able to identify needs and design products and services to satisfy them, the more they are able to estimate customer demand and working capital needed to start their venture, as well as determine a competitive price and design an effective marketing campaign.

The strong positive correlation between market searching (a sensing capability) and the ability to implement financial resources (a seizing capability) is in line with prior research that underscores the importance of opportunity recognition in entrepreneurial success (Shane and Venkataraman, 2000). However, this study extends the findings of previous research by demonstrating the specific impact of market searching on financial planning within the context of social enterprises. While earlier studies have established the general importance of market orientation for business success (Narver, Slater, 1990), this research highlights how university education in market searching can directly influence financial outcomes for social entrepreneurs, a nuance that has been underexplored in the social enterprise literature.

5.3. Planning and implementing financial resources

As a second step, moderation analysis is applied as the purpose of the study is to test whether the magnitude of an independent variable's effect on some outcome (dependent) variable of interest depends on a third variable or set of variables (Dawson, 2014). In this case, a moderating effect of information and training provided by universities on the relationship between planning and implementing financial resources is found in line with previous research (Rahman et al., 2016). It also highlights the role of the university in the formation of seizing capabilities on the part of social enterprises so that they can benefit from the support provided in the form of information or training (De Silva, Al-Tabbaa, Pinto, 2023). The results demonstrate that in this interaction, the provision of information plays a more significant role in implementing financial resources than the provision of training. In both

forms of support, a positive moderating effect is observed, i.e. the presence of support from the university in the form of providing information or training increases the relationship between the ability of social entrepreneurs to plan and implement financial resources. These findings support Hypotheses 2a and 2b.

Table 3. Training Support Model Summary

R	**R-sq**	**MSE**	**F**	**df1**	**df2**	**p**
0.5567	**0.3099**	11.6769	95.7853	3.0000	640.0000	**0.0000**
Model						
	coeff	se	t	p	LLCI	ULCI
constant	9.8565	2.2369	4.4063	0.0000	5.4639	14.2490
Q10total	0.2722	0.1034	2.6319	**0.0087**	0.0691	0.4753
Q18a_tot	-0.1741	0.0844	-2.0629	**0.0395**	-0.3399	-0.0084
Int_1	0.0089	0.0038	2.3563	**0.0188**	0.0015	0.0163

The prediction power of the model is assessed by the R square value, which is the statistical measure of the proportion of variance in the dependent latent variable explained by the independent latent variable of interest (Shmueli et al., 2019). R square of the model for training support is .3099 or 30%, significantly higher than the 10% required for a model to have an adequate predictive capability in cross-sectional data (Shmueli et al., 2019). The p values are significant, i.e. below 5% for all variables, indicating a moderating effect (Dawson, 2014).

Table 4. Information Support Model Summary

R	**R-sq**	**MSE**		**F**	**df1**	**df2**		**p**
0.5510	0.3036	11.6015	92.1000	289.0000	3.0000	634.0000	0.0000	0.0000
Model								
	coeff	**se**	**t**		**p**	**LLCI**	**ULCI**	
constant	9.4323	1.9049	4.9516		**0.0000**	5.6916	13.1729	
Q10total	0.2974	0.0868	3.4241		**0.0007**	0.1268	0.4679	
Q19a_tot	-0.1395	0.0657	-2.1234		**0.0341**	-0.2684	-0.0105	
Int_1	0.007	0.0029	2.4449		**0.0148**	0.0014	0.0127	

Similar results are obtained in testing for the moderation effect of information support. R square is a good .3036 and p values below 5%. The R square change is 0.0060 showing the effect of the moderator variable on the relationship between planning and implementing financial resources (Hayes, 2012).

In addition, implementing financial resources is significantly correlated at the 0.01 level with the social enterprise's scalability, as gauged by the following robustness check findings:

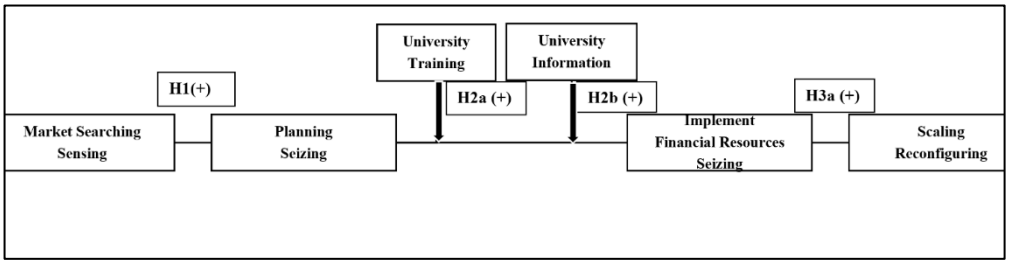
Table 5. Correlations for scaling

Correlations			
		Implementing financial resources	
Market Searching	Pearson Correlation	**.564****	
	Sig. (2-tailed)	**.000**	
	N	674	
**. Correlation is significant at the 0.01 level (2-tailed).			
Correlations			
			Implementing financial resources
My initiative can be expanded from its original group of beneficiaries		Pearson Correlation	.171**
		Sig. (2-tailed)	.000
The applicability of my initiative is clear in adjacent communities or the country as a whole		N	674
		Sig. (2-tailed)	.000
		N	674

**. Correlation is significant at the 0.01 level (2-tailed).

This means that social entrepreneurs who are able to manage the financial assets of their enterprise, read and interpret financial statements and organize and maintain financial records, are more likely to find investment and expand their initiative. As a result, the following model of the role of university training and information support in the development of SE's dynamic capabilities in terms of ability to scale is proposed:

Figure 1. Proposed model of the role of university support in the development of SEs' dynamic capabilities



In line with other authors, we find that information about available capital and training on technical abilities plays an important role in SEs ability to implement financial resources (Hussain, Salia, Karim, 2018).

The importance of the information provided when it comes to attracting funding can be observed even among social entrepreneurs who are sceptical about university training:

Table 6. Predictors for attracting funding

Model Summary[a]					
train_sup_filter	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1.00	1	.375[b]	.141	.128	3.50209
2.00	1	.234[c]	.055	.039	4.56384

Coefficients[a,b]						
			Standardized Coefficients		Collinearity Statistics	
Perceived Training support	Model		Beta	Sig.	Tolerance	VIF
Negative	1	(Constant)		.004		
		Planning ability	.199	.002	.690	1.450
		University training support	.073	.317	.500	1.999
		University information support	.211	.005	.489	2.043
		Ability to persuade	.046	.475	.648	1.542
		Awareness of potential ROI	.005	.941	.615	1.627
Positive	1	(Constant)		.036		
		Planning ability	.169	.006	.838	1.193
		University training support	-.073	.241	.812	1.232
		University information support	.046	.435	.891	1.123
		Ability to persuade	.138	.047	.647	1.546
		Awareness of potential ROI	-.033	.631	.648	1.543
a. Dependent Variable: Attract Funding						

R square of the model is .141 or 14%, higher than the 10% required for a model to have an adequate predictive capability (Shmueli et al., 2019). The model is significant at .000 and the collinearity check ensures VIF factors below 10 (Kline, 2015). In predicting which factors are strongest in the social entrepreneur's ability to attract funding, for those who have a negative perception towards university training (gauged by filtering on answers from 1 to 3, negative to neutral, on the question regarding perceived training support), university information support is still of significance ($p = 0.005 < 0.05$). With a standardized beta coefficient of .211 this is also the highest predictor in the regression model for SEs ability to attract funding. Social entrepreneurs who have scored positive and very positive on the question regarding perceived university training support are most likely to be affected by their planning ability when attracting funding, with a statistical significance of .006 and a standardized beta coefficient of 0.169. This in turn once again reinforces the importance of planning as a seizing capability for social entrepreneurs.

The moderation analysis reveals that university-provided information plays a more significant role than training in enhancing the relationship between planning and implementing financial resources. This finding contrasts with earlier studies, such as Rahman et al. (2016), which primarily emphasized the importance of training programs. While training remains important, this research suggests that for social entrepreneurs, especially those in resource-constrained environments, access to timely and relevant information is even more crucial for effective financial management. This insight contributes to the understanding that in dynamic and uncertain environments, the ability to access and use information may outweigh the benefits of formal training, which may not always be immediately applicable (De Silva, Al-Tabbaa, Pinto, 2023).

Previous studies have often grouped university support into a single category, not differentiating between the types of support (Clark, 1998). This research, however, provides a more nuanced view, showing that while training might be undervalued by some entrepreneurs, the provision of information remains a critical resource.

The study's findings that effective financial resource management is significantly correlated with the scalability of social enterprises align with the broader literature on resource-based views of the firm, which posits that the ability to manage resources is crucial for sustained competitive advantage (Barney, 1991). However, this research adds specificity to the social enterprise context by demonstrating that the correlation is particularly strong when SEs are supported by universities through information and planning guidance. Previous studies, such as those by Lall and Park (2022), have highlighted the challenges of scaling social enterprises, particularly in terms of financial sustainability. This study advances the discourse by suggesting that university support can play a pivotal role in overcoming these challenges, thereby enhancing the scalability of SEs. This highlights the potential of universities as catalysts for social impact, a role that has been recognized in theory but underutilized in practice (Dentchev, 2023).

6. Conclusion

This research provides a strong argument for universities to rethink how they engage with social entrepreneurs, emphasizing the need for flexible, information-rich support mechanisms that align more closely with the realities of social enterprise operations. The aim of this study was to address a critical gap in the literature concerning the role of universities in developing dynamic capabilities within social enterprises, particularly in contexts where ecosystem and university resources are sparse (Roundy, Fayard, 2019). While the contribution of universities to the development of DCs in SEs is conceptually recognized, the specific mechanisms through which universities influence these capabilities remain under-researched, especially in developing economies (Dentchev, 2023). This research sought to identify how university-provided training and information support can enhance SEs' ability to implement financial resources and scale their operations, thereby contributing to the broader discourse on the micro-foundations of dynamic capabilities in non-thriving entrepreneurial ecosystems. The study addressed the identified research gap by investigating the specific types of university support – training and information – that are most effective in enhancing SEs' financial resource implementation capabilities. The results show that in low-income contexts with high uncertainty, university-provided training and information have a substantial moderating effect on social entrepreneurs' ability to implement financial resources, which in turn positively affects their scalability. This suggests that the role of universities extends far beyond traditional educational functions and into the realm of practical, operational support that is critical for the success of external SEs.

6.1. Managerial Implications

The findings from this study underscore the importance of viewing universities as strategic partners in the scaling process, rather than just educational institutions. Social enterprises should not only actively seek partnerships with universities for traditional training but also leverage these relationships to access critical market and financial information that can significantly enhance their planning and resource management capabilities. To further scale effectively, social enterprises should engage in continuous learning and adaptation. SE managers should proactively engage with universities to stay updated on the latest industry trends, technologies, and best practices. This engagement could take the form of participating in university-led workshops, enrolling in specialized courses, or collaborating on research projects that align with the SE's mission. Leveraging university networks for market expansion is another crucial step. For university administrators, the study emphasizes the need to design targeted support programs that go beyond generic training to address the specific needs of SEs. Universities can leverage flexible, information-rich support mechanisms that can be tailored to the diverse challenges faced by social enterprises.

6.2. Limitations and Future Research

Despite its contributions, this study is not without limitations. One of the primary limitations is its reliance on data from a specific set of countries within the ELANET network, which may limit the generalizability of the findings to other regions or contexts. Additionally, the study's cross-sectional design restricts the ability to draw causal inferences about the long-term impact of university support on SE scalability. Future research could address these limitations by employing longitudinal designs to assess how university support influences SE scalability over time. Expanding the geographic scope of the study to include more diverse regions would also provide a more comprehensive understanding. Lastly, the study does not differentiate between types and orientations of HEIs, which was an intentional choice to provide a broad overview of university support for SEs. By not differentiating between types and orientations, the study aims to highlight general principles and practices that can be universally applicable, providing a more inclusive understanding of the potential roles universities can play in supporting SEs. Future studies can tease out different types of support depending on the type of university.

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