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Exploring social entrepreneurship phenomena: Establishing conceptual and operational foundations and uncovering strategies to design innovative business models

Filipa Andrêa Godinho de Lancastre Serpa Pinto
Student nº 26219

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Professor Carmen Lages and
Professor Filipe Santos

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DISSERTATION ABSTRACT

In a world confronted with increasingly complex societal issues, social entrepreneurship holds the promise to effectively tackle grand challenges. Following on its vibrant practice, social entrepreneurship is a burgeoning yet emerging research field. This dissertation addresses prevailing definitional and operational issues and explores how social entrepreneurs develop innovative business models to attain their social missions. In doing so, it contributes to untangle conceptualization fallacies that hinder knowledge accumulation and advancement, to open up new research avenues employing methodologies that leverage large samples and enable generalizability of findings, and to identify specific strategies that social entrepreneurs develop to achieve social impact.

KEY WORDS: BUSINESS MODEL; CONCEPTUALIZATION; SCALE DEVELOPMENT; SOCIAL ENTREPRENEURSHIP

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1. INTRODUCTION

Social entrepreneurship (SE) has struck a responsive chord and the time is certainly ripe for entrepreneurial approaches to social problems (Dees, 1998). SE has grown rapidly (Stephan et al., 2016; Wry and York, 2017) in light of the tremendous opportunity, the enormous demand and the explosive growth of social organizations in every continent (Drayton, 2002). However, SE as a field of research is still characterized by different patterns of discourses, narrative logics, and normative organizational models (Nicholls, 2010), and a lack of dominant frameworks (Saebi et al., 2019).

Leveraging the rigor provided by academic methodology, the research described in this dissertation aims to advance knowledge in a field where 'enthusiasm has outpaced conceptual development and refinement' (Miller et al., 2012, p. 630). Specifically, the studies here presented focus on the conceptualization and operationalization of the SE phenomenon and how it contributes to solve societal grand challenges through developing innovative business models.

1.1. THE CONCEPT OF SOCIAL ENTREPRENEURSHIP

After years of a lively academic discussion on the concept of SE, scholars still do not agree on what the term really means (Saebi et al., 2019). At the end of last century, the use of the SE term was appropriated by two separate groups, who were based on different frames, contested the legitimate use of the category, and contributed to its persistent ambiguity (Chliova et al., 2020). In the pre-paradigmatic context that still characterizes the SE field, academics have advanced numerous definitions of the concept stressing different attributes of the phenomenon, such as innovativeness, earned income, or a central social mission (Anderson and Dees, 2006). In the midst of the controversy, Choi and Majumdar (2014) concluded that a universal definition is hardly possible and argued that SE is an essentially contested concept.

The lack of a unifying conceptualization did not deter scholars from advancing operational definitions to enable the academic field to move into a new stage of development exploring large samples of data. Several operational definitions emerged based on different conceptualizations of SE: as a cross-sector phenomenon characterized by market-based revenues (Stevens et al., 2015) and innovativeness (Bosma et al., 2015), or within the nonprofit sector based on the entrepreneurial orientation construct (Dwivedi and Weerawardena, 2018; Morris et al., 2011). These definitions, as the large majority of management concepts (Podsakoff et al., 2016), are based on a classical conceptual structure, claiming a universal set of singly necessary and jointly sufficient attributes of SE. However, assuming such conceptual structure contrasts with previous arguments for SE's contested nature (Choi and Majumdar, 2014) and does not reflect the co-existence of multiple perspectives stressing differing attributes of the phenomenon.

1.2. SOCIAL ENTREPRENEURSHIP AND BUSINESS MODEL INNOVATION

Innovativeness, or the quality of introducing new ideas, is not always seen as a fundamental attribute of SE as a consequence of the co-existence of distinct perspectives on the SE concept. However, innovativeness reflects an important means by which new opportunities are pursued (Lumpkin and Dess, 1996; Zahra et al., 2009). In the SE context, innovativeness is often associated with developing new models, approaches, methods of production, strategies, and ways of organizing in order to increase effectiveness and efficiency in tackling a social problem (Dees, 1998; Peredo and Chrisman, 2006). SE organizations are prone to create innovative business models because they are more likely to emerge when previous pathways are inexistent (Dutta, 2019).

A business model can be broadly defined as “a system of interdependent activities performed by a focal firm and its partners and the mechanisms that link these activities to each other” (Amit and Zott, 2015, p. 331). In the context of SE, research in business models is still scarce, despite academics anticipating that social and environmental issues may be major drivers of business model innovation (Foss and Saebi, 2017; Massa et al., 2017). Notable exceptions explore business model typologies (Mair et al., 2012; Seelos and Mair, 2005), describe different tensions and ways of management for distinct types of business models (Santos et al., 2015; Saebi et al., 2019), and identify several specific SE characteristics that may influence the business model design process. However, a holistic understanding of how social entrepreneurs design their innovative business models is still under researched. Investigating such process is important as it may reveal distinct and original strategies that social entrepreneurs use vis-à-vis their commercial counterparts, providing relevant knowledge for academics and practitioners alike.

1.3. RESEARCH QUESTIONS

The studies developed along the doctoral program and herein described aim to answer three research questions that jointly contribute to explore and advance knowledge in the field of SE (Table 1).

To answer the first question – *Which attributes identify SE phenomena and how are they organized?* – Study I followed Podsakoff and colleagues (2016) recommendations for

Table 1. Overall view of the PhD research goal and studies conducted

PhD research goal: **To establish conceptual and operational foundations of social entrepreneurship and explore strategies to design innovative business models**

	Research Question	*Research Methods*	*Sample*	*Main contributions*	*Contribution of the study to PhD goal*	*Co-authors*
Study I	• Which attributes identify SE phenomena and how are they organized?	*Qualitative* • Literature review and content analysis • Semi-structured interviews	• 209 SE definitions • 22 interviews	• SE as a family resemblance concept • 'Three-leaf clover' framework identifying 3 conceptual subtypes that result from grouping central attributes differently	• Review of conceptual foundations of phenomena to enable sound choice of samples	• Lages, C. • Santos, F.
Study II	• How should SE be operationalized?	*Quantitative* • Study 1: Content assessment • Study 2: Instrument purification • Study 3: Instrument validation	• 15 experts + 246 respondents (13%) • 830 respondents (17.7%) • 1.089 respondents (16.5%)	• Confirmation of SE conceptual structure • Validation of 13-item scale to measure SDEO under the *developmental* subtype • Validation of theoretically relevant SDEO relationships	• Empirical confirmation of SE subtypes • Validation of operational instrument to assess SDEO	• Balabanis, G. • Lages, C. • Santos, F.
Study III	• How do social entrepreneurs leverage decision-making logics to strategically design innovative business models?	*Qualitative* • Longitudinal case study research	• Matched-pair cases: business model design processes using polar decision-making logics	• BMI framework as a map of how entrepreneurs employ distinct strategies • Purposeful co-creation as a strategy to design new business models	• Understanding of strategies to design innovative business models in the context of SE	• Santos, F. • Lages, C.

developing good conceptual definitions, complementing an extensive review of 209 academic definitions with 22 semi-structured interviews with knowledgeable SE experts. The conclusions suggest that the SE concept follows a family resemblance structure, in which membership in a category is not defined by a case possessing a simple set of criterial features but rather by carrying shared attributes with other cases. Findings also suggest that three main subtypes of the SE concept emerge in the literature and in practice by grouping key SE attributes differently. Sharing a common focus on wellbeing improvement goals, the *business* subtype stresses the importance of developing commercial activities to sustain the social mission, the *developmental* subtype focuses on using innovativeness to pursue opportunities to catalyze social development, and the *benefactor* subtype understands SE as the employment of a professional approach to ensure accountability in nonprofit organizations. By specifying the attributes of each of the three prevailing subtypes of SE, these results not only clarify the fallacy of using the same SE term for different phenomena, but also offer a path to operationalize SE.

Building on the previous study's conclusions, study II focused on the research question – *how should SE be operationalized?* Results provide empirical support for SE's family resemblance structure, confirming that the key attributes identified relate differently with each other. In line with the conclusions of Study I, the surveys conducted on three independent samples of social entrepreneurs confirm that the attributes innovativeness, proactiveness, wellbeing improvement goals, and transformational change are significantly correlated and share a common theme. However, the level of *commercial activities* and *professional accountability* do not correlate well with the previous attributes. In this study, I also validated a 13-item scale to assess Social Development Entrepreneurial Orientation (SDEO) as a second-order reflective construct that refers to the use of innovativeness to pursue opportunities to catalyze social change and/or address social needs (Mair and Martí, 2006).

Finally, Study III adopted the *developmental* SE subtype and a case study research design, selecting a matched-pair of innovative social entrepreneurial projects, to answer the question: *how do social entrepreneurs leverage decision-making logics to strategically design innovative business models?* Focusing on innovativeness as instrumental to create value and expanding the concept of business models beyond the development of commercial activities, enables research to explore new combinations of resources that may yield innovative business models, different from those already investigated within the traditional entrepreneurship literature. The findings, summarized in the BMI strategic framework, revealed that social entrepreneurs use distinct strategies to design innovative business models in different situations, leveraging distinct decision-making logics, and privileging specific design inputs. This research further describes the purposeful co-creation approach as a strategy to conceptualize innovative business models in which social entrepreneurs mobilize local stakeholders early on to collaboratively design the new business model aiming at a specific societal purpose.

Next, I describe each of the three empirical studies' theoretical background, methods, results, and conclusions in detail. Although the pronoun 'I' was adopted throughout this dissertation, I fully recognize the fundamental contributions of my co-authors in each study.

2. EMPIRICAL STUDIES

2.1. STUDY I. SOCIAL ENTREPRENEURSHIP AS A FAMILY RESEMBLANCE CONCEPT

ABSTRACT

Over twenty years after Dees' seminal 1998 article on the meaning of social entrepreneurship, conceptual controversy persists. Based on the review of 209 academic definitions of social entrepreneurship, complemented with 22 interviews with knowledgeable actors in the field, I argue that the concept follows a family resemblance structure. Assuming this structure, membership to the SE concept is not defined by a case possessing a universally accepted set of criteria but by carrying shared attributes with other cases. I propose the "three-leaf-clover" framework as a visual representation of prevailing conceptual subtypes that emerge from grouping different central but controversial SE attributes. Sharing a common focus on wellbeing improvement goals, the *business* subtype understands SE as the process of starting a commercial enterprise, the *developmental* subtype argues that SE is about using innovativeness to pursue opportunities for social development, and the *benefactor* subtype views SE as borrowing a professional managerial approach. The family resemblance structure clarifies SE's fuzzy boundaries, points to the persistent fallacy of using the same term to label different phenomena, draws researchers' attention to the importance of explicitly stating the subtype under study, and cautions against assuming the same nomological net across subtypes. To the best of my knowledge, this study pioneers the application of the family resemblance structure to a management concept, opening up new opportunities to explore other management concepts under a family resemblance frame.

2.1.1. Introduction

The field of SE is growing rapidly (Hu et al., 2020; Stephan et al., 2016; Wry and York, 2017), but "enthusiasm has outpaced conceptual development and refinement" (Miller et al., 2012, p. 630). In the midst of the controversy that still persists about what SE really means (Saebi et al., 2019), the lack of systematic, robust, and empirically based theory (Sassmannshausen and Volkmann, 2018) and the need for quantitative studies that allow causal and generalizable findings (Hota et al., 2020), press academics to engage in operationalization efforts building on distinct views of the concept (eg., Dwivedi and Weerawardena, 2018; Kannampuzha and Hockerts, 2019; Lepoutre et al., 2013).

While previous conceptualization and operationalization studies undeniably provide valuable contributions to advance knowledge in the SE field, the adopted classical conceptual structure based on necessary and sufficient attributes clashes with understanding SE as an essentially contested concept (Choi and Majumdar, 2014). Often led "by advocacy worldviews of the researchers themselves" (Lehner and Kansikas, 2012, p. 198), scholars tend to either treat discrete features of SE as equivalent to the broader concept, or use a rigid, monothetic architecture based on a single basic principle that potentially excludes some actors who may identify themselves with SE.

"Concept formation lies at the heart of all social science endeavors" (Gerring, 2012, p.112), not only because it addresses the fundamental question of what we are talking about, but also because in doing so it allows for knowledge to accumulate and progress. The disparity of terminology in SE creates serious obstacles to accumulate knowledge because what is presented under the banner of SE is different from one publication to another, setting an urgent call to systematize the scattered knowledge developed so far. Towards a more inclusive framework, this study moves beyond the classical structure of concept definition and suggests that SE follows a family resemblance conceptual structure.

This study answers the research questions *which attributes identify SE and how are they organized?* Based on an extensive review of 209 academic definitions of SE complemented with an insider perspective arising from 22 interviews with experts and knowledgeable practitioners, I propose the three-leaf clover framework as a comprehensive scheme of the SE concept. In this framework, I identify three conceptual SE subtypes – *business*, *developmental*, and *benefactor* – that fall under the large umbrella of the SE family resemblance concept. The contributions include a map of the SE territory that untangles the fallacy of labelling different phenomena with the same SE term and guides academics and practitioners in contextualizing their findings and practices. Additionally, results contribute to setting a sound path to operationalize SE from which rigorous measurement instruments can be designed to empirically capture the different subtypes of SE and to investigate theoretically relevant causal relationships.

2.1.2. Theoretical background: Conceptualizing social entrepreneurship

A considerable number of conceptual studies on SE emerged at the beginning of the century stressing different aspects of the phenomenon (Nicholls, 2010) and reaching a peak around 2006 (Alegre et al., 2017), when several highly cited papers were published. Following the abundance of publications in the academic field, scholars presented several excellent reviews (Saebi et al., 2019), some of which focus specifically on SE's conceptual definition (Table 2). While some of these reviews provide a unique definition of SE (Bacq and Janssen, 2011; Peredo and McLean, 2006), Choi and Majumdar (2014) conclude that "a universally accepted definition of social entrepreneurship is hardly possible" (2014, p. 364). Arguing that a cluster concept would enable SE's systematic future research, the same

Table 2. Previous reviews on Social Entrepreneurship

Year	Authors	Journal	Article title	Aim of the review	Main conclusion
				DEFINING THE CONCEPT	
2006	Peredo and McLean	Journal of World Business	Social entrepreneurship: A critical review of the concept	"(...) undertake[s] an analytical, critical and synthetic examination of "social entrepreneurship" in its common use, considering both the 'social' and the 'entrepreneurship' elements in the concept." (p. 56)	"(…) social entrepreneurship is exercised where some person or persons (1) aim either exclusively or in some prominent way to create social value of some kind, and pursue that goal through some combination of (2) recognizing and exploiting opportunities to create this value, (3) employing innovation, (4) tolerating risk and (5) declining to accept limitations in available resources." (p. 56)
2011	Bacq and Janssen	Entrepre-neurship and Regional Development	The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria	"(...) make propositions regarding how to define the social entrepreneur, social entrepreneurship and the social entrepreneurship organization, based on geographical and thematic aspects." (p. 374)	"Therefore, all definitions should at least illustrate these tensions between the social objectives and the market requirements induced by the commercial activity." (p. 388)
2014	Choi and Majumdar	Journal of Business Venturing	Social entrepreneurship as an essentially contested concept: Opening a new avenue for systematic future research	"(...) propose a means, through the idea of the 'cluster concept', to provide a definitional foundation which can help to advance the development of systematic future research." (p. 363)	"(…) this article shows that social entrepreneurship can be regarded as an essentially contested concept (…) [and] proposes the conceptualization of social entrepreneurship as a cluster concept (…)." (p. 363)
2017	Alegre, Kislenko and Berbegal-Mirabent	Journal of Social Entrepre-neurship	Organized chaos: Mapping the definitions of social entrepreneurship	"(...) create a map of what the distinct definitional spheres are, in order to provide an orientation for new and existing scholars of social entrepreneurship." (p. 248)	"(…) there does, in fact, exist widespread consensus within the academic community on the definition and meaning of the term social entrepreneurship and it is primarily centred on the combination of social and financial goals, community ideals and innovation." (p. 248)
				EXPLORING THE LEVEL OF ANALYSIS AND RELATIONSHIPS WITH BOUNDARY CONCEPTS	
2015	Phillips, Lee, Ghobadian, O'Regan and James	Group and Organization Management	Social innovation and social entrepreneurship: A systematic review	"(...) address the gap in research by putting forward a robust theoretical framework, flexible enough to accommodate both concepts and their shared and systematic development." (p. 429)	"(…) the authors synthesize formerly dispersed fields of research into an analytical framework, signposting a 'systems of innovation' approach for future studies of social innovation and social entrepreneurship." (p. 428)
2018	Macke, Sarate, Domene-ghini and Silva	Journal of Cleaner Production	Where do we go from now? Research framework for social entrepreneurship	"(...) promote the systematization of knowledge previously academically generated and legitimated to reveal the interrelationship among the various aspects and drivers of social entrepreneurship." (p. 677)	"The authors propose a research framework that may offer guidance to specialists and researchers willing to investigate the link between dimensions and elements of a social entrepreneurship from a social development point of view." (p. 677)

Year	Authors	Journal	Article title	Aim of the review	Main conclusion
2019	Saebi, Foss and Linder	Journal of Management	Social entrepreneurship research: Past achievements and future promises	"(...) summarize and structure extant SE research at each level of analysis and to outline a research agenda for SE research as a multilevel, multistage phenomenon." (p. 71)	"(…) we conclude that (1) SE is still an unclear and contested concept that (2) relates to a multilevel and multistage phenomenon, which (3) has been scrutinized at different levels of analysis but (4) not in an explicit multilevel setting. (p. 89)
Year	Authors	Journal	Article title	Aim of the review	Main conclusion
			STRUCTURING THE ACADEMIC FIELD		
2009	Short, Moss and Lumpkin	Strategic Entrepre-neurship Journal	Research in Social Entrepreneurship: Past contributions and future opportunities	"(...) review and critique existing social entrepreneurship research and propose a model that delineates its conceptual boundaries (...) suggest [that] themes of interest to the field of strategic entrepreneurship" (p. 162)	"As a nascent research stream, it suffers from issues common to early strategic management and entrepreneurship research, such as lack of construct legitimacy and undefined theoretical content and boundaries." (p. 184)
2010	Dacin, Dacin and Matear	Academy of Management Perspectives	Social entrepreneurship: Why we don't need a new theory and how we move forward from here	"(...) examine the current state of the social entrepreneurship literature, asking what is unique about social entrepreneurship and what avenues create opportunities for future research in the field." (p. 37)	"(…) we conclude that while it is not a distinct type of entrepreneurship, researchers stand to benefit most from further research on social entrepreneurship as a context in which established types of entrepreneurs operate." (p. 37)
2012	Lehner and Kansikas	Journal of Social Entrepre-neurship	Pre-paradigmatic Status of Social Entrepreneurship Research: A Systematic Literature Review	"(...) gain insight into the construction of paradigmatic leitmotifs, the authors set out to evaluate the scholarly literature on SE in the context of the paradigm-framework by Burrell and Morgan (1979)." (p. 199)	"(…) the study finds statistical evidence to the hypotheses that SE differs in researchers' paradigms, that seminal SE research transcends the foci on either detached structures or individuals, and that research in SE is often led by advocacy worldviews of the researchers themselves." (p. 198)
2014	Doherty, Haugh, and Lyon	International Journal of Management Reviews	Social enterprises as hybrid organizations: A review and research agenda	"(...) provide a theoretical framework to explain how SEs respond to and manage conflicting logics." (p. 418)	"By examining the influence of dual mission and conflicting institutional logics on SE management the authors suggest future research directions for theory development for SE and hybrid organizations more generally." (p. 417)
2016	Rey-Martí, Ribeiro-Soriano and Palacios-Marqués	Journal of Business Research	A bibliometric analysis of social entrepreneurship	"(...) orient researchers who are new in social entrepreneurship research so that they know which journals and authors to consult when studying this phenomenon." (p. 1651)	"(…) the language of publication of such research, the trend in the number of publications from year to year, the most relevant journals for literature review, and the most prolific and most cited social entrepreneurship authors." (p. 1655)
2020	Gupta, Chauhan, Paul, and Jaiswal	Journal of Business Research	Social entrepreneurship research: A review and future research agenda	"(...) filter major themes and sub-themes while identifying the popular and less popular research themes" (p. 210)	"(…) the field has not been completely probed, and there exists some unexplored research themes for future research." (p. 221)

authors recognize that these clusters are also contested, complicating the applicability of the cluster concept.

As conceptualization articles tapered off, operationalization efforts began to emerge building on different definitions and attributes of SE. Lepoutre et al. (2013) measure 'Social Entrepreneurial Activity' based on individuals' self-reported social mission, innovation, and market-based revenues. Stevens and colleagues define SE as "entrepreneurship with an embedded social purpose (…), which is sustainable through trade (…) and not limited to a particular organizational form" (2015, p. 1053). Kannampuzha and Hockerts (2019) suggest that 'Organizational Social Entrepreneurship' is a formative construct based on three components – social change intensions, commercial activities, and inclusive governance. Within the nonprofit sector, Morris and colleagues (2011) suggested adapting the 'Entrepreneurial Orientation' construct to the nonprofit context. The 'Social Entrepreneurial Orientation' scale has four dimensions (social innovativeness, social risk-taking, social proactiveness, and socialness) according to Niemand and colleagues (2018), and five attributes in Dwivedi and Weerawardena study (2018) (innovativeness, proactiveness, risk management, effectual orientation, and social mission orientation).

The use of divergent sets of attributes to conceptualize SE reflects the lack of consensus that still persists. Most of these efforts explicitly use a classical approach, claiming a universal set of singly necessary and jointly sufficient attributes, clashing with previous arguments for its contested nature (Choi and Majumdar, 2014). Recognizing the valuable contribution of these studies in refining the SE construct, the pursuit of operational definitions without acknowledging a broader frame of the concept risks legitimizing powerful actors in the field rather than capturing the existing diversity of perspectives. I share other scholars' concerns that in the quest to find a consensual definition, perspectives defended by less powerful actors might become marginalized, and agree that "over time, this imbalance might be expected to undermine and perhaps even destroy the normative and cognitive legitimacy of social entrepreneurship to a wider audience" (Nicholls, 2010, p. 626).

As an alternative to the classical conceptualization approach, the family resemblance structure presented in the philosophy and psychology literatures (Komatsu, 1992; Rosch and Mervis, 1975; Wittgenstein, 1953) defines complex concepts for which no single set of characteristics is common to all variants:

> *"A family resemblance relationship consists of a set of items of the form AB, BC, CD, DE. That is, each item has at least one, and probably several, elements in common with one or more other items, but no, or few, elements are common to all items." (Rosch and Mervis, 1975, p. 575)*

The concept of 'games' and the common attributes in its subtypes board-games, card-games, ball-games and Olympic games, represent an example of a complicated network of similarities overlapping and crisscrossing among the subtypes (Podsakoff et al., 2016). Concepts holding a family resemblance structure are not bounded entities in which membership is defined by an item or case possessing a simple set of criterial features (Rosch and Mervis, 1975). Rather, cases that share many attributes with other cases bear greater family resemblance and are more ideally representative of the concept than members sharing only a few attributes (Podsakoff et al., 2016). Every attribute must be shared by more than one case from the same conceptual space, and those attributes shared by many cases are more central than others shared by only a few cases (Komatsu, 1992; Podsakoff et al., 2016). Although no concepts in the management literature are known to be explicitly defined under a family resemblance structure (Podsakoff et al., 2016), there are recent studies in the social sciences that make use of this conceptual structure to define complex concepts, such as ‘player identification’ (Downs et al., 2019) ‘mother’ (Goertz and Mazur, 2008) and ‘relational contracting’ (Yeung et al., 2012).

There are important implications from assuming the family resemblance as the underlying structure of a concept. First, unlike classical concepts, family resemblance ones accommodate members possessing different sets of attributes. The ‘or’ rather than the ‘and’ structural logic (Podsakoff et al., 2016) that underlies the family resemblance structure may include membership arguments stressing differing features, aggregating distinct perspectives on the concept under the same conceptual space without ignoring existing variance (Yeung et al., 2012). Additionally, conceptual subtypes in a classical structure capture variation by adding an extra and non-essential attribute to the original concept. In contrast, to form subtypes using a family resemblance structure, Barrenechea and Castillo (2019) propose a method of grouping the existing attributes used in defining the concept and recommend “turning to the subtypes to gain the differentiation that is lost by the inherent nature of these structures” (2019, p. 123). Finally, one of the defining features of the family resemblance structure is attribute substitutability (Podsakoff et al., 2016), which hampers causal homogeneity that characterizes classical concepts (Barrenechea and Castillo, 2019), implying that antecedents and consequents may not be the same across subtypes.

Following literature’s guidelines to develop good conceptual definitions, this study allows for the conceptual structure to emerge from the data. In the next sections, I describe the research methods employed, present and discuss the findings, and summarize the main contributions and limitations.

2.1.3. Methods

The research design adopted is based on Podsakoff and colleagues (2016) recommendations for good conceptual development, including the stages suggested:

> *"(a) identify potential attributes of the concept by collecting a representative set of definitions, (b) organize the potential attributes by theme and identify any necessary and sufficient* – or shared ones – *[emphasis added], (c) develop a preliminary definition of the concept, and (d) refine the conceptual definition." (Podsakoff et al., 2016, p. 169)*

I started by collecting a representative sample of 209 definitions of SE because "in those cases where several different conceptual definitions already exist (…) conducting a thorough review of the literature, identifying the key attributes based on these definitions, and organizing these attributes into meaningful conceptual themes before developing their definition may be the most important activities." (Podsakoff et al., 2016, p.180). From the analysis of this sample of definitions, I extracted 15 themes that scholars use to define SE. Then, to understand how SE attributes are organized and why they are organized in the way they are, I conducted 22 semi-structured interviews with subject-matter experts and knowledgeable practitioners. This insider perspective also allowed me to learn how specific beliefs and experiences fuel controversial views on SE and influence the categorization emerging from real world situations. Finally, I went back to the literature to refine conceptual definitions.

2.1.3.1 Literature review and content analysis of 209 definitions of SE

I collected the sample of definitions used in this study in three different periods to ensure geographical and temporal representativeness. First, through snowball sampling and starting with definitions identified by Santos' (2012), I found Dacin et al.'s (2010) list of 37 definitions and to Zahra and colleagues' (2009) list of 20 definitions, adding their own definitions. In these works, I found two additional lists: Masseti's (2008) with 11 definitions, and Weerawardena and Mort's (2006) with 20. This initial sample of 60 unique definitions covered the period in which most conceptualization studies were published and contained the most prominent definitions. However, this list included definitions prior to 2012 and was potentially biased towards American perspectives. To circumvent these limitations, I considered two additional sets of SE definitions. Alegre and colleagues (2017) systematically reviewed 307 articles until April 2015, from which I added 94 non-overlapping definitions to the sample. Subsequently, I conducted a systematic review of articles from 2015 to September 2018 searching titles, abstracts and keywords for terms 'social entrepreneurship', 'social enterprise', and 'social entrepreneur'. I included articles from top journals important to SE research selected by Short and colleagues (2009) and those identified by Alegre et al. (2017), collecting 107 additional articles. Not surprisingly, the majority of scholars in this last period used earlier conceptualizations as working definitions. After adding 55 new definitions, the final sample comprised 209 unique definitions of SE.

To extract the key themes that characterize SE in the literature, I applied the Gioia method (Gioia et al., 2012). I analyzed the content of the sample of definitions using "a systematic approach to new concept development and grounded theory articulation that is designed to bring *qualitative rigor* to the conduct and presentation of inductive research" (Gioia et al., 2012, p. 15). I identified 651 first-order categories by exhaustively extracting key words from all definitions. Then, I reduced the data to 15 second-order theoretical-level themes based on the similarities and differences among first-order categories. Next, I revisited the complete articles that used the most prominent definitions, with the purpose of understanding the rationale behind distinct conceptualizations. I used NVivo software to facilitate the identification of relevant academic debates within each of the 15 themes.

2.1.3.2. Qualitative analysis of 22 semi-structured interviews

I complemented the academic viewpoint with 22 semi-structured interviews to gain an understanding directly from the actors themselves. The sample strategy promoted variation and depth to ensure the study's validity (Morse, 2015). I purposefully interviewed individuals closely involved with SE, with diverse backgrounds and roles, so that multiple angles could be captured. These included founders of award-winning social enterprises, head-managers of large SE public funding and CSR departments, CEOs of SE practitioner networks, and social innovation and SE academics and researchers (Appendix). Interviewees included 10 women and 12 men, from five different nationalities, with diverse professional experiences crossing all economic sectors, including nonprofit, business and public sectors. The interview protocol explored each respondent's background and degree of involvement with SE and then captured the interviewee's understanding of SE by asking him/her to compare projects that were directly linked to his/her experience and by explicitly delving into the attributes that were relevant in selecting those projects. Theoretical saturation was reached when no additional information was collected on SE attributes or views with new interviewees. The interviews lasted a total of 23 hours and 7 minutes and were recorded and transcribed in full, resulting in 390 A4, 12pt-font, single-spaced pages (Appendix). I used NVivo software to analyze each interview thematically and created a coding system to group citations that concerned similar themes across interviews, namely characteristics of SE. Finally, I built tables to synthesize data and identify patterns (Miles and Huberman, 1994).

2.1.4. Results and discussion

2.1.4.1. Identification of attributes

The content analysis of the 209 definitions is summarized in Table 3. I assessed the centrality and the level of controversy of 14 themes to prioritize the discussion, postponing the debate on the unit of analysis to the last stages of the conceptualization process. As a proxy of centrality, I used the frequency each second-order theme was explicitly referred to in the sample. I considered attributes less central if they were referred to in ten percent or less of the total sample. For the level of controversy, I classified themes as 'consensual' if most academics implicitly or explicitly agree in using them to characterize SE. Those themes in which I could observe a persistent academic debate with strong arguments for and against, were considered 'controversial'.

2.1.4.1.1. Central and consensual themes

Scholars often use terms such as entrepreneurial behavior, social goals, innovativeness, and proactiveness to define SE. I investigated these central themes to further specify SE properties and to disaggregate social and entrepreneurship themes in their distinct, precise meanings. Below, I provide a brief account of the academic discussion around each theme.

2.1.4.1.1.1. Social goals. Most scholars agree that having a social mission (Dees, 1998; Seelos and Mair, 2005), addressing social problems (Bornstein, 2004; Mair and Martí, 2006; Waddock and Post, 1995), or creating social value (Austin et al., 2006; Peredo and McLean, 2006) is a key attribute of SE. SE definitions often state that the mission needs to be social, but do not spell out exactly what a social mission is (Bruder, 2020). The understanding of what constitutes 'social goals' evolved over time. Initially, scholars specified social goals by normatively enumerating them (Fowler, 2000). Seelos and Mair (2005) proposed the widely accepted United Nations Millennium Development Goals as the ultimate goal of SE. Academics have also sought to define the social mission as opposed to the commercial entrepreneurship's economic orientation, arguing that SE creates social value

Table 3. First-order categories and second-order themes distilled from SE definitions

First-order categories (representative examples)	Second-order themes	Frequency (out of 209)	Classification
'address major problems', 'pursue social objective', 'pursuit of substantial and terminal values', 'social mission'	Social goals	184	Core and consensual
'innovative and systematic approaches', 'innovative activity', 'innovative solutions', 'new ideas', 'radical innovation', 'creativity', 'new programs, services, and solutions'	Innovativeness	76	
'entrepreneurial quality', 'entrepreneurial behavior', 'entrepreneurial strategies', 'entrepreneurial mindset', 'entrepreneurial organizations'	Entrepreneurial behavior	55	
'pursue opportunities ', 'identifying an opportunity', 'direct action', 'ability to recognize opportunities', 'proactiveness', 'recognize and take advantage of opportunities'	Proactiveness	46	
'earned income strategies to pursue social objective', 'combining the pursuit of financial objectives with substantive and terminal values', 'entity that pursues the double (or triple) bottom line'	Commercial activity	85	Core but controversial
'progressive social transformations', 'catalyze social change', 'primary mission is the social change', 'mission to change society', 'transformational change'	Transforma-tional change	38	
'sustainable social transformation', 'to sustain themselves financially', 'seeks sustainable change', 'sustainability of the venture', 'sustain social value'	Sustainability	33	
'surpluses are principally reinvested', 'revenues beyond costs are reinvested in the enterprise', 'reinvestment of surplus for community benefit', 'profits generated are used for the benefit of a specific disadvantaged group'	Profit reinvestment	27	
'unusually resourceful (…) undaunted by scarce resources', 'without being limited to the resources currently at hand'	Resourceful-ness	21	Non-core
'orthodox businesses', 'the business model', 'more rigorous application of known technologies or strategies', 'seeking business solutions', 'applies business principles'	Business-like approach	19	
'spread ideas as far as they can', 'widespread impact', 'grow social venture (...) expansion', 'large scale change'	Scalability	13	
'risk taking', 'accept an above average degree of risk', 'in the face of risk',	Willingness to take risk	9	
'strong ethical fiber', 'courage and fortitude', 'virtuous behavior', 'have social responsibility'	Virtuosity	9	
'collective dynamics involving various types of stakeholders in their governing bodies', 'collective actors', 'participatory nature'	Collective governance	6	
'activity', 'people', 'any person in any sector', 'enterprise', 'entrepreneur', 'process'	Unit of analysis		n.a.

while commercial entrepreneurship creates value for personal or shareholders' wealth (Austin et al., 2006; Mair and Martí, 2006). However, a clear dichotomy between social and economic value is complicated because economic goals are inherently social, as they improve social welfare through a better allocation of resources (Santos, 2012). Departing from previous tautology, Santos (2012) argues that SE addresses neglected social problems with positive externalities, which seems to exclude social goals that are the object of traditional charities or public institutions. Contrarily, other scholars argue that 'any social goals' should qualify as the domain of SE (Peredo and McLean, 2006). More recently, scholars argue that social goals are those that address societal grievances (Bruder, 2020) and create a positive change in the wellbeing of individuals disadvantaged in a specific life domain (Kroeger and Weber, 2014). To avoid the pleonasm resulting from using 'social' in defining SE, I conclude that wellbeing improvement goals are a central attribute of SE.

2.1.4.1.1.2. Entrepreneurial behavior. The manifestation of entrepreneurial qualities (Drayton, 2002; Thompson, 2002), behaviors (Hibbert et al., 2005; Mort et al., 2003), or strategies (Lasprogata and Cotten, 2003) is a central theme defining SE. However, entrepreneurship means different things to different people (Zahra and Wright, 2016). Entrepreneurship might refer to starting a business based on commercial activity, or, in a popular sense, borrowing business methods (Peredo and McLean, 2006), or from its French origin, accepting a challenging task, which involves innovativeness, proactiveness, and risk-taking (Dees, 1998). To avoid tautology and confusion, I henceforth refrain from using 'entrepreneurship' and related terms to define SE, disaggregating and discussing this theme in its specific meanings: first, innovativeness and proactiveness (subsections 2.1.4.1.1.3 and 2.1.4.1.1.4), then the controversial theme 'commercial activity' (subsection 2.1.4.1.2.1), and finally the non-central themes 'business-like approach' and 'willingness to take risk' (subsection 2.1.4.1.3).

2.1.4.1.1.3. Innovativeness. Scholars repeatedly use terms such as new programs, new services, new solutions (Korosec and Berman, 2006), new activities (Austin et al., 2006), new ideas (Bornstein, 2004; Drayton, 2002), or new combinations of resources (Mair and Martí, 2006) to define SE. Innovativeness, or the quality of introducing new ideas, reflects an important means by which new opportunities are pursued (Lumpkin and Dess, 1996; Zahra et al., 2009). Innovativeness in SE does not necessarily mean creating a new product or service, and is often associated with developing new models, approaches, methods of production, strategies, and ways of organizing in order to increase effectiveness and efficiency in tackling a social problem (Dees, 1998). Some authors imply that the resulting innovations should be radical (Dart, 2004) but most simply refer to innovations without mentioning their degree.

2.1.4.1.1.4. Proactiveness. Proactiveness means taking the initiative by anticipating and pursuing new opportunities (Lumpkin and Dess, 1996). Scholars frequently mention proactiveness as a central attribute of SE, referring to the direct action involved in pursuing an opportunity (Bornstein, 2004; Peredo and McLean, 2006). Earlier definitions viewed the social entrepreneur closer to a social activist, playing "critical roles in bringing about catalytic changes in the public sector agenda and in the perception of certain social issues" (Waddock and Post, 1995, p. 393). More recently, scholars argued that SE differs from social activism as it requires the creation of an organizational context (Mair and Martí, 2006) and direct action in solving a social problem (Martin and Osberg, 2007; Santos, 2012). SE opportunities differ substantially from commercial opportunities because the former are more prevalent and urgent, enable more accessibility and collaboration, and might require particularly innovative approaches (Zahra et al., 2009).

2.1.4.1.2. Central but controversial themes

Other themes were mentioned frequently in the definitions collected. However, unlike the previous ones, three other themes raise strong claims for and against them being necessary attributes of SE: developing commercial activities, seeking a transformational change, and reinvesting profits. Although a consensual outcome from the discussion of each theme could not be found, a clarification of the respective arguments is presented below.

2.1.4.1.2.1. Commercial activity. Assuming that entrepreneurship refers to starting a business with a commercial activity, some scholars argue that earned-income strategies and organizational hybridity (Doherty et al., 2014; Hockerts, 2006) are fundamental attributes of SE. Despite the increasing inclination towards hybrid organizational structures in SE (Hota et al., 2020), for other scholars, social enterprises, defined as organizations "whose goal is to achieve a social mission through commercial activities" (Pache and Santos, 2013, p. 972), are not the only type of organization to pursue SE goals. Dees (1998) recalls that "starting a business is neither necessary nor sufficient for entrepreneurship" (p. 2) and Dart (2004) suggests that requiring earned income models is a matter of ideology, because "from a rational perspective, social-sector innovations should all be equal whether they receive government funds or earn income" (p. 420). SE is also commonly associated with innovative funding strategies as a means to extend the organization's resource base, which may include sources of revenues other than commercial activities (Anderson and Dees, 2006), namely "'voluntary' or in-kind contributions and possibly donations and grant aid" (Chell, 2007, p. 13).

2.1.4.1.2.2. Transformational change. Some SE definitions refer to the importance of having a social objective (Harding, 2004) or social purpose (Haugh, 2006) without requiring the SE actor to be a change agent. In this view, any kind of social goal is sufficient to identify SE phenomena and "[t]here is no exact way of fixing the border below which the importance of social goals fails to qualify something as social entrepreneurship" (Peredo and McLean, 2006, p. 64). Other authors, however, argue that more than alleviating social needs, the social mission should seek to change the status quo, achieving a new equilibrium that will solve a social problem (Drayton, 2002; Dees, 1998; Martin and Osberg, 2007), implying structural shifts that transform behavior and promote systemic social change.

2.1.4.1.2.3. Sustainability. Sustainability, or the ability to continue or be continued for a long time (Oxford Dictionary), is often cited as an important attribute of SE. In defining SE, sustainability either refers to the organization's ability to self-finance its activities (Lasprogata and Cotten, 2003), or relates to provide lasting social benefits (Santos, 2012). Regarding financial self-sustainability, some scholars defend that business models based on commercial activities that can ensure independence from donors and subsidies are more self-sustaining. But if solving social problems is SE's greatest measure of success, the organization eventually brings about its own demise, making its financial sustainability and longevity no longer necessary (Santos, 2012). In this view, the organization is just a means to an end and is justified insofar as it creates social value (Dees, 1998). As for aiming at a sustainable impact, the goal of providing lasting benefits is sometimes seen as a distinctive feature of SE (Sharir and Lerner, 2006; Werawardena and Mort, 2006). More than a 'quick hit', social entrepreneurs are concerned with sustaining their impact by creating lasting improvements (Dees, 1998), which requires developing a solution that eventually eliminates the problem permanently (Santos, 2012). However, this attribute is also controversial as previously discussed. Both meanings of sustainability are included in previous controversial themes: 'self-sustainability' debates regarding financing mechanisms based on commercial activities or other financing forms, and 'impact sustainability' pertains to the discussion on transformational change.

2.1.4.1.2.4. Profit reinvestment. While some authors argue that profit or surplus reinvestment is important to ensure the legitimacy of SE (Harding, 2004), others claim that this is not always the case. Some hybrid organizations with commercial activities can legitimately decide to share profits with their shareholders or members as they may target private investment to ensure funding requirements that require profit sharing (Battilana et al., 2012). Relaxing the profit reinvestment requirement and allowing for profit distribution in SE is also aligned with arguments that SE organizations can have diverse legal and organizational forms, ranging from nonprofit to for-profit organizations (Austin et al., 2006). In this view, profit reinvestment is not a required attribute of SE.

2.1.4.1.3. Non-core themes

Six additional themes are less frequent in defining SE: resourcefulness, business-like approach, scalability, willingness to take risk, virtuosity and collective governance. While the first two attributes seem to enjoy general agreement, the last four find some contestation.

Resource scarcity in the SE context suggests that resourcefulness and a business-like approach are relevant features in SE (Dacin et al., 2010; Dees, 1998; Short et al., 2009). Unlike their business counterparts, social entrepreneurs leverage whatever resources available regardless of norms or conventions that usually limit more traditional sectors (Dees, 1998; Seelos and Mair, 2005). Profit-seeking firms typically mobilize resources that are valuable, rare, inimitable, and non-substitutable, which they seek to deny to competitors in order to obtain a competitive advantage (Grant, 1991). Social entrepreneurs, in contrast, often leverage abundant resources outside the organization’s boundaries (Austin et al., 2006), using them collaboratively with other players (Dacin et al., 2010). Although social and business entrepreneurs differ from each other, scholars recognize that social entrepreneurs also use a ‘business-like approach’, that is, the employment of business principles (Dacin, et al., 2010) or methods (Peredo and McLean, 2006) such as strategy, structure, norms, and values (Dart, 2004). This professional behavior is critical to ensure accountability to the constituencies served and for the outcomes created because the discipline of the markets in which social entrepreneurs operate is often not closely aligned with their social missions (Dees, 1998; Ebrahim and Rangan, 2014; Molecke and Pinkse, 2020). I henceforth refer to this attribute as 'professional accountability' rather than business-like approach to avoid confusions with the development of commercial activities.

Scholars have presented arguments for and against including scalability, willingness to take risk, virtuosity, and collective governance, as defining features of SE. First, scalability is appealing to some scholars in order to reach as many beneficiaries as possible (Bornstein, 2004) and legitimizing SE through success stories (Nicholls, 2010). However, other academics argue that in some cases "growth may not be the best approach to achieve the organization's goals or to have the greatest social impact" (Austin et al., 2006, p. 7) and that "many initiatives stay small and local, mirroring the tendency of many micro and small businesses not to grow into medium-sized enterprises" (Thompson, 2002, p. 415).

Second, although willingness to take risk is mentioned in a few SE definitions, some academics note that rather than 'willingness', social entrepreneurs exhibit tolerance to risk (Peredo and McLean, 2006) and "appear to adopt a highly cautious approach in dealing with risk" (Weerawardena and Mort, 2006). Additionally, rather than 'risk', social entrepreneurs face ambiguous scenarios and probabilities in which nascent markets and unknown structures complicate the ability to predict revenue streams (Weerawardena and Mort, 2006).

Third, a few scholars cite virtuosity as an attribute of SE because it focuses on solving social problems or donating profits to a cause rather than on pursuing a profit (Thompson, 2002). Others argue that "there is considerable need to research further the ethical context of social entrepreneurship and enterprise" (Chell et al., 2016, p. 621). Santos posits that "social entrepreneurs do not need to be defined as good or moral agents that want to help others"

(2012, p. 344) but rather as agents motivated to create value for society without concern for the amount of value they capture.

Fourth, a collective governance is a characteristic of SE referred to in a few conceptualizations (Bacq and Janssen, 2011), mirroring traditional nonprofit sector governance characteristics. However, academics argue that SE may take place within or across the nonprofit, business, or government sectors (Austin et al., 2006), or simply hold an undefined legal form (Chell, 2007), in which collective governance may not be a required feature.

2.1.4.1.4. Summary and discussion of stage 1

In sum, I observe that twelve attributes exhaustively cover the 209 definitions analyzed. Of these, six are central and more frequently cited: wellbeing improvement goals, innovativeness, proactiveness, commercial activity, transformational change, and profit reinvestment. Previous studies mention as limitations the tautology often involved in conceptualizing SE (Santos, 2012), the different meanings contained in 'social' and 'entrepreneurship' terms (Dees, 1998; Peredo and McLean, 2006), and the controversy of the attributes proposed (Choi and Majumdar, 2014; Saebi, Foss, and Linder, 2019). However, by systematically analyzing a comprehensive sample of SE definitions, I provide a more precise picture of the exhaustive list of SE attributes and how central and consensual each of them is in characterizing SE. The persistent controversy surrounding some central and non-central attributes points to the contested nature of the SE concept (Choi and Majumdar, 2014). This complicates a straight-forward, unbiased selection of attributes to conceptualize SE and requires additional attention to understand how they should be organized.

2.1.4.2. Organization of attributes

In the second stage of good conceptual development, Podsakoff et al. (2016) recommend identifying necessary and sufficient attributes or shared attributes across subsets of cases. In the sample of definitions analyzed, the twelve attributes were combined in many ways and no clear patterns were evident. To circumvent this difficulty, I conducted interviews with experts to understand which attributes they use to conceptualize SE and why they organized them in the way they do.

2.1.4.2.1. SE perspectives existing in practice

Findings point to the perception of SE at the individual level being securely rooted in personal beliefs. Participants sharing similar backgrounds, presenting a rich experience and a deep involvement in specific economic sectors, largely agreed on the same attributes to define SE. Individuals with different professional or academic experiences presented diverse SE definitions. Four SE perspectives emerged, reflecting the interviewees' belief systems (Table 4).

2.1.4.2.1.1. Business perspective. I observed that having a strong business background, through either professional experience or academic training, influences individuals to conceptualize SE using a business logic. These interviewees believe that the business sector is generally more effective than the nonprofit sector and that businesses can potentially become the engine to solve intricate social problems. Interviewees tend to agree that organizations dealing with social issues would benefit from learning business practices and from introducing market mechanisms. Social enterprises based on commercial activities and on market models are perceived as more efficient in dealing with social issues than traditional nonprofits. Interviewees holding this perspective typically argue in favor of seeking organizational sustainability through financial independence from donors, from the

Table 4. Belief system of interviewees and related controversial SE attribute

Perspective Interviewee #	**Underlying beliefs**	**Representative citations**	**Controversial attribute defended**	**Representative citations**
Business (Interviewees # 1, 2, 5, 11, 15, 16, and 18)	Businesses are more effective than nonprofits Commercial models provide financial self-sustainability SE is the process of creating a social enterprise	*"I think that maybe SE came out from realizing that either the nonprofits don't work as a model and/or there is just no funding."* #15 *"(…) it is self-sustaining, it does not depend on companies, donations, does it? The more you sell, the more social grants you can offer. It is a sustainable thing. It is a good example of SE."* #1 *"For me, [SE] is the creation of a company with the intention of solving a social problem through what is it does, of a business model, okay?"* #11	Funding mechanism based on commercial activity	*"It's SE, it's a sustainable business, which I think is one of the foundations of entrepreneurship."* #5 *"When I talk to people who do social entrepreneurship, (...), they're very focused on... to me, they are more focused on getting a product or a service that is going to be profitable to a certain extent."* #15
Nonprofit (Interviewees # 1, 4, 6, 7, 10, and 13)	Money corrupts SE is an old practice in the social sector	*"I actually don't think that business is very good, very cool. I think it corrupts, money corrupts, and the less money involved the better."* #6 *"I have doubts about that. The model in that it is the money or financial resources, that generate the project."* #13 *"I sometimes get a little bit scared, I confess, because it makes me remember the pre-2008 era, that thing in the financial sector which is fantastic and wonderful, and we build and we're going to make it, and created a bubble that burst."* #10 *"SE is a label that has been dealt with a lot within the European institutions and various other entities of diverse nature, but that is a concept… a very old practice."* #13	Profit reinvestment and collective governance	*"It is me collectively that makes it happen and I do not take any direct benefit, i.e., I'm not ...I don't invest 5000 euros to get those 5000. […] In other words, I'm not ... There are no capital gains, ok?"* #4 *"Some social business paradigms say it may be a lucrative business, but it responds to a social need. That to me is how companies should be, not social businesses."* #7 *"There are two or three issues that are important to me. One has to do with the governance model, that is, a model of governance has to be shared, in fact I don't believe in one that is only individual."* #4

Perspective Interviewee#	**Underlying beliefs**	**Representative citations**	**Controversial attribute**	**Representative citations**
Transform-ative (Interviewees # 1, 3, 8, 9, 12, 14)	Traditional social approach encourages the social problem The organization is not the primary focus	*"And many times, I think: we are here providing the fish instead of teaching how to fish, right? (…) In other words, we are encouraging this disgrace, isn't it? I think maybe SE is really about solving a problem."* #1 *"Everyone is very concerned about creating associations, but I think the problems is unresolved, which is to educate people here, to get them out of their situation."* #1 *"I think it's common that at certain stages or moments, we tend to look further for the continuation and, therefore, we almost seem to confuse the perpetuation of the organization with the need for its existence. Ideally, the organization exists to become extinct."* #3	Transformational change	*"And then, it's about going to the root causes. (..) So for me, that's it, focus on the problem, have a solution that cares about the impact."* #8 *"So, for me, the social entrepreneur is always looking to solve the problem and to be... and to become irrelevant. And if not, the person is not a social entrepreneur, is someone who wants to do social good and that's great."* #14 *"SE is usually associated with civil society social entrepreneurs who are able to take the initiative from a problem they identify and are able to unleash a set of steps to find an innovative solution to that problem."* #9
Develop-mental (interviewees # 12 and 20)	Social entrepreneurs exist across all sectors Uncritical transfer of principles from other contexts originates biases	*"I think entrepreneurship is a characteristic of people and therefore if a person is an entrepreneur, s/he is an entrepreneur anywhere, whether in public administration, in Santa Casa, or in her/his own institution or company." #12* *"One of the biggest misconceptions of social innovation and social entrepreneurship today is, from my point of view, not everyone does, but some do […] is the uncritical transfer of all language and all the principles of the business sector to the context of the nonprofit sector and to the field of social innovation. And when we import all the language and every principle, we naturally slip into a series of traps" #20*	None. Do not favor one view over another.	*"I want to solve the pain of your sickness, but I also want to treat it. The two [social welfare and transformative interventions] are needed, no one could give up any of them."* #20 *"Look, it's equally wrong to believe that all social problems are solved with profitable businesses and to think that the State will be able to finance the solution of all social problems."* #20

State and from other subsidies.

2.1.4.2.1.2. Nonprofit perspective. Interviewees who had substantial experience in the traditional nonprofit sector tended to regard market mechanisms and business in general with suspicion. Individuals endorsing the nonprofit perspective conceptualize SE by extrapolating some characteristics of the traditional social sector, namely reinvesting surplus and having a collective governance, as a way to legitimize SE efforts. Repeatedly, interviewees holding this perspective posit that SE has always existed within the traditional nonprofit sector and as such disagree that it is a new phenomenon. Interestingly, in accordance with the business perspective, these interviewees also defend that SE is an important means to seek financial and organizational sustainability. However, sustainability should be achieved through professional management and accountability. Commercial activities should ideally be kept separate from social activities and are viewed as a potential additional source of revenue to complement donations and State funding, and not as the main funding mechanism.

2.1.4.2.2.3. Transformative perspective. Individuals holding this perspective typically have launched projects to address social issues. They argue that SE should not seek to maintain the current social equilibrium, but rather aspire to solve societal problems by introducing whatever changes in society deemed necessary. Distinct from both the business and the nonprofit perspectives, which are often focused on the organization's financial sustainability, the transformative perspective views the organization as simply a means to an end and its demise potentially indicates that the social problem that motivated it has been resolved. The transformative perspective argues that the ultimate concern of SE should be the sustainability of the social benefits, rather than the sustainability of the organization itself.

2.1.4.2.2.4. Developmental perspective. Interestingly, the two interviewees (12 and 20) who were neutral about the controversial attributes of SE share an extensive experience in all three economic sectors. Arguing that SE is about restlessness and dissatisfaction that propels the actor to do things differently, these interviewees contend that this behavior is not limited to nonprofits and may occur within any economic sector. Additionally, this perspective is agnostic in defining SE using a specific funding mechanism, considering diversification and combination of funding sources part of the resourcefulness of a social entrepreneur. Finally, according to the developmental perspective, not only interventions that seek a transformational change should be considered SE, but also those that provide traditional social welfare, because both types of interventions complement each other and are needed in social development.

Wellbeing improvement goals was the only attribute of SE cited by all interviewees as a necessary condition, although not sufficient on its own, to identify members of the SE concept. All other attributes, especially those that still fuel lively debates, were implicitly or explicitly absent from at least four out of the 22 conceptualizations of SE (Table 5).

2.1.4.2.2. Summary and discussion of stage 2

Based on these results, conceptualizing SE through a universally accepted set of sufficient and necessary attributes is hardly possible, supporting the argument for the contested nature of SE (Choi and Majumdar, 2014). Definitions based on a classical approach necessarily leave out part of SE's conceptualization diversity. From the complicated network of similarities overlapping and crisscrossing among different definitions of SE, as in the example of 'games' provided by Wittgenstein (1953), I suggest that the SE concept has an underlying family resemblance structure. More precisely, I argue that SE presents a mixed (Barrenechea and Castillo, 2019) or hybrid (Goertz and Mazur, 2008) structure, combining one attribute common to all conceptualizations with other non-essential, substitutable attributes. In terms of attribute substitutability, a key condition of the family resemblance structure (Podsakoff et al., 2016), the attributes used to conceptualize SE are not substitutable

Table 5. Attributes used to conceptualize SE in each interview

Inter-viewee	*Consensual attributes*: Wellbeing improv. goals	*Consensual attributes*: Innova-tiveness	*Consensual attributes*: Proacti-veness	*Controversial attributes*: Commer. activity	*Controversial attributes*: Transform. Change	*Controversial attributes*: Profit reinvest.	*Non-core attributes*	
2	✓	✓	✓	✓		✗	• Professional • Scalable	
5	✓			✓			• Scalable	
11	✓		✓	✓			• Professional • Scalable	
15	✓	✓	✓	✓				
16	✓	✓		✓	✗	✗		
18	✓	✓	✓	✓			• Resourceful • Risk tolerant	***BUSINESS SE***
1	✓	✓	✓	✓	✓	✓	• Resourceful • Professional • Scalable	
21	✓			✓	✓		• Professional • Risk tolerant	
22	✓	✓	✓	✓	✓		• Professional • Risk-tolerant	***TRANSFOR-MATIVE SE***
3	✓	✓	✓		✓			
8	✓	✓	✓		✓			
9	✓	✓	✓	✗	✓	✗	• Resourceful	
14	✓	✓	✓	✗	✓	✗		
19	✓	✓	✓		✓			
4	✓	✓		✗	✗	✓	• Professional	
6	✓		✓	✗		✓		
7	✓	✓	✓			✓	• Professional	
10	✓	✓				✓		***NONPROFIT SE***
13	✓	✓	✓	✗		✓	• Professional • Virtuous	
17	✓	✓	✓	✗	✗	✓	• Professional	
12	✓	✓	✓	✗	✗	✗	• Professional	***DEVELOP-MENTAL SE***
20	✓	✓	✓	✗	✗		• Risk tolerant	

✓ Interviewee explicitly stated attribute IS required

✗ Interviewee explicitly stated attribute IS NOT required from the individual's standpoint. Each of the four combinations of central attributes identified seems to represent a distinct subtype of SE phenomena. However, in much the same way that 'nurturing mother', 'genetic mother', 'birth mother', and 'marital mother' are different among each other but belong to the same family concept of 'mother' (Goertz and Mazur, 2008), I suggest that the different SE subtypes belong to the same SE family resemblance conceptual space. Much of the conceptual confusion that prevails in the SE field results, I argue, from interchangeably using the same SE term to label each of the subtypes and the overall family resemblance concept. To avoid the fallacy of erroneously assuming that two different things are the same because they bear the same name, I propose using SE for the overall family resemblance conceptual space and the terms business, nonprofit, transformative, and developmental as prefix labels to identify each subtype.

2.1.4.3. Development and refinement of the concept

In the last two stages of the concept development process, Podsakoff et al. (2016) suggest generating a definition that describes the general nature of the concept and identifying relationships with other concepts that serve as antecedents or consequents. In family resemblance concepts, Barrenechea and Castillo (2019) "recommend turning to the subtypes to gain the differentiation that is lost by the inherent nature of these structures" (2019, p. 123). To do so, I went back to the sample of definitions and grouped them according to the essential attributes of each SE subtype. I then tried to disentangle some of the findings currently amalgamated in the literature under the same SE label, contextualizing them according to the underlying SE subtype of the corresponding study.

2.1.4.3.1. Conceptual refinement of SE subtypes

Based on Suddaby's (2010) framework for construct clarity, I synthesized the key elements of each SE subtype selecting exemplar definitions, determining the units of analysis mostly employed, identifying some relationships with other constructs, and suggesting the internal logic that provides consistency to each subtype (Table 6).

The two first subtypes, *business* SE and *nonprofit* SE, and the two last ones, *transformative* SE and *developmental* SE, reveal conceptual proximity. In the former two subtypes, the most common unit of analysis used in academic definitions is the organization and one of the key consequents of the SE construct identified is organizational sustainability. In the latter two subtypes, the organization does not seem as relevant: the most common unit of analysis identified is the individual or the process of creating social value, and one of the most important outcomes of SE in both subsets is the sustainability of social impact.

I suggest that the coherence and legitimacy of each SE conceptual subtype is supported by distinct institutional logics, which are “taken-for-granted social prescriptions that represent shared understandings of what constitutes legitimate goals” (Battilana and Dorado, 2010, p. 1420). The SE field has a particular complex institutional context (Zhao and Lounsbury, 2016), with disparate interests, identities, values, and assumptions embedded in prevailing institutional logics. Competing institutional logics explain different beliefs and behaviors (Thornton and Ocasio, 2008) that, in turn, may fuel distinct SE conceptualizations. Scholars have identified several competing institutional logics within the SE field, namely the commercial or market logic (Pache and Santos, 2013; Zhao and Lounsbury, 2016), the social welfare logic (Pache and Santos, 2013), and the developmental logic (Batillana and Dorado, 2010). Each of these logics seem to legitimize and provide coherence to the different emerging SE subtypes, as expressed in the interviews. I argue that the reconciliation of distinct views on the SE concept is not likely at the academic or practitioner levels, and that individuals’ cognitive and emotional investment in the prevalent institutional order explains its maintenance (Voronov and Vince, 2012).

Table 6. SE concept refinement per subtype

SE Subtype (# of definition)	**Attributes** (Frequency in subtype)	**Exemplar definitions**	**Unit of Analysis** (Frequency in subtype)	**Relationships with other constructs**	**Coherence/ Internal logic**
Business (85)	**Essential** Wellbeing improvement goals (85); Commercial activity (85)	“The process of identifying, evaluating and exploiting opportunities aiming at social value creation by means of commercial, market-based activities and of the use of a wide range of resources” (Bacq and Janssen, 2011); “The process of employing market-based methods to solve social problems” (Grimes et al., 2013)	Context (1); Organization (46); Individual (11); Process (7)	**Antecedents** Compassion (Miller et al., 2012); Unsatisfied social needs; **Consequents** Organizational tensions (Smith et al., 2013; Davies and Doherty, 2019); Financial sustainability (Doherty et al., 2014)	Market logic (Zhao and Lounsbury, 2016); Commercial logic (Pache and Santos, 2013)
Nonprofit (26)	**Essential** Wellbeing improvement goals (26); Profit reinvestment (26) **Relevant** Commercial activity (16)	“We define social entrepreneurship as a behavioral phenomenon expressed in a Non For Profit organization context aimed at delivering social value through the exploitation of perceived opportunities” (Weerawardena and Mort, 2006); “Social entrepreneurship means nonprofit organizations that apply entrepreneurial strategies to sustain themselves financially while having a greater impact on their social mission” (Lasprogata and Cotten, 2003)	Organization (16); Individual (3); Process (1)	**Antecedents** Turbulent environment (Weerawardena and Mort, 2006); **Consequents**: Sustainable organization (Weerawardena and Mort, 2006)	Social welfare logic (Pache and Santos, 2013)
Transfor-mative (30)	**Essential** Wellbeing improvement goals (30); Transforma-tional change (30) **Relevant** Innovative-ness (18)	“What defines a leading social entrepreneur? First, there is no entrepreneur without a powerful, new, system change idea. There are four other necessary ingredients: creativity, widespread impact, entrepreneurial quality and strong ethical fiber” (Drayton, 2002);	Context (1); Organization (1); Individual (13); Process (8)	**Antecedents:** Neglected social problem (Santos, 2012); **Consequents**: Sustainable solution (Santos, 2012); New social equilibrium (Martin and Osberg, 2007)	Developmental logic (Batilana and Dorado, 2010)
Develop-mental (76)	**Essential** Wellbeing improvement goals (76); Innovative-ness (76)	“Social entrepreneurship as innovative, social value creating activity that can occur within or across the nonprofit, business, or government sectors” (Austin et al., 2006); “A process involving the innovative use and combination of resources to pursue opportunities to catalyze social change and/ or address social needs” (Mair and Martí, 2006)	Context (2); Organization (8); Individual (22); Process (18)	**Antecedents:** Empathy (Mair and Noboa, 2006) **Consequents:** Long-term social impact (Dees, 1998);	Developmental logic (Batilana and Dorado, 2010)

2.1.4.3.2. The 'three-leaf clover' SE framework

There is a clear conceptual difference between the two most important subtypes – *business* and *developmental* SE – each representing over one-third of the total sample (after excluding those that did not include any term related to the theme 'social goals' and were thus considered ill-defined). The overlap between these two important subtypes is low: from 184 definitions, only 12 explicitly refer to both 'commercial activity' and 'innovativeness' themes. Scholars seem to recognize that, in addition to aiming at wellbeing improvement goals, cases are members of the SE concept if they either trade in the market or display innovativeness.

The *nonprofit* and *transformative* subtypes represent a smaller part of the sample (around 15 percent each) and show a considerable overlap (roughly 60 percent) with the *business* or *developmental* subtypes, respectively. It is thus questionable if the combinations of attributes identified in the *transformative* and *nonprofit* subtypes represent distinct ways to gain access to membership of the SE concept. I analyze below each case separately.

Regarding *transformative* SE, it is difficult to conceptualize an individual, organization, or process that transforms the existing current social equilibrium without displaying some sort of innovative activity, product, service, or approach. In addition, the internal coherence in both subtypes seems to be supported by the same developmental institutional logic. In that light, it seems more reasonable to conceptualize *transformative* SE as a particular subgroup of the *developmental* subtype, rather than a separate one.

Concerning *nonprofit* SE, on one hand, the combination of the attributes 'wellbeing improvement goals' and 'profit reinvestment' is not sufficient to identify SE phenomena, as most (if not all) traditional nonprofits already possess these attributes. On the other hand, 'commercial activity' and 'innovativeness' are not essential attributes of this subtype, because it would then become a particular subset of previous subtypes. Going back to the three potential meanings of ‘entrepreneurship’ – starting a commercial enterprise, accepting a challenging task, and borrowing business methods (Peredo and McLean, 2006) – the first two meanings correspond to the *business* and *developmental* subtypes. The data confirm that some interviewees arguing in favor of the nonprofit perspective recognize that having a professional approach and accountability is essential for traditional nonprofits to be recognized as SE. I thus conceptualize the third SE subtype as a combination of ‘wellbeing improvement goals’ and ‘professional accountability’. Noteworthy, ‘profit reinvestment’ is not a required attribute in this subtype, because organizations distributing profits hold commercial activities and thus are captured by the *business* subtype. As such, I propose dropping the label nonprofit and labeling this third SE subtype as *benefactor* SE, alluding to its underlying social welfare logic.

The three-leaf clover framework summarizes the findings (Figure 1). The center of the framework contains the central and consensual attribute shared by all SE subtypes – *wellbeing improvement goals*– and three petals depict the central and controversial attributes. The framework specifies the three ways identified to gain membership to the SE family resemblance concept. First, understanding entrepreneurship as the process of launching a commercial enterprise, *business* SE conceptualizations require a funding mechanism based on ‘commercial activity’. Second, viewing entrepreneurship as accepting the challenge to contribute to social development, *developmental* SE conceptualizations require ‘innovativeness’ and ‘proactiveness’ as essential attributes. Within this subtype, definitions that stress the relevance of a transformational change constitute a particular subgroup labeled *transformative* SE. Finally, assuming that entrepreneurship stands for adopting a professional approach to address a social issue, the *benefactor* SE subtype includes ‘professional accountability’ as an essential attribute.

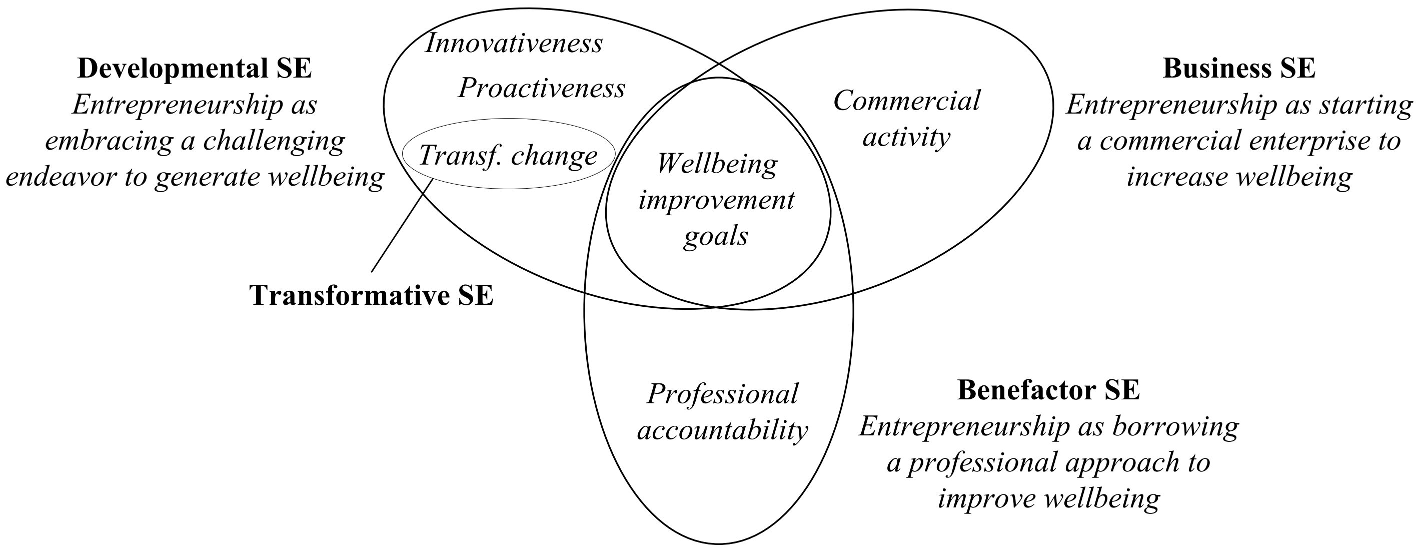

Figure 1. The Social Entrepreneurship three-leaf clover framework

2.1.4.3.3. Summary and discussion of stages 3 and 4

The *business* and *developmental* subtypes represent a significant proportion of existing conceptualizations, with clear conceptual boundaries and coherent internal logics. This is in line with evidence presented by Chliova, Mair, and Vernis (2020), who argue that the SE category has historically originated from two different schools of thought based on either the ‘commercial activity’ or the ‘innovativeness’ attribute. I observe that definitions within the *business* subtype focus mainly on the organization as the unit of analysis and share a specific concern with the organization’s financial sustainability and the tensions that result from a hybrid structure. Studies within the *developmental* subtype are mostly centered on the individual and the process of creating social value, placing greater emphasis on long term social benefits and the sustainability of the social impact. The other two subtypes – *benefactor* and *transformative* – have a substantial overlap with the *business* and *developmental* subtypes and confounding conceptual proximity. Based on logical reasoning, I conclude that *transformative* SE is potentially a subgroup of the *developmental* SE subtype.

2.1.5. Conclusions

The improbable reconciliation of prevailing distinct SE conceptualizations is a strong argument against an underlying classical conceptual structure. As a complex concept, SE is unable to be defined by stating necessary and sufficient conditions because there is no single set of characteristics that is common to all SE variants. I suggest SE holds a family resemblance conceptual structure and is exhaustively identified with twelve attributes that vary in level of centrality and controversy. Disparate definitions result from different attribute combinations and reflect diverse underlying belief systems embedded in distinct institutional logics.

The data evidences the prevalence of three SE subtypes. In addition to a common focus on *wellbeing improvement goals*, each subtype favors one additional attribute: *business SE* advocates a funding mechanism based on *commercial activity*; *benefactor SE* is based on a *professional accountability; and developmental SE* requires *innovativeness* and *proactiveness* as distinct features. Within this last subtype, *transformative* SE stresses the importance of a transformational social change. Research has mainly evolved around the *business* and *developmental* subtypes. While *business* SE seems to focus primarily on the organization, its financial sustainability, and the tensions that emerge from a hybrid form, *developmental* SE research is centered on the individual or process to create social change.

At an academic level, this work contributes to the SE literature in five ways. First, I untangle the fallacy that results from using the same SE term to label different combinations of attributes. Much confusion in the SE field is a consequence of erroneously assuming that different things are the same because they share the same SE label. This controversy has fueled long conceptual debates on the legitimate use of the SE term and ultimately led to the acquiescence of SE being an essentially contested concept. By exposing three different pathways to access membership to the SE conceptual space, the *three-leaf clover* framework aggregates distinct perspectives on the concept within the same conceptual space without ignoring existing variance, depicting a clear map to the SE territory and allowing for knowledge to accumulate and advance. Noteworthy, there may be other combinations of attributes that could also result in different SE subtypes. Despite efforts to ensure theoretical saturation in this exploratory work, I acknowledge that other combinations of attributes, namely non-central ones, constitute additional and less frequent ways to access the SE conceptual space.

Second, results compel researchers to acknowledge their assumptions and explicitly state the subtype under study. By turning to the subtypes, researchers gain the differentiation lost in the inherent nature of a family resemblance concept. This reference is key to contextualize conclusions and ensure consistency between the subtype chosen and the study's sample frame.

Third, findings caution researchers regarding a potential causal heterogeneity among SE subtypes. Although collectively part of the same conceptual space, SE subtypes may not be substitutable for causal purposes. For example, organizational tensions are potentially significant in the process of creating a hybrid organization under the *business* SE subtype, but probably less relevant in other entrepreneurial processes that do not resort to commercial activities to fund their social missions. Likewise, social innovation is an expected outcome of activities within the *developmental* SE subtype, but is not an obvious consequence of any social mission funded by commercial activities.

Fourth, this research pioneers the explicit application of the family resemblance conceptual structure in the management literature. This alternative structure may be successfully applied to other managerial concepts that struggle to fit the classical approach and digress in endless academic discussions.

Finally, this study calls attention to the fact that the SE field is broader than its *business* subtype, which has gained increasing popularity in academic research. I hope these conclusions contribute to further explore other SE subtypes, promoting new avenues of research that surpass organizational issues and further investigate, for example, SE's contributions to improving social wellbeing and creating a positive social impact.

The family resemblance structure illuminates why disagreement sometimes occurs. Individuals following different logics are predictably mutually suspicious and may benefit from taking stock of other perspectives on SE, building bridges and benefitting the SE ecosystem to which all contribute.

2.2. STUDY II. MEASURING SOCIAL ENTREPRENEURSHIP: A VALIDATION STUDY

ABSTRACT

Interest in investigating social entrepreneurship (SE) at scale using quantitative methodologies has fueled the emergence of a diverse set of measurement instruments. Acknowledging conceptual controversies, this study departs from the use of a classical conceptual structure and builds on a family resemblance structure of the social entrepreneurship concept. Results provide empirical evidence of distinct subtypes of SE by confirming different relationships among its key attributes. Findings also validate a measurement instrument for 'Social Development Entrepreneurial Orientation' within the *developmental* subtype, which views SE as the innovative use and combination of resources to pursue opportunities to catalyze social change or address social needs, irrespective of the funding mechanism adopted. Based on three studies with independent samples of 246, 830, and 1.089 social entrepreneurs, I present empirical support for construct and nomological validity of a 13-item scale and confirm theoretically described relationships with compassion to others, performance, and work engagement using established scales. The resultant instrument offers researchers a valuable tool to assess social entrepreneurship under a *developmental* conceptualization and to further probe relationships with other constructs.

2.2.1. Introduction

Defined as an entrepreneurial activity focused on addressing societal problems (Austin et al., 2006; Santos, 2012), SE is a growing field of practice and academic interest (Hu et al., 2020). However, empirical research based on large samples of social entrepreneurs and applying multivariate techniques is still scarce because the field still lacks sufficient foundations for large-scale quantitative studies (Sassmannshausen and Volkmann, 2018; Short et al., 2009). The absence of a unifying paradigm (Nicholls, 2010) and the contested nature of the SE concept (Choi and Majumdar, 2014) has given rise to operational definitions based on distinct definitions. Conceptualized as a cross-sector phenomenon, SE key attributes were described as having market-based revenues (Stevens et al., 2015; Kanampuzha and Hockerts, 2019) and/or displaying innovativeness (Bosma et al., 2015). Within the nonprofit sector, the Social Entrepreneurial Orientation (following the Entrepreneurial Orientation construct) has been specified as having three (Morris et al., 2011), four (Kraus et al. 2018), and five dimensions (Dwivedi and Weerawardena, 2018).

I share with these authors the belief that larger-scale, quantitative, causal studies of SE have the potential to help deliver social impact and contribute to solving societal issues in a more sustainable way. As such, this work aims to develop a robust instrument to measure SE phenomena based on literature recommendations for scale development. Nevertheless, I depart from previous conceptualizations of SE based on a classical structure, which requires a set of universally accepted attributes (Podsakoff et al., 2016). Acknowledging the contested nature of SE, I embrace its family resemblance conceptual structure, in which membership in a category is not defined by a case possessing a simple set of criterial features but rather by carrying shared attributes with other cases (Rosch and Mervis, 1975). This conceptual structure takes on board different perspectives of the concept and allows for considering and exploring the relationships of its consensual and controversial attributes identified in the literature.

2.2.2. Theoretical background: The concept of social entrepreneurship

2.2.2.1. Development of conceptual and operational definitions of SE

Defining SE has entailed an arduous work. After years of delving in conceptualization efforts, scholars suggested that "a universally accepted definition of social entrepreneurship is hardly possible" (Choi and Majumdar, 2014, p. 364). Despite unresolved conceptual controversies (Saebi et al., 2019), efforts to empirically assess SE are emerging based on different conceptualizations (Table 7).

The review of existing measures reveals five main concerns. First, some of the studies aim to operationalize constructs that have SE-related labels, but address concepts that do not reflect SE. For example, Stevens, Moray, and Bruneel (2015) advance a scale to measure the social and economic missions of a social enterprise. While the social and economic missions of an organization are commonly accepted as relevant attributes of SE, the organization's mission by itself is not sufficient to identify the presence of the phenomenon.

Second, despite some studies providing evidence of a thorough literature review, different articles propose divergent sets of attributes to conceptualize SE. On one hand, based on Weerawardena and Mort's (2006) conceptualization of SE, Dwivedi and Weerawardena (2018) argue that Social Entrepreneurial Orientation is a reflective construct with five attributes: innovativeness, proactiveness, risk management, social mission orientation, effectual orientation. On the other hand, Kannampuzha and Hockerts (2019) contend that Organizational Social Entrepreneurship is a formative construct with three components: social change intension, commercial activity, and inclusive governance. These

Table 7. Assessment of previous studies developing SE-related measurement instruments

Authors *Journal*	**Year**	**Construct name**	**1. Conceptualization**	**2. Development of measures**	**3. Model specification**	**4. Scale refinement**	**5. Validation**	**Critical Assessment**
Morris, Webb, and Franklin *Entreprener-ship: Theory & Practice*	2011	Entrepreneurial Orientation (EO) in the nonprofit context	"Entrepreneurial orientation is a construct used to capture the degree to which the firm's posture may be characterized as entrepreneurial versus conservative." (p. 947)	Not provided	Not provided (Attributes: Innovativeness Proactiveness Risk-taking)	Not provided	Not provided	Aim of study to discuss the application of the EO construct to the nonprofit context, not to provide a validated measurement instrument of SE.
Lepoutre, Justo, Terjesen, and Bosma *Small Business Economics*	2013	Social Entrepreneurship Activity (SEA)	"Social entrepreneurship [is] defined as entrepreneurial activity with the explicit objective to address societal pains" (p. 693)	Item generation based on GEM entrepreneurial activity measure Yes/ No/ Don't know/ Refused answer format	Spectrum of SE multidimensional construct provided, but not specified as reflective or formative	Not provided	Not provided	Measurement development does not follow academic procedures; Literature review is scant.
Stevens, Moray, and Bruneel *Entreprener-ship: Theory & Practice*	2015	Social and Economical Mission of social enterprises	"The social mission of social enterprises refers to value creation for the 'public good', whereas their economic mission refers to value creation for 'private gain'" (p. 1056)	Item generation based on literature review and existing scales; Content validity through pre-test with 35 social organizations (17 responses)	Multidimensional constructs of social and economic mission, with 3 dimensions each: goals, values, and identity	Sample of 484 social enterprises (270 responses) for CFA	Not provided	Social mission closer CSR (eg., 'Our organization is successful when it fulfills its philanthropic and charitable responsibilities'); Second sample or nomological validity not provided.

Authors *Journal*	**Year**	**Construct name**	**1. Conceptualization**	**2. Development of measures**	**3. Model specification**	**4. Scale refinement**	**5. Validation**	**Critical Assessment**
Dwivedi and Weerawar-dena *Journal of Business Research*	2018	Social Entrepreneurship Orientation (SEO)	"We conceptualize SEO as comprising behavioral characteristics of innovativeness, proactiveness, risk management, social mission orientation, sustainability orientation, and effectual orientation." (p. 32)	Item generation based on 6 dimensions and previous qualitative work with social entrepreneurs (31 items then 28) Use of 5-point Likert scale Content validity based on 3 expert academics Pilot testing with 26 SPOs	Multidimensional reflective construct with 5 dimensions: innovativeness, proactiveness, risk management, social mission orientation, effectual orientation	Pre-test with 124 social purpose organizations to conduct EFA and CFA	Survey with 507 nonprofit key informants; Assessment of CMB with marker variable; Nomological validity assessed with 2 new scales.	Conceptual controversy not discussed; Face validity of some items not evident (eg., social mission item "our philosophy guides everything we do in the organization"); Sample of nonprofits contradicts cross-sectorial arguments; Nomological validity with new scales.
Kraus, Niemand, Halberstadt, Shaw, and Syrja *International Journal of Entrepreneurial Behavior & Research*	2018	Social Entrepreneurship Orientation (SEO)	"Processes, practices, and decision-making activities that lead to new entry" (p. 979) and Social Enterprises "non-loss, non-dividend, market-based company, designed to address a social mission"	Item generation based on EO construct and Delphi study with 18 researchers Content validity tested through survey with 82 experts	Not provided Attributes Social innovativeness Social risk-taking Social proactiveness Socialness	Not provided	Not provided	Study does not aim to provide a validated scale; Literature review does not recognize conceptual controversy; Items lack consistency (eg., use of 'company' and 'organization').

Authors *Journal*	**Year**	**Construct name**	**1. Conceptualization**	**2. Development of measures**	**3. Model specification**	**4. Scale refinement**	**5. Validation**	**Critical Assessment**
Kannampuzha and Hockerts *Social Enterprise Journal*	2019	Organizational Social Entrepreneurship (OSE)	"[T]he actions of organizations aimed primarily at creating social impact for beneficiaries by engaging in commercial activity while using cooperative governance mechanisms that uphold the primacy of the beneficiary" (p. 291)	Item generation based on literature review (initial pool of 90 items) Content validity assessed through 5 reviews of SEs + 19 SE researchers	Formative construct with 3 components: social change intension (social mission and change making), commercial activity (earned income and paid employees), and inclusive governance (democratic decision-making and stakeholder participation)	Pilot test of 143 SEs for EFA: eliminated 56 items Sample with 3.145 social entrepreneurs (182 responses) for CFA of 1st order reflective components	Sample with 1.866 SEs (295 responses) to confirm CFA results and test reflective items on MIMIC model	Thorough literature review identified some attributes of SE but did not acknowledge conceptual controversy; Complex 3rd order formative construct validated with single item and a new reflective scale (social impact); Nomological validity using established scales not provided.

authors justify their conceptualization based on the ground-breaking works by Dees (1998) and Dees and Anderson (2006). In the presence of persisting conceptual controversies (Saebi et al., 2019) pertaining to an essentially contest concept (Choi and Majumdar, 2014), it is imperative to describe how the choice of attributes was decided and how a new measure relates to other operational definitions and to the overall construct. This will enable future researchers to choose the measurement instrument that best fits their research problem, while acknowledging the different existing ones and to position their contribution in the SE field.

A third issue relates to the procedures reported in developing the measurement instruments. Based on MacKenzie and colleagues' (2011) recommendations for scale development, the assessment of some studies reveals that the complete procedure was not concluded and some of these studies recognized that further research is needed to convey a validated instrument (Kraus et al., 2018; Morris et al., 2011). Two studies concluded the process of developing a measurement instrument and provide information regarding all required procedures (Dwivedi and Weerawardena, 2018; Kannampuzha and Hockerts, 2019). Moving forward, I argue that the use of pre-existing, established scales to measure theoretically plausible relationships with other constructs, rather than new scales, would provide further evidence of nomological validity.

Fourth, despite recommendations to assess social performance at the project level (Rawhouser et al, 2019), previous studies have mainly focused on the organization as the unit of analysis. Past SE research refers to different units of analysis: the process (Bacq and Janssen, 2011; Mair and Martí, 2006), the activities (Nicholls, 2008), the behavior (Weerawardena and Mort, 2006), the solution (Santos, 2012), the individual (Bornstein, 1998; Drayton, 2002), or the organization (Dart, 2004; Dwivedi and Weerawardena, 2018; Kannampuzha and Hockerts, 2019). While the individual level might be a too narrow focus because an individual seldom works alone when aiming at social impact, the organization is potentially a too broad unit of analysis because it may tackle more than one social issue and adopt different behaviors and practices in doing so. Using the organization as the unit of analysis is challenging due to the heterogeneous nature of organizations who might practice SE.

Finally, some previous studies have used samples of organizations with an easily identifiable nonprofit status. However, nonprofit organizations might represent "a narrower range of the attribute than would be expected of the population" (DeVellis, 2017) because SE is recognized as a cross-sector phenomenon (Austin et al., 2006). Other SE studies have relied on samples from reputed social networks, such as Ashoka or Skoll, which value large-scaled, successful organizations. Nevertheless, members of such organizations may provide an idiosyncratic context and thus fail to fit the requirements of an appropriate sample frame (Hinkin, 2005) to assess SE.

This study aims to provide a measurement instrument of SE that addresses the previously mentioned issues. In addition to following literature recommendations for a complete set of procedures for scale development (MacKenzie et al., 2011), this research took particular care to resolve concept ambiguities that "stall scholarly advances because they underlie miscommunications between collaborators, authors, and reviewers" (Molloy and Ployhart, 2012, p. 153).

Following recommended steps for good concept development (Podsakoff et al., 2016), Study I (*SE as a family resemblance concept*) presented twelve SE attributes extracted from content analyzing 209 SE definitions. The twelve attributes exhaustively identify SE but vary in level of centrality and controversy. The subsequent 22 interviews conducted with SE experts confirmed the controversial nature of some attributes, with *wellbeing improvement goals* as the only consensual attribute experts used to conceptualize SE. The additional five central attributes, which were frequently observed in the set of SE definitions analyzed, were implicitly or explicitly left out in some conceptualizations. Disparate SE conceptualizations resulted from combining the central consensual and controversial attributes in different ways, which reflected diverse underlying belief systems embedded in distinct institutional logics. Consequently, defining SE using a classical structure based on a universally accepted set of attributes is hardly possible. From the complicated network of similarities overlapping and crisscrossing among different definitions of SE, as in the example of 'games' provided by Wittgenstein (1953) or 'mother' described by Goertz and Mazur (2008), SE seems to hold an underlying family resemblance structure. In family resemblance concepts a case membership is defined by it sharing attributes with other cases. Acknowledging persistent conceptual controversies and departing from a classical structure assumed in previous research, this study adopts the family resemblance structure to conceptualize SE.

To refine family resemblance concepts, Barrenechea and Castillo (2019) "recommend turning to the subtypes to gain the differentiation that is lost by the inherent nature of these structures" (2019, p. 123). Three subtypes emerge in the SE conceptual space from understanding the meaning of 'entrepreneurship' in three distinct ways. First, the *business* subtype views SE as the process of starting a commercial enterprise to fund a social mission. Second, the *developmental* subtype understands SE as embracing the challenge to contribute to social development. Third, the *benefactor* subtype assumes that SE stands for adopting a professional approach to address a social issue. These subtypes share a common emphasis on the attribute of *wellbeing improvement goals*, but also contend additional, different features: the existence of commercial activities (*business* subtype), innovativeness, proactiveness, and transformational change (*developmental* subtype), and professional accountability (*benefactor* subtype) (Figure 1).

2.2.2.2. Central attributes of Social Entrepreneurship

Below, I briefly discuss the consensual but not sufficient attribute – *wellbeing improvement goals* – and the five controversial central attributes – *commercial activity*, *innovativeness*, *proactiveness, transformational change*, and *professional accountability*.

2.2.2.2.1. Wellbeing improvement goals

Scholars agree that having a social mission (Dees, 1998; Seelos and Mair, 2005), addressing social problems (Bornstein, 2004; Mair and Martí, 2006), or creating social value (Austin et al., 2006; Peredo and McLean, 2006) is a central attribute of SE phenomena. Social goals are often defined as opposed to economic objectives aiming at personal or shareholder wealth (Austin et al., 2006). Arguing that economic value is inherently social, Santos (2012) suggests that SE addresses neglected social problems with positive externalities. More recently, academics have specified social goals as those that address societal grievances (Bruder, 2020) and create a positive change in the wellbeing of individuals disadvantaged in a specific life domain (Kroeger and Weber, 2014).

2.2.2.2.2. Innovativeness

Beyond the ability to create new products or services, innovativeness in SE is often associated with developing new models, approaches, methods of production, strategies, and ways of organizing in order to increase effectiveness and efficiency in solving a social problem (Dees, 1998; Peredo and Chrisman, 2006). Resource scarcity pushes social entrepreneurs to leverage whatever resources available, regardless of norms or conventions that usually limit traditional sectors (Dees, 1998; Seelos and Mair, 2005), creatively tapping unconventional resources to ensure their social mission. Although innovativeness does not raise much open debate as a necessary attribute of SE, multiple definitions do not explicitly refer this feature (Certo and Miller, 2008; Defourny and Nyssens, 2008; Dacin et al., 2010; Bacq and Janssen, 2011; Stevens et al., 2015; André and Pache, 2016; Ramus and Vaccaro, 2017; McMullen, 2018). This significant absence suggests that innovativeness is not a necessary ingredient in some SE conceptualizations.

2.2.2.2.3. Proactiveness

In the entrepreneurship literature, proactiveness means taking the initiative by anticipating and pursuing new opportunities (Lumpkin and Dess, 1996). SE literature often mentions proactiveness as a necessary attribute, referring to the direct action involved in pursuing an opportunity to address a social problem (Bornstein, 2004; Mort et al., 2003; Peredo and McLean, 2006). Earlier definitions of SE viewed the social entrepreneur as being closer to a social activist (Waddock and Post, 1995, p. 393). More recently, scholars have argued that SE differs from social activism in that SE requires the creation of an organizational context (Mair and Martí, 2006) and direct action in solving a social problem (Martin and Osberg, 2007). Noteworthy, SE opportunities are different from those in the commercial context in that they must always contain an objectively existing need for social value creation independent from the social entrepreneur, which must be in place before SE opportunities can exist or be enacted (Hu et al., 2020).

2.2.2.2.4. Transformational change

Prominent conceptualizations of SE refer that, more than alleviating social needs, the social mission should aim at transforming the social context (Drayton, 2002; Dees, 1998; Martin and Osberg, 2007), solving a neglected social problem (Santos, 2012) and achieving a new social equilibrium (Martin and Osberg, 2007). In this view, the social mission should aim to transform the social system through implementing structural changes. Furthermore, this perspective defends that merely alleviating social needs without promoting a systemic change may contribute to endure social disgrace, fueling further beneficiary dependence. This transformational attribute is nevertheless controversial and contrasts with other views arguing that any social goal, irrespective of how prominent and relevant in the organization's mission, should be considered in the realm of the SE concept (Peredo and McLean, 2006). Defenders of this argument suggest that it is difficult to identify the threshold underneath which social goals are no longer relevant (Peredo and McLean, 2006).

2.2.2.2.5. Commercial activity

A significant number of SE definitions explicitly refer to the use of market-based models as a key characteristic of SE (Saebi et al., 2019; Grimes et al., 2013; Bacq and Janssen, 2011). Academics under this perspective defend that earned-income strategies (Boschee and McClurg, 2003) and organizational hybridity (Hockerts, 2006) are key to ensure financial and organizational sustainability. Acknowledging that organizational hybridity is a matter of degree (Shepherd et al., 2019), the question is whether commercial activities are necessarily the basic funding mechanism of SE, because to other scholars, "starting a business is neither necessary nor sufficient for entrepreneurship" (Dees, 1998, p.2). Dart (2004) suggests that "from a rational perspective, social-sector innovations should all be equal whether they receive government funds or earn income" (2004, p. 420). Social entrepreneurs resourcefully look for innovative funding strategies, which may include other sources of revenue, such as "'voluntary' or in-kind contributions and possibly donations and grant aid" (Chell, 2007, p. 13). In this vein, several prominent SE conceptualizations do not explicitly advocate the need to develop commercial activities in SE (Dees, 1998; Mair and Martí, 2006; Peredo and McLean, 2006; Santos, 2012; Weerawardena and Mort, 2006).

2.2.2.2.6. Professional accountability

One of the meanings popularly associated with entrepreneurship is the employment of business methods (Peredo and McLean, 2006). In the SE context, some academics refer the use of business principles (Dacin et al., 2010) or skills, and managerial practices, such as value creating strategies, organizational structures, values or norms (Dart, 2004) to define SE. Adopting a professional approach and ensuring managerial accountability to the organization's stakeholders is a theme less central in characterizing SE than previous ones. However, this attribute is particularly relevant in a context where a market discipline is absent or does not work well because the survival or growth of a social organization is not proof of its efficiency and effectiveness in improving social conditions (Dees, 1998). In these situations, often those in which SE thrives, accountability to constituents is the discipline that ensures the organization fulfills its mission. Driven by an increasing professionalization of the social sector, the demand for accountability has also been on the rise with stakeholders pressing social organizations to become more transparent about their fundraising and spending, and what they have achieved with the resources entrusted to them (Ebrahim and Rangan, 2014).

2.2.3. Methods and results: Instrument development and validation

2.2.3.1. Unit of analysis, sampling and research design

For the purpose of this research, I chose the social project as the unit of analysis, defined as an activity or set of activities developed to respond to a specific social problem. The adoption of the social project avoids a too narrow focus on the individual and a too broad perspective centered on the organization. The adoption of the social project as the unit of analysis is aligned with previous recommendations to measure social impact at the project level (Rawhouser et al., 2019).

Identifying a sample frame of respondents who "demonstrate the behaviors or possess the attitudes under examination" (Hinkin, 2005, p. 169) in the context of SE is challenging because there is no comprehensive, off-the-shelve database of social projects that fits the conceptualization adopted. Acknowledging this difficulty, I used a database of individuals who had attended SE educational courses with a duration of at least 2 full days at a partnering SE practitioner association, Instituto de Empreendedorismo Social (IES), located in Lisbon, Portugal, signaling their interest and potential work in the field. From an initial pool of 2.541 individuals, 2.254 had an email address and 1.415 provided a phone number. I reached out to all of the latter and eliminated 328 individuals, who confirmed they were either disengaged from a social project for over six months or declined participating in the study. I also updated 504 emails from respondents that were engaged in social projects, informing them of the upcoming study and online questionnaire. The final sample included 1.926 respondents. I used 246 contacts for the pilot test and then randomly divided the remaining 1.680 in a list of 830 for the second study and 850 for the third study. To increase the number of responses in the last study, I added a database with 239 emails from my School's network of social organizations.

Following literature guidelines for construct measurement and validation procedures (MacKenzie et al., 2011), and building on recent exemplar works (Cardon et al. 2013; Chandler et al., 2011; Strese et al., 2018; Tang, Kacmar and Busenitz, 2012), I conducted a three-step research procedure with independent samples. In a first step, that occurred between March and December 2020, I generated an initial pool of items and assessed content adequacy. To that end, I followed literature recommendations to use independent judges (Haynes et al., 1995), conduct cognitive interviews and formal debriefs (Presser et al., 2004), and run pre- and pilot tests. In a second step, which took place during January and February 2021, I conducted a survey on a sample frame with 830 potential respondents (raw response rate of 34%; 17.7% valid responses) to purify and confirm the item pool regarding dimensionality and reliability using confirmatory factor analysis (CFA) techniques. Finally, I launched a third study in March and April 2021 with a fresh sample of 1.089 respondents (raw response rate of 38%; 16.5% valid responses) to assess the model's validity. The response rates obtained were relatively high compared to other web-based surveys, particularly considering that the sample was comprised of small organizational units and upper-echelon managers, which typically present lower response rates (Bartholomew and Smith, 2006; Klassen and Jacobs, 2001). I ascribe these results to the effort of contacting respondents prior to sending the questionnaire and to the external endorsement provided by the partnering SE association (IES) and Nova School of Business and Economics (Bartholomew and Smith, 2006). Next, I describe each of the three studies and respective results in detail.

2.2.3.2. Study 1: Item generation and content adequacy assessment

2.2.3.2.1. Item generation

To ensure consistency between items and theory, I used a domain-sampling procedure (Nunnally, 1978) in line with my theoretical considerations for each of the five latent domains of SE. I assumed the level of commercial activity as an observable, self-reported variable based on the percentage of financial resources the social project acquires through trade of products or services, commissions, and licenses. I developed new items for the five latent variables based on keywords and expressions from the literature on SE and from 22 semi-structured interviews with individuals highly knowledgeable of SE conducted in the previous study. I complemented this list collecting additional items from existing scales. For *wellbeing improvement goals*, I used social mission items described by Dwivedi and Weerawardena (2018) and Stevens et al. (2015). For *innovativeness* and *proactiveness*, I included items from Dwivedi and Weerawardena (2018) and Hughes and Morgan (2007).

2.2.3.2.2. Content adequacy assessment

Content validity is observed when items are both relevant and representative of the dimensions they are supposed to measure (Chandler and Lyon, 2001). To ensure content validity, I started by reviewing the initial pool of items through open-ended interviews with five social entrepreneurs from my personal network, asking them to go through the list of items, commenting on clarity, relevance and representativeness, and adding new items as they saw fit (DeVellis, 2017). Next, a panel of three experienced academics with expertise in measurement techniques scrutinized the items to ensure technical quality of the indicators. Then, following content validation guidelines (Haynes et al., 1995), I reviewed the resulting pool of items with 14 independent judges, which included SE scholars and researchers. I asked each judge to rate items according to their relevance, representativeness, specificity and clarity using a 5-point Likert scale. Assuming inter-rater agreement is a latent factor and each rater's opinions are an imperfect representation of the ratings, I used CFA procedures to estimate the association, bias, and distribution of each rater with the "proto-rating" (Uebersax and Grove, 1989). Based on CFA results, I excluded four judges whose ratings presented loadings lower than 0.5 and retained ten judges (ICC=0.82, with a 95% confidence interval of 0.79-0.85), incorporating their feedback on the items.

2.2.3.2.3. Pre- and pilot tests

Following Presser et al. (2004) guidelines, I pre-tested the survey conducting 12 cognitive interviews and six formal debriefs with volunteering participants from my School's community network using the Qualtrics platform to provide a setting as similar to the real survey as possible (DeVellis, 2017). Finally, I launched a pilot study through Qualtrics to a sample of 246 potential respondents. From the 78 respondents (raw response rate of 32%), only 32 (net response rate 13%) fit the sample frame, working in a project with social goals within at least the six preceding months. Based on the results of the pilot test, I introduced one or two words to calibrate each of the 18 skewed items, without changing the meanings. Furthermore, I eliminated two items (*WBG6 and ACNT6*) that did not seem to relate well with other items within the same dimension, reaching a set of 26 items to measure SE's latent variables.

2.2.3.3 Study 2: Refinement

2.2.3.3.1. Model specification

The assumption that SE follows a family resemblance conceptual structure has several implications. In a family resemblance structure, Barrenechea and Castillo (2019) propose a method of grouping the existing attributes used in defining the concept to create the subtypes. According to the theoretical conceptualization of SE adopted, the six attributes identified group differently to form distinct SE subtypes. I specify the model in Figure 2.

Under the *developmental* subtype, SE is viewed as the process of embracing the challenge to contribute to social development. I suggest operationalizing the *developmental* subtype of SE with the Social Development Entrepreneurial Orientation (SDEO) scale, which results from grouping four of the six key attributes of SE: *wellbeing improvement goals*,

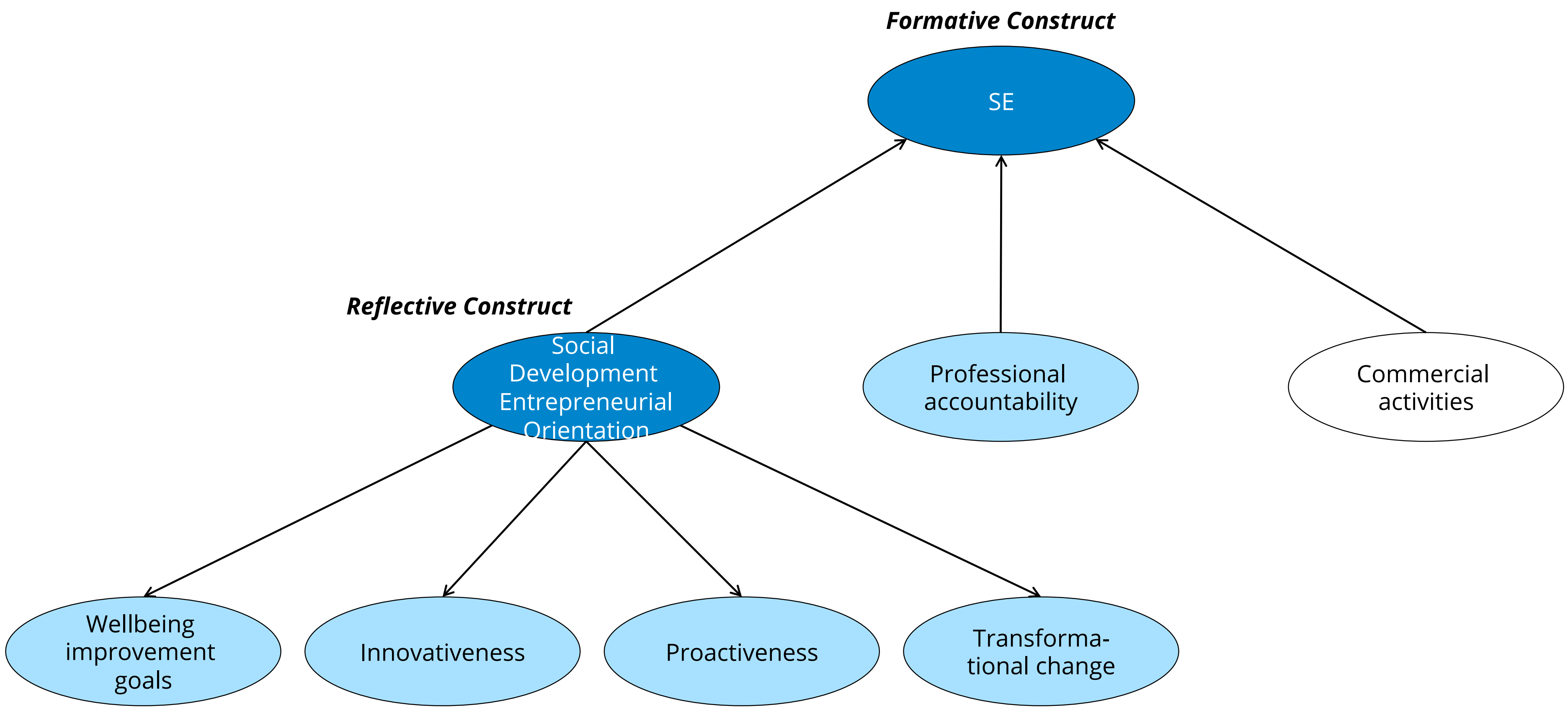

Figure 2. Model specification

innovativeness, *proactiveness*, and *transformational change*. To determine the reflective specification of the construct, I followed four criteria (Jarvis et al., 2003). First, I investigate the direction of causality and question if first-order variables are defining characteristics (formative) or manifestations of (reflective) the higher-order construct. In the case of SDEO, the stronger a social project embraces the challenge to create social value, the higher it is expected to simultaneously evidence wellbeing improvement goals, innovativeness, proactiveness, and a transformational change because these practices altogether reflect the willingness to more effectively address a social issue.

The second criterion relates to whether the first-order variables refer to different conceptual domains (formative) or if they share a common theme (reflective). Although first-order variables measure different facets of *developmental* SE, they share a common theme focused on solving a social issue. As such, these attributes are expected to covary with each other, which is the third criterion to determine the nature of the construct. For example, social projects that evidence higher innovativeness are expected to also present higher levels of transformational change. The final criterion is whether the first-order variables are expected to present the same (reflective) or different (formative) nomological nets. One example of a theoretically described antecedent of SE is compassion (Miller et al., 2012). Compassion encourages the exploration of perceived pain and its causes (Grimes et al., 2013), driving action and motivation to help (Strauss et al., 2016). In that vein, compassion is expected to drive not only wellbeing improvement goals and proactiveness to act upon perceived pain, but also innovativeness and transformational change to ensure the causes of pain are addressed.

The two remaining key attributes of SE – *commercial activity* and *professional accountability* – are not expected to covary with the previous SDEO attributes. Rather, when combined with the latter, they form the overall SE construct (Figure 2). Using the criteria previously described (Jarvis et al., 2003), I expect the overall SE construct to follow a formative nature. First, developing commercial activities to fund a social mission or being accountable to the social project's constituents is what causes a social project to be a member of the SE conceptual space through the *business* or *benefactor* SE subtypes respectively, rather than the result of their presence.

Then, these attributes are not conceptually interchangeable with SDEO or with each other, because each captures a different aspect of the SE conceptual domain. On one hand, pursuing opportunities for social development pertains to the willingness of addressing a social issue, while developing commercial activities relates to the willingness of having a financially sustainable project. These attributes are conceptually different and, when combined, may even trigger organizational tensions (Smith et al., 2013). On the other hand, professional accountability is particularly needed when the market discipline from potential commercial activities does not work (Dees, 1998). Although a heightened sense of accountability is desirable in SE (Dees, 1998), it is often driven by the pressure of external constituents (Ebrahim and Rangan, 2014) and does not necessarily reflect an intrinsic will to address social issues more effectively. As such, the remaining two attributes are expected to correlate independently from SDEO attributes.

Finally, it is possible to identify distinct antecedents and consequents of each attribute vis-à-vis the SDEO attributes. For example, while compassion has been identified as an antecedent of a social mission (Miller et al., 2012), it is less evident it may trigger the development of commercial activities or professional accountability. The formative specification of SE is aligned with that of Kannampuzsha and Hockerts (2019), who also defined Organizational Social Entrepreneurship as a formative construct with social change intensions and commercial activity as key attributes.

2.2.3.3.2. Sampling characteristics

From a sample of 830 contacts, of which 764 corresponded to valid emails, I collected 262 responses. I eliminated 127 of them from respondents that either were not engaged in social projects for over six months, left missing more than ten percent of the data concerning the new measures (Newman, 2003), or failed the careless responding screening. The final sample contained 135 responses, which accounts for an acceptable item-to-observations ratio of 1:5.2 (Hair et al., 2010). Tables 8 and 9 summarize key characteristics of respondents and social projects, respectively.

Noteworthy, over two-thirds of the respondents stated having a high-hierarchical executive or non-executive role, and a high level of knowledge concerning the social project, providing support for the reliability of key informant responses (Homburg et al., 2012). The vast majority of the social projects were already implemented (92%) and distributed along different development stages: still testing a concept (23%), stable (27%), defining expansion (25%), or in expansion (18%). Despite the majority of the social projects being included in organizations with a nonprofit legal format (80%), more than half of the projects acquired at least part of the financial resources through commercial activities (57%). In 55% of the cases, respondents reported that the organization in which the social project was included developed other activities beyond the project concerning the response, providing evidence that the difference between both units of analysis was clear for the respondents.

2.2.3.3.3. Instrument purification

Consistent with the model specification, I conducted CFA to assess the validity and reliability of the five latent variables (MacKenzie et al., 2011). I used the Maximum Likelihood Robust (MLR) estimator in Mplus to assess convergent and discriminant validity. Convergent validity exists when items intended to load together actually do so. All items

Table 8. Respondents' characteristics

		Study 2	***Study 3***
Gender	Female	70%	68%
	Male	30%	32%
Role in project	Board of advisers	15%	12%
	Chief executive	54%	62%
	Team member	24%	22%
	Other	7%	4%
Level of knowledge of project	Low	0%	1%
	Moderate	11%	10%
	High	89%	89%
Age	25 or less	2%	3%
	26 to 35	31%	18%
	36 to 50	51%	59%
	51 to 60	15%	16%
	61 and above	2%	5%

Table 9. Social projects' characteristics

		Study 2	***Study 3***
Establishment date	Mean	2013	2010
	Median	2016	2015
	Minimum	1934	1923
	Maximum	2020	2020
Project equals organization	Yes	45%	37%
	No	55%	63%
Legal form	Nonprofit association (incl. foundations, mercy houses, mutualist)	80%	78%
	Cooperative	11%	8%
	Forprofit company	7%	6%
	Public institution	2%	2%
	Not defined yet	0%	6%
Commercial activity (percentage of total financial resources)	None	43%	42%
	0 to 25%	25%	28%
	25% to 50%	8%	12%
	more than 50%	24%	18%
Number of employees	1 to 5	49%	36%
	6 to 10	20%	19%
	11 to 30	20%	25%
	31 or more	11%	20%
Stage of project	Pre implemented	5%	6%
	Implemented & testing concept	23%	17%
	Implemented and stable	27%	23%
	Defining expansion	25%	20%
	In expansion	18%	27%
	Other	3%	7%

Table 10. Loadings of retained items.

Item #	**Item text**	***Study 2***	***Study 3***
Wellbeing improvement goals (WBG)			
WBG1	We are fully dedicated to addressing a social problem.[a]	0.593***	0.370***
WBG3	We focus on a social issue that did not have a satisfactory solution.	0.601***	0.760***
WBG4	We respond to a social need that has not been successfully addressed by society.	0.682***	0.742***
WBG5	We are deeply committed to improving the wellbeing of a social group.[a]	0.631***	0.320**
Innovativeness (INOV)			
INOV2	We regularly implement innovative ways to address a social problem.	0.833***	0.844***
INOV3	We develop innovative solutions.	0.777***	0.816***
INOV4	We regularly introduce innovations.	0.800***	0.782***
INOV5	We create new ways of doing things.	0.754***	0.672***
Proactiveness (PROAC)			
PROA1	We identify opportunities to improve the accomplishment of our mission.	0.739***	0.621***
PROA4	We prepare ourselves to respond to unexpected events.	0.741***	0.731***
PROA5	We actively monitor external forces that affect us.	0.746***	0.718***
PROA6	We regularly examine new opportunities that can result in na increase in value for society.	0.696***	0.703***
Accountability (ACNT)[a]			
ACNT1	We are regularly made accountable for the results we achieve.[a]	0.689***	0.790***
ACNT2	We systematically monitor the results we achieve.[a]	0.842***	0.802***
ACNT4	We report externally the results we achieve.[a]	0.810***	0.686***
ACNT5	We frequently evaluate the fulfillment of the objectives we have defined.[a]	0.819***	0.743***
Transformational Change (TRNSF)			
TRNSF1	We want to make social transformations that last in time.	0.744***	0.660***
TRNSF2	We change the current way of doing things in society.	0.749***	0.670***
TRNSF3	We implement lasting social changes.	0.792***	0.729***
TRNSF5	We aim to solve a social problem in a definite way.[a]	0.667***	0.572***

*[a] Variable and items not included in final SDEO scale; * p<0.05; ** p<0.01; *** p<0.001*

presented significant factor loadings on the first-order factors they were theoretically supposed to load. I evaluated item reliabilities by assessing the magnitude of the respective factor loading. I eliminated two items (WBG2 and INOV1) that presented low factor loadings (<0.5). After theoretical considerations, four additional items presenting high modification indices were also eliminated iteratively (Table 10).

In the final model, each first-order variable included four items and presented acceptable Composite Reliability (CR) indices above .7 (Hair et al., 2010). To confirm discriminant validity, I calculated the Average Variance Extracted (AVE) for each first-order variable and confirmed that its square root was greater than the correlations between that variable and each of the other variables of the model (Table 11).

Table 11. CR, AVE, and correlations of first-order latent variables (Study 2)

	CR	**AVE**	**WBG**	**INOV**	**PROAC**	**ACNT[a]**	**TRNSF**
WBG	0.72	0.39	*0.63*				
INOV	0.87	0.63	0.46***	*0.79*			
PROAC	0.82	0.53	0.38***	0.47***	*0.73*		
ACNT[a]	0.87	0.63	0.30*	0.41***	0.68***	*0.79*	
TRNSF	0.83	0.55	0.49***	0.61***	0.55***	0.23*	*0.74*

*[a] Variable and items not included in final SDEO scale; * $p<0.05$; ** $p<0.01$; *** $p<0.001$*

I used several fit indices to evaluate the soundness of the model, focusing on those that are deemed more stable for smaller samples, such as the Comparative Fit Index (CFI) and the root mean square error of approximation (RMSEA) (Fan et al., 1999). I used an ideal target criterion of .95 and above of CFI and TLI to indicate good fit (Hu and Bentler, 1999) and followed standard practices to use a RMSEA of less than .06 and a standardized root mean square residual (SRMR) of less than .09 (Hu and Bentler, 1999, p. 28). The model with 20 items for the five latent first-order variables presented a good fit (Chi-squared/Df = 197.49/160 = 1.23; CFI = 0.957; TLI = 0.949; RMSEA = 0.042; SRMR = 0.058).

The four latent variables specified as manifestations of SDEO (WBG, PROAC, INOV, and TRNSF) enjoyed strong correlations. However, as predicted in the theoretical model specified, *commercial activity* evidenced non-significant correlations with WBG (r=-0.051; p=0.676), INOV (r=0.157; p=0.106), PROAC (r=-0.043; p=0.693), and TRNSF (r=0.126; p=0.287) and *accountability* (ACNT) presented low significance correlations with WBG (r=0.3; p=0.022) and TRNSF (r=0.023; p=0.022), suggesting these dimensions may belong to different constructs. I discarded commercial activity and proceeded to analyze the reflective nature of a second order construct, based on four and five latent variables. Reliability of the second-order construct was confirmed in both cases, with significant factor loadings above the minimum threshold (>0.5), CR of .80 and 0.81, and AVE of 0.50 and 0.46 respectively. Following recommendations to compare nested models (Edwards, 2001; John and Benet-Martinez, 2014; Williams et al., 2010), I used the Chi-squared difference test adjusted with the scaling correction factor for MLR estimator to evaluate the soundness of both higher order models. I discarded the five-variable model, which evidenced a significant difference (Chi-squared dif.=29.97; Df dif. =7.5; p<0.001) and confirmed the validity of the four-variable model, which presented a non-significant difference test vis-à-vis the respective first-order model (Chi-squared dif.=0.16; Df dif. =3.0; p=0.925>0.05) and good fit indices (Chi-squared/Df = 119.5/100 = 1.19; CFI = 0.968; TLI = 0.962; RMSEA = 0.038; SRMR = 0.057).

2.2.3.3.4. Careless responding, nonresponse bias, method bias, and social desirability

I screened careless responding, introducing the bogus item “For this item, please choose the option ‘Completely Agree’” and analyzing the response time and patterns of those cases that failed to correctly answer it (Meade and Craig, 2012). From this screening, I eliminated seven cases. Comparing the means and the variances of the scale items between early respondents (first and second waves) and later third wave respondents using t-tests did not reveal evidence for a nonresponse bias (Armstrong and Overton, 1977).

I was particularly careful in designing procedural remedies to reduce the effect of method biases inherent in surveys (Podsakoff et al., 2003). In addition to improving scale items to avoid vagueness and ambiguity through the process previously described, I followed two procedural remedies. First, I protected and guaranteed respondents' anonymity to reduce evaluation apprehension. Then, I randomized question order to control for priming effects whenever counterbalancing did not disrupt the survey's logical flow.

I included two variables in the survey to assess the presence of possible method biases (Podsakoff et al., 2003): the blue attitude scale (Simmering et al., 2015), a marker variable thought to be unrelated to SE's dimensions (Williams et al., 2010); and a short version of the Marlow-Crowne social desirability scale (Strahan and Gerbasi, 1972). Following the CFA marker technique (Williams et al. 2010) with the blue attitude scale as marker variable, I observed that the effect of method variance was not a concern: comparing the common and unconstrained method variance models with the baseline model, the chi-squared difference tests are non-significant (Model-C: Chi-squared diff=0.382, df=1, $p=0.54>0.05$; Model-U: Chi-squared diff=27.49, df=19.5, $p=0.09>0.05$). To assess the effect of social desirability in survey responding, I used the scoring key provided (Strahan and Gerbasi, 1972) to compute a total social desirability score. The correlation between this score and the SDEO construct is non-significant ($p=0.301$), confirming that effects of social desirability are not relevant.

2.2.3.4. Study 3: Validation

The third study aimed at cross-validating previous results with a fresh sample and to providing evidence of nomological validity, which refers to the degree that the new measurement instrument makes accurate predictions of other concepts in a theoretically based model (Hair et al., 2010). This study focused on providing evidence of nomological validity for the SDEO reflective construct, leaving out the SE overall formative construct previously specified for future research. I explored theoretically plausible relationships between the construct of interest and other concepts identified in the literature. Assuming a family resemblance conceptual structure has important implications in testing SE's theoretical relationships. One of the defining features of the family resemblance structure is attribute substitutability (Podsakoff et al., 2016), that is, subtypes differ from each other because they combine different attributes of the family resemblance concept. This characteristic hampers causal homogeneity among subtypes, which characterizes classical concepts (Barrenechea and Castillo, 2019). As such, I carefully investigated previous SE literature to define hypotheses for the SDEO construct.

2.2.3.4.1. Hypotheses

2.2.3.4.1.1. Compassion. In Strauss and colleagues' (2016) review of compassion definitions, the authors conclude that "compassion is seen as awareness of someone's suffering, being moved by it (emotionally and, according to some definitions, cognitively), and acting or feeling motivated to help." (2016, p. 17). While some authors refer to empathy as a determinant of SE intensions (Mair and Noboa, 2006; Hockerts, 2017), others refer to compassion as a specific form of empathy to be more accurate because it encourages one to explore the nature of perceived pain as well as its causes, thereby altering its cognitive structures (Grimes et al., 2013). Acknowledging that the purpose of SDEO is to pursue opportunities to catalyze social change and address social needs (Mair and Martí, 2006; Dees, 1998), scholars recognize compassion as a prosocial and emotional motivator of SE under the *developmental* perspective and explain the mechanisms through which compassion encourages action (Miller et al., 2012). As an antecedent of actions that address societal issues, I expect compassion to be an antecedent of SDEO.

H1. *Compassion has a positive effect on SDEO.*

2.2.3.4.1.2. Performance. Social entrepreneurs believe that their theory of change and accompanying organizational model is able to meet social needs in a superior way (Austin et al., 2006). Compared to commercial entrepreneurship, SE provides a qualitatively different context in terms of performance measurement (Hu et al., 2020) because the market–selection mechanisms in social organizations are relatively less intense (Austin et al., 2006) and the traditional potential for profitability metric is not valid for SE (Santos, 2012). The survival or growth of a social organization is also not proof of its efficiency or effectiveness (Dees, 1998). The literature refers the degree to which the social venture achieves its declared goals as an important criterion to assess SE performance (Sharir and Lerner, 2006). Rather than profit or customer satisfaction, social impact, defined as lasting changes in the lives of people and their societies (Ebrahim and Rangan, 2014), is the gauge of value creation (Dees, 1998). SE often focuses on serving basic, long–standing needs more effectively through innovative approaches (Austin et al., 2006). In this vein, I hypothesize that SDEO, based on innovativeness, is positively related with the perceived performance of the project's declared goals, specifically with social impact.

H2. *SDEO has a positive effect on performance.*

2.2.3.4.1.3. Work engagement. Work engagement is defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al., 2002, p. 74). Scholars acknowledge that organization members doing work that is challenging, creative, varied, and somewhat autonomous are more likely to feel engaged in their work (Kahn, 1990). Additionally, numerous studies point to the relevance of meaning and purpose at work as drivers of work engagement (Britt et al., 2001; Britt et al., 2007). Indeed, “people who say their work is meaningful and/or serves some greater social or communal good report better psychological adjustment” (Steger et al., 2012, p. 323). The social mission inherently present in SDEO suggests that project members involved in such activities will potentially perceive their work to be more meaningful as it contributes to an improvement of social conditions and thus may experience higher levels of work engagement. Particularly, social projects that are innovative and challenge the status quo, such as those that evidence higher levels of SDEO, may potentially have a positive effect on work engagement.

H3. *SDEO has a positive effect on work engagement.*

2.2.3.4.2. Measures

I used established scales to measure the relationships between the previously mentioned constructs and the construct of interest (Table 12). I followed literature recommendations for back translation protocol (Brislin, 1970). The items were initially translated by my supervisor and myself and compared between us to circumvent potentially overlooked translation errors, back translated by a professional, and tested during the initial cognitive interviews carried out with the target population of social entrepreneurs (Behr, 2017). These procedures implied minimum adjustments to the initial translation.

Despite the importance of performance measurement to SE research, particularly of social impact, standards for measuring it are underdeveloped on both theoretical and empirical grounds (Rawhouser et al., 2019). For the purpose of this study, performance of the social project is measured with two variables: the respondent’s satisfaction with goal

Table 12. Nomological validity scales

Antedents	**Loadings**
Compassion to others (Gilbert et al., 2017)	
Compassion engagement	
I notice and am sensitive to distress in others when it arises.	0.727***
I am motivated to engage and work with other peoples' distress when it arises.[a]	0.535***
I reflect on and make sense of other people's distress.	0.772***
I am emotionally moved by expressions of distress in others.[a]	0.418***
I am accepting, non-critical and non-judgemental of others people's distress.[a]	0.700***
I tolerate the various feelings that are part of other people's distress.	0.743***
Compassion action	
I think about and come up with helpful ways for them to cope with their distress.	0.700***
I direct attention to what is likely to be helpful to others.	0.753***
I take the actions and do the things that will be helpful to others.	0.767***
I express feelings of support, helpfulness and encouragement to others.[a]	0.695***
Consequents	
Satisfaction with goal attainment (based on Lages et al., 2008)	
The performance of this project has been very satisfactory.	0.879***
This project has fully met our expectations.	0.903***
I'm very satisfied with the way this project accomplishes its mission.	0.849***
Perceived comparative performance (based on Lages et al., 2008)	
Compared to other social project's aiming at the same social goal, this project better alleviates a social need.	0.797***
Compared to other social project's aiming at the same social goal, this project has greater social impact.	0.884***
Compared to other social project's aiming at the same social goal, this project has greater financial sustainability.	0.589***
Work engagement (Schaufeli et al., 2019)	
At my work, I feel bursting with energy.	0.808***
I am enthusiastic about my job.[a]	0.471***
I am immersed in my work.	0.854***

*[a] Item with low loading, removed from SEM analysis; * $p<0.05$; ** $p<0.01$; *** $p<0.001$*

attainment (**H2a**) and her/his self-assessment of perceived comparative performance with other social projects aiming at the same social goal (**H2b**). I adopted such measures for three key reasons. First, to circumvent the lack of objective performance indicators, scholars recommend the use of subjective indicators to measure performance (Alarifi et al., 2019; Sousa, 2004), which were found to be positively associated with objective measures in the commercial context (Baldauf et al., 2000; Dess and Robinson, 1984). Second, it is difficult to establish a fixed reference point across social projects, since success for one project may constitute failure for another (Lages and Lages, 2004). Third, there is an extreme complexity of time and logistics involved in measuring an ideal social value in terms of beneficiaries' perceptions of improved wellbeing (Kroeger and Weber, 2014) for a large sample of social projects such as this study's. I selected three items for each of the two variables based on *satisfaction with goal attainment* and *perceived comparative performance* items developed within the commercial context (Lages et al., 2008).

2.2.3.4.3. Confirmatory factor analysis, convergent validity, and discriminant validity

I collected 172 valid responses with less than 10% missing data (Newman, 2003) from a sample of 1,044 valid emails (16.5% response rate), after eliminating eleven careless responders. Assessment of nonresponse bias did not evidence concerns, as differences of means and variances between early and late respondents were nonsignificant (Armstrong and Overton, 1977). The respondents' characteristics of the third study were similar to those of the previous one: 72% of the respondents reported having a high-hierarchical executive or non-executive role in the social project, with 89% self-assessing a high level of knowledge about the social project in question (Table 8). In addition, the social projects reported were included in organizations with a similar legal format distribution compared to Study 2, with 58% of the social projects carrying out commercial activities (Table 9).

Results from conducting CFA with the new data confirmed convergent validity (retained items of final scale presenting factor loadings greater than 0.6), reliability (CR higher than 0.7 for all variables), and discriminant validity (squared-root AVE of each variable greater than correlations between it and other variables) (Table 13).

Table 13. CR, AVE, and correlations of first-order latent variables (Study 3).

	CR	**AVE**	**WBG**	**INOV**	**PROAC**	**TRNSF**
WBG	0.73	0.58	*0.76*			
INOV	0.86	0.61	0.53***	*0.78*		
PROAC	0.79	0.48	0.45***	0.67***	*0.69*	
TRNSF	0.73	0.47	0.60***	0.61***	0.60***	*0.69*

*Values obtained for final scale; * p<0.05; ** p<0.01; *** p<0.001*

I reconfirmed support for a second-order SDEO construct with four latent variables, all with factor loadings of 0.67 and above: *wellbeing improvement goals*, *transformational change*, *innovativeness*, and *proactiveness*. Additionally, the second-order variable evidenced acceptable reliability (CR=0.83) and convergent validity (AVE=0.53). Furthermore, Chi-squared difference test between first- and second-order models were non-significant (Chi-squared diff=5.44; Df dif=3.4; p=0.142>0.05) and the latter presented good fit indices (CFI=0.943; TLI=0.927; RMSEA=0.60; SRMR=0.057). Weak correlations between some SDEO variables and *accountability*, specifically with *wellbeing improvement goals* (0.201; p=0.026) and *transformational change* (0.287; p=0.01), reconfirm accountability as part of a different construct.

2.2.3.4.4. Nomological validity

I assessed the nomological validity of the SDEO construct by inspecting the significance of the relationships between the focal construct and the reflective latent constructs that were theoretically expected to be related using Structural Equation Modelling (SEM) techniques (Figure 3). Despite the use of established scales, I started by inspecting the measurement model with all variables. Acknowledging the small sample size and to ensure model parsimony, I removed items from the reflective constructs that presented low factor loadings (Table7), after which the model presented acceptable fit indices (Chi-square/Df =1.46; CFI=0.920; TLI=0.910; RMSEA=0.052; SRMR=0.064). Significant paths between the focal construct and validity measures confirm all four hypotheses (H1, H2a, H2b, and H3) and are evidence of SDEO's nomological validity.

2.2.4. Discussion and conclusions

2.2.4.1. Key findings and contributions

This study's contributions to the SE literature are both theoretical and methodological. From a theoretical perspective, I specify a comprehensive model of the SE family resemblance space that incorporates different conceptualizations of the phenomenon. To the best of my knowledge, this is the first study to attempt at operationalizing a concept with a family resemblance structure. The model specified acknowledges the existence of different SE subtypes, which result from aggregating the six main attributes of SE in different ways, specifying the relationships among them. I also provide empirical evidence confirming that the central attributes of SE hold divergent relationships, preventing them from being grouped within a unique reflective construct. For one subtype often referred to in prominent conceptualizations – the *developmental* subtype – I provide a validated 13- item scale to

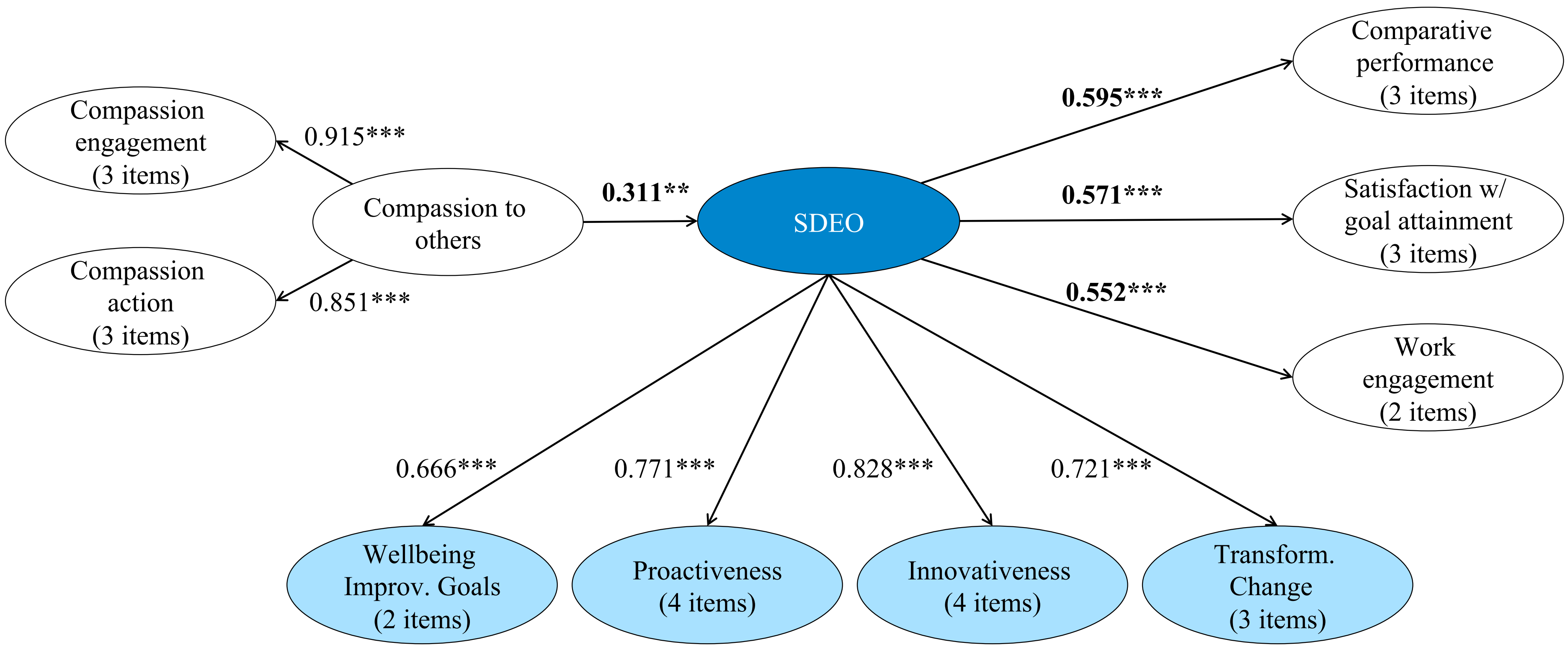

Figure 3. Structural Equation Model results

measure the Social Development Entrepreneurial Orientation (SDEO) construct. Results confirm that SDEO is a second-order reflective construct with four latent variables: *wellbeing improvement goals*, *innovativeness*, *proactiveness*, and *transformational change*. Finally, this study provides empirical confirmation of theoretically described relationships between SDEO and four established constructs: compassion to others, work engagement, satisfaction with goal attainment, and perceived comparative performance.

From a methodological perspective, by following rigorous scale development procedures and exemplary research, this study taps issues limiting previous research. First, the conceptualization of SE adopted is based on a comprehensive, systematic literature review that evidences persistent conceptual controversies and exposes prevailing debates related with each of the key attributes of SE. As such, I integrate and explore divergent perspectives on the concept. Second, I was particularly careful assessing item face validity using thorough procedures, including cognitive interviews, formal debriefs, quantitative assessment from 14 judges, and to pre- and pilot tests. Third, to avoid potential idiosyncrasies of off-the-shelve databases, I thoroughly updated and filtered a cross-sectorial sample frame of relevant key informants in high-echelon managerial positions that could provide accurate information. Fourth, the process of scale refinement tackled careless responding issues, and nonresponsive and method bias, employing literature recommendations for using CFA marker techniques and social desirability assessment. Finally, I was particularly careful in designing a theoretical network to confirm nomological validity using theoretically pertinent constructs and established scales and testing hypotheses using SEM techniques.

2.2.4.2. Avenues for future research

Unlocking the use of quantitative methodologies opens up innumerous exciting avenues to explore the SE field. Researchers may wish to test the relevance of other constructs theoretically related with SDEO, such as effectual behavior or collaborativeness. The results presented already evidence a significant effect of SDEO on the social projects' perceived performance. Future research using the SDEO scale may adventure into a more accurate social performance assessment by exploring indicators of wellbeing improvement at the beneficiary level. Results may finally empirically confirm that SE achieves its mission to tackle social issues in a more effective and efficient way than other activities targeting similar social goals. Another relevant avenue of research could identify and validate a parsimonious measurement instrument for the overall SE construct, including the level of commercial activities and professional accountability dimensions. Such construct may assess, for example, the effect of commercial activities and professional accountability in the performance of the social project, both at the social impact and financial sustainability levels.

An additional interesting stream of research may explore and deepen our understanding in SE's business models. Previous research has already suggested that the social entrepreneur's background and experience may influence the choice of the business model (Saebi et al., 2019). The emergence of rigorous measurement instruments such as the scale now put forward opens up the possibility to test theoretically developed hypotheses at scale.

2.2.4.3. Limitations and conclusions

The results provided hold two noteworthy limitations. First, despite the attempts to avoid an idiosyncratic sample frame, the database was limited to Portuguese respondents. I encourage researchers to confirm scale properties with an international sample frame to provide further empirical validation. Second, the final samples in each study were rather small, even after the efforts to improve response rates. Future research may explore larger samples that could provide additional leeway for multi-group analyses and identification of significant relationships between SDEO and other constructs with smaller effects.

This study offers an operational specification for the SE family resemblance concept, validating a 13-item scale to measure one of its prominent subtypes: *Developmental SE*. This study pioneers the operationalization of a construct holding a family resemblance conceptual structure, providing evidence that attributes defining such constructs may relate differently with each other. Results show that *wellbeing improvement goals*, *innovativeness*, *proactiveness*, and *transformational change* are manifestations of a latent second-order reflective construct labelled SDEO, related to the *developmental* subtype. However, the remaining two key attributes of SE – *commercial activities* and *professional accountability* – do not correlate well with the previous variables, which suggests that these dimensions are part of different sub-constructs of the SE conceptual space. Future research is needed to validate a formative index to assess a third-order SE construct, combining the two remaining attributes with the scale validated in this study.

2.3. STUDY III. DESIGNING INNOVATIVE BUSINESS MODELS IN SOCIAL ENTREPRENEURSHIP: THE PURPOSEFUL CO-CREATION STRATEGY

ABSTRACT

Innovative business models are promising tools to solve grand challenges, yet their emergence remains unexplored. Analyzing the design process of a matched-pair of social entrepreneurial business models privileging polar decision-making logics revealed that social entrepreneurs use multiple strategies and identified the purposeful co-creation as an effectual approach to business model innovation. Social entrepreneurs employ purposeful co-creation by mobilizing local stakeholders early on to collaboratively conceptualize the new business model aiming at a specific societal purpose that benefits all. Based on effectuation, purposeful co-creation potentially accelerates time-to-market and circumvents the endemic lack of means and knowledge through creatively leveraging stakeholders' underutilized resources. I observe that using effectuation affects not only the process, but also the substance of business model design because, compared to causation, the former is more permeable to stakeholder activities and local context characteristics.

2.3.1. Introduction

Innovative business models are powerful strategic tools to address grand challenges and global emergencies, such as the 2008 financial crisis or the spread of Covid-19. A business model “describes a system of interdependent activities performed by a focal firm and its partners and the mechanisms that link these activities to each other” (Amit and Zott, 2015, p. 331). The business model concept lies squarely at the intersection of entrepreneurship and strategy and is particularly important in SE, where entrepreneurs must often find new, original ways to create societal wealth (Demil et al., 2015). While the need for greater social and environmental sustainability can be a major driver of business model innovation (BMI), questions such as how managers can innovate their business models towards greater societal sustainability or how a broader notion of value including people and planet can be incorporated in business models have not been addressed sufficiently to date (Foss and Saebi, 2017; Massa, Tucci, and Afuah, 2017). The longitudinal case study research adopted in this study explores the strategies employed in the design process of innovative business models in the context of one of the grand challenges of our time: Food waste.

The United Nations estimates that 1.3 billion tons of food are wasted every year and has set ambitious targets within its 12th Sustainable Development Goal to significantly reduce food waste by 2030 (United Nations, 2020). In the aftermath of the global financial crisis, the increasing amount of food waste contrasted with severe economic difficulties and increasing poverty of many populations. In that context, entrepreneurial efforts emerged, and innovative solutions were developed to tackle this intractable social and environmental issue.

In Portugal, two SE organizations have merited international attention and recognition for their innovative solutions and significant impact. The cooperative Fruta Feia, which literally stands for “ugly fruit”, aims to help local, small and medium farmers commercialize

30% to 40% of their total produce that was wasted – fruits and vegetables that do not meet retailers' aesthetic standards and procurement norms. Its novelty goes much beyond selling what traditional retailers and farmers consider waste. Fruta Feia's innovative logistics provides consumers with edible fruit in fresher conditions and at half-price when compared to that of incumbent retailers. Simultaneously, Fruta Feia grants local producers a fair additional income. The nonprofit association Re-food started in March 2011 with its founder collecting excess food from local restaurants and pastries to provide local beneficiaries with a daily meal. Nowadays, Re-food is a nonprofit organization that deploys a 100% volunteer-based business model and counts with over 5,000 volunteers and 38 centers spread throughout the Portuguese territory. Besides its spectacular organic growth, Re-food has also inspired the emergence of other international projects, such as the Robin Hood Army, in India.

By contrasting the design process of the two business models, each favoring opposing decision-making logics, I uncover the 'purposeful co-creation strategy', a BMI strategy that may effectively contribute to design new business models aiming for a common purpose in contexts of severe resource scarcity and lack of industry expertise. Using the purposeful co-creation strategy, a social entrepreneur mobilizes local stakeholders to collaborate from a very early stage in designing the new business model that will benefit all. By employing this strategy, the social entrepreneur expands the network of 'who she knows' (Sarasvathy, 2001a), leverages underutilized resources and knowledge from engaged stakeholders, and designs the business model components to fit stakeholders' existing activities and other environmental constraints. Furthermore, despite contrasting strategies at the business model conceptualization stage (predominantly causal versus effectual), the matched-pair of polar cases selected provided surprisingly similar patterns in the design process that extended throughout implementation.

2.3.2. Theoretical background

2.3.2.1. Business models and business model innovation

Business models have been a popular academic topic in the commercial context, gaining particular momentum in the 1990s with the information technology boom (Demil et al., 2015; Massa et al., 2017). Acknowledging that scholars still do not agree on a single conceptualization (Zott et al., 2011), I build on Amit and Zott's (2015) business model concept and define it as a system of interdependent activities performed by an organization and its partners to create value. This conceptualization is suitable to study SE business models because it places an emphasis on value creation and on relationships between the focal organization and its partners, which are key in the SE context, while being less focused on value capture strategies, which are less relevant in SE (Santos, 2012).

Research in BMI has investigated changes to existing business models, particularly as a response of established firms to exogenous shocks, such as technology or regulation. BMI in this context refers to "novel, nontrivial changes to the key elements of a firm's business model and/or architecture linking these models" (Foss and Saebi, 2017, p. 201). Scholars describe three different approaches to implement BMI in established firms. First, the rational positioning school argues that managers deliberately analyze and choose new elements of their business models in face of exogenous shocks (Amit and Zott, 2001; Teece, 2010). Second, in contrast with the previous view, the evolutionary or trial-and-error learning school sees BMI as a result of ex-post experimentation and adaptation to environmental changes, rather than an ex-ante forethought (Chesbrough, 2010; McGrath, 2010; Sosna et al., 2010). Finally, realizing that these approaches fail to explain the conceptualization stage of previously inexistent business models, Martins and colleagues (2015) describe cognitive processes to ideate new business model schema in the absence of exogenous shocks. The generative cognition view theorizes that managers, based on previous knowledge, capture existing schema external to the firm and often to the industry to reorganize the dominant schema and conceptualize new business models (Martins et al., 2015).

At the entrepreneurial level, understanding of business model emergence is still scarce (Snihur and Zott, 2020), despite the entrepreneurial process often involving the creation of new business models (Moroz and Hindle, 2012). Scholars acknowledge the potential effect of contrasting decision-making logics on the entrepreneurial (Corner and Ho, 2010) and business model design processes (Andries, Debackere, and Van Looy, 2013). Decision-making logics either rely on causal strategies emphasizing planning and control, or on effectual approaches stressing flexibility, experimentation, and collaboration (Sarasvathy, 2001a; Reymen et al., 2015). Andries and colleagues (2013) expose the relevance of causation and effectuation logics in entrepreneurial firms, identifying two contrasting strategies to either select and commit to one specific business model early on, or engage in divergent searching paths developing a series of related business models simultaneously. These strategies assume pre-designed business models ready to be tested and are agnostic regarding the conceptualization stage of BMI. To that end, Snihur and Zott (2020) have recently found patterns and behaviors that explain how an entrepreneur conceptualizes BMI stressing cognitive and deliberate capabilities, namely industry-spanning search, complex system thinking and powerful centralized decision-making. Aligned with the generative cognition view, these practices suggest that the entrepreneur leverages accumulated knowledge to engage in causal thinking. Using such practices, the entrepreneur starts by defining an initial goal and then seeks the means to achieve that goal. Notwithstanding, effectuation theory (Sarasvathy, 2001a) posits that opportunities may also rise as entrepreneurs focus on a set of given means and then imagine possible ends. Under a ‘pure’ effectual strategy, goals emerge along the entrepreneurial process and thus “entrepreneurs and their partners may also end up creating harmful and problematic effects for the society they live in" (2001b, p. 8). This creates a puzzling consequence in the SE context: on one hand, the main focus is to create value for society (Santos, 2012) and, as such, effectuation may not be the ideal strategy; on the other hand, effectual reasoning seems particularly relevant in SE given the acute lack of resources (Austin, Stevenson, and Wei-Skillern, 2006). Thus, it is unclear how social entrepreneurs employ effectual reasoning and simultaneously ensure they don't end up harming society.

2.3.2.2. Social entrepreneurship as an adequate research setting to explore business model innovation

Unbounded by sector norms and traditions (Dees, 1998), SE organizations are more likely to emerge when previous pathways are inexistent (Dutta, 2019) and thus prone to innovate.

Definitions of SE have been developed in a number of different domains and a unified definition has yet to emerge (Short et al., 2009). Some scholars associate the concept with starting an enterprise based on commercial activities (Bacq and Janssen, 2011; Miller et al., 2012; Saebi et al., 2019), while others are agnostic to the funding mechanism used and define SE as the process of identifying and pursuing opportunities to create value for society by developing innovative solutions (Dees, 1998; Mair and Martí, 2006; Peredo and McLean, 2006; Santos, 2012). This paper assumes the latter perspective, previously labeled the *developmental* SE subtype. By focusing on innovativeness as instrumental to create value and expanding the concept of business models beyond the development of commercial activities, I open research to new combinations of resources that may yield innovative business models, different from those already explored within the traditional entrepreneurship literature.

Academics anticipate promising avenues in researching BMI in the context of social and environmental issues (Demil et al., 2015; Foss and Saebi, 2017; Massa et al., 2017), yet research on SE business models is still scarce. Several categorizations emerged to explain how different types of SE business models organize and sustain value creation. These categorizations are either based on exemplar cases (Seelos and Mair, 2005), on different sources of capital (Mair et al., 2012), or on two-by-two matrices stressing different features of SE business models (Santos et al., 2015; Saebi et al., 2019). Such typologies are suitable to understand the heterogeneity of SE business models (Saebi et al., 2019) and the distinct tensions that may arise in each case, which require different ways of management (Santos et al., 2015). However, they provide little information on the strategic process to design innovative business models in SE.

The literature also provides important insights concerning specific characteristics of SE that may influence the business model design process. First, more than their commercial counterparts, social entrepreneurs often lack resources during the start-up phase (Austin et al., 2006), which prompts them to employ novel types of resources and combine them in new ways (Seelos and Mair, 2005). Second, a distinguishable factor of social versus commercial entrepreneurs is the former’s ability to draw in partners and collaborate with others (Dacin, et al., 2010). In contrast with a more competitive paradigm, the collaborative context of SE allows organizations to gain access to new resources and knowledge they would otherwise have to develop or purchase (Yunus et al., 2010). Third, innovative solutions in the SE context are often designed based on local needs rather than on the centralized assumptions of large institutions about what needs to be done (Seelos and Mair, 2005). Finally, in SE the focus is on a sustainable impact rather than on a sustainable advantage and consequently, social entrepreneurs are more focused on value creation strategies than on value capture

(Santos, 2012). In contrast, commercial business models significantly emphasize the deployment of value capture strategies (Teece, 2010; Chesbrough, 2010).

A holistic understanding of how these specific characteristics of the SE context influence the business model design process is still missing. Research investigating BMI in the SE context has neither established clear links with the burgeoning literature on commercial business models, which suggests distinct strategies to how BMI occurs, nor assumed a process perspective. This study addresses these gaps and answers calls to shed light on how social entrepreneurs effectively co-create solutions to intractable problems with local stakeholders (Nason et al., 2020), and to better understand the microfoundations and mechanisms through which innovative business models are designed (Demil et al., 2015; Snihur and Zott, 2020), particularly those targeting social and environmental goals (Foss and Saebi, 2017; Massa et al., 2017). Specifically, I aim to answer the research question: *how do social entrepreneurs leverage decision-making logics to strategically design innovative business models?*

Next, I detail the research design, explain the sample strategy, and describe the methods used in data collection and analysis. After presenting the results, I discuss the findings, highlighting the potential contributions to the business model and SE literatures.

2.3.3. Methods

2.3.3.1. Research design

I use a comparative case study research design (Eisenhardt, 1989) based on a matched-pair of polar cases (Eisenhardt, *forthcoming*; Kellogg, 2012; Yin, 2009). As an inductive method, case study research design is particularly helpful for making progress on grand challenges because it excels in situations for which there is limited theory and at explicating processes and answering related "how" research questions (Eisenhardt et al., 2016; Langley, 1999). Comparing "'polar types' (…) leads to very clear pattern recognition of the central constructs, relationships, and logic of the focal phenomenon." (Eisenhardt and Graebner, 2007, p. 27). This design is appropriate to answer this study's research question because it allows for in-depth understanding of the decision-making process in the emergence of innovative business models.

This research adopted an embedded design (Yin, 2009). At the case level, I purposefully chose a matched-pair of SE projects. I define a SE project as the organizing unit that corresponds univocally to a single business model. The project evolves over time and may be restricted to a single entrepreneur at the initial stages, developing into a team and possibly, but not necessarily, into an organization. The project may also be a sub-set or component of an organization, much like the business unit represents a building block of a more complex firm. I consider each business model decision as the embedded unit of analysis in order to understand the reasoning behind the project's business model evolution along the entrepreneurial process.

2.3.3.2. Sample strategy

I chose a matched-pair of projects that emerged in very similar contexts: same geographic region (city of Lisbon in Portugal), same period (post-2008 financial crisis), aiming at the same environmental and social problem (food waste), choosing a nonprofit status, and having very limited access to resources. The two cases chosen are Portuguese with national scope that have merited international attention due to their innovativeness in tackling food waste. Both organizations have a single business model and thus fit the definition of a SE project. Fruta Feia is a consumption cooperative that uses a market-based model to sell fruits and vegetables that do not fit the conventional aesthetics and normative standards. Re-food is an association of volunteers that relies on abundant, underutilized resources to locally and directly source excess food from restaurants and other institutions to pre-identified disadvantaged local groups.

Despite similarities along these organizational dimensions, the two entrepreneurs are very different. Fruta Feia's 35-year-old founder is a novice entrepreneur who had never experienced launching her own organization, while Re-food's 67-year-old expert entrepreneur had created several businesses, namely related to the construction activity. This difference in the entrepreneurs' level of expertise points to the use of polar decision-making logics: while novice entrepreneurs tend to favor causation mechanisms, expert entrepreneurs privilege effectuation logics (Sarasvathy, 2001a). I administered the effectuation and causation 20-item scale (Chandler et al., 2011) to the founder of each project and confirmed the expected result (Table 14).

I chose cases favoring polar decision-making logics to understand how the process of designing BMI differs when causal or effectual logics are employed. Surprisingly, I found that the cases differ only at the initial conceptualization stage of the design process, when the social entrepreneurs developed a new business model. The subsequent adaptation stage of the design process (an extended period of time when the previously introduced business model components are re-configured), followed similar patterns in both cases.

2.3.3.3. Data collection

This research draws on historical data to build a longitudinal process in order to understand "how things evolve over time and why they evolve in this way" (Langley, 1999, p. 692). Data collection included multiple sources of evidence to ensure construct validity (Yin, 2009). I collected data from semi-structured interviews and direct observations to

Table 14. Results of Chandler et al.'s (2011) scale

Dimensions and respective indicators	Fruta Feia	Re-food
Causation (unweighted average of 7 items)	**6,4**	**4,3**
We analyzed long run opportunities and selected what we thought would provide the best social value.	*7*	*2*
We developed a strategy to best take advantage of resources and capabilities.	*6*	*7*
We designed and planned business strategies.	*7*	*6*
We organized and implemented control processes to make sure we met objectives.	*5*	*2*
We researched and selected target markets and did meaningful analyses.	*6*	*2*
We had a clear and a consistent vision for where we wanted to end up.	*7*	*7*
We designed and planned operations and marketing efforts.	*7*	*4*
Effectuation (unweighted average of 4 dimensions)	**4,7**	**6,1**
Experimentation (unweighted average of 4 items)	1,5	4,8
We experimented with different products and/ or business models.	*1*	*7*
The product/ service that we now provide is essentially the same as originally conceptualized (reverse coded).	*7(1)*	*5(3)*
The product/ service that we now provide is substantially different than we first imagined.	*2*	*3*
We tried a number of different approaches until we found a business model that worked.	*2*	*6*
Affordable loss (unweighted average of 3 items)	7,0	5,7
We were careful not to commit more resources than we could afford to lose.	*7*	*6*
We were careful not to risk more money than we were willing to lose with our initial idea.	*7*	*5*
We were careful not to risk so much money that the organization would be in real trouble financially if things didn't work out.	*7*	*6*
Flexibility (unweighted average of 4 items)	6,8	7,0
We allowed the business to evolve as opportunities emerged.	*7*	*7*
We adapted what we were doing to the resources we had.	*7*	*7*
We were flexible and took advantage of opportunities as they arose.	*7*	*7*
We avoided courses of action that restricted our flexibility and adaptability.	*6*	*7*
Pre-commitments (unweighted average of 2 items)	3,5	7,0
We used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty.	*5*	*7*
We used pre-commitments from customers and suppliers as often as possible.	*2*	*7*

(1–not agree at all to 7–totally agree)

complement historical evidence provided by media articles, websites, videos, and archival documents (Table 15).

I interviewed Fruta Feia and Re-food founders often and extensively during the one-year data collection period. I also interviewed volunteers and employees who were most involved in the decision-making process of crafting the respective business model since the beginning. Finally, I interviewed suppliers and key informants at incumbent organizations to enable a rich comparison between the projects' business model and existing ones from incumbents. All 27 interviews were recorded and fully transcribed, resulting in a total of 486 A4 single-spaced pages.

The data collection took place in three different stages. The first stage occurred between March and July 2017. During this stage, I gathered public data, including media articles, websites and videos, and conducted explorative, semi-structured interviews to understand the context and the business model of each project. Realizing that both business models had evolved significantly over time, I went back to the field. During the second stage, from September 2017 until January 2018, I conducted semi-structured interviews with key informants to map the timeline of the entrepreneurial process for each project. Each timeline included about one hundred events since the inception of the initial idea until January 2018. For each project, I asked interviewees to guide me through the respective timeline. At the end, I corrected and complemented the timeline, adding rich descriptions of the thought-process and mechanisms used in each decision affecting a business model component. In this second stage, I also collected data from direct observations and archival documents to complement and contextualize interviews and previously collected data. In a third stage, between January and March 2018, after completing the analysis, I returned to the field to confirm for each project my understanding of the respective timeline of events, the decisions

Table 15. Summary of the data collected

		Fruta Feia	Re-food	Total
Interviews	Number	16	11	27
	Total A4 single-spaced pages	260	226	486
	Total time	15:14:19	13:40:25	28:54:44
Media articles	Number	38	23	61
	Total A4 single-spaced pages	66	36	102
Archival documents	Number	16	10	26
	Total A4 pages	391	281	672
Videos	Number	42	5	47
	Total time	4:54:23	2:00:05	6:54:28
Direct observation (hours)		28	50	78
Other data used: *Webpages, facebook accounts, pictures*				

made that affected the corresponding business model, and the reasons behind each decision. Altogether, I identified 209 events in both cases, of which 126 resulted in business model design decisions.

2.3.3.4 Data analysis

I used the NVivo version 11.4.2 (2018) to analyze the transcribed interviews and qualitative data analysis techniques to synthesize them, identifying sequences of events and common themes (Miles and Huberman, 1994). To analyze the cases, I assumed both static/cross-sectional and dynamic/process perspectives of the business model (Demil and Lecocq, 2010).

Using a static perspective, I compared the current business model components of each project to existing business models in the industry to confirm the innovativeness of the cases chosen. Previous studies (Andries et al., 2013) analyzed data using business model components that privileged value capture strategies (Morris et al., 2005), more suited to the commercial context chosen. To ensure adequacy of business model concepts with the SE context, I drew on Amit and Zott's (2012) more recent work describing three business model components: the *content*, which encompasses the goods exchanged, the activities performed, and the resources and the capabilities required; the *structure*, which includes the parties involved, the links between them, the sequence of activities, and the exchange mechanism; and, the *governance*, which identifies control flows and the legal format. The comparative analysis uncovered surprising elements of the business model of each case that support the projects' innovativeness and popularity.

Next, realizing that the business model design was not a one-time effort, I assumed a dynamic perspective and investigated the design process of each case. I built a timeline of events and, taking the decision as the embedded unit of analysis, I identified 126 decisions that triggered changes on one or more business model components. I classified each decision as using causation, effectuation or a hybrid combination of both logics, based on the five heuristics provided by the literature (*causation vs. effectuation*): (1) begin with a given goal or a set of given means; (2) focus on expected returns or affordable loss; (3) emphasize competitive analysis or strategic alliances and pre-commitments; (4) exploit pre-existing knowledge or leverage environmental contingencies; and (5) try to predict a risky future or seek to control an unpredictable one (Dew et al., 2009; Perry et al., 2012). Additionally, I looked for patterns that could potentially explain how business model design is influenced by the decision-making logic used. To that end, I investigated relationships between the decision-making logic and respective design antecedents based on the detailed descriptions provided in the interviews. I followed the typology of Amit and Zott (2015) who identify four business model design antecedents: *goals*, which define the aim of the business model in how to create and capture value; *templates* from incumbents or others, from which the designer can draw inspiration; *stakeholder activities*, given that designing a business model involves system level thinking; and, *environment constraints*, which refer to conditions imposed by external contingencies, such as the economic, legal, and cultural contexts.

2.3.4. Results

2.3.4.1. Static perspective: Identification of BMI

I compared the current business model of each project with existing food rescue business models that use similar exchange mechanisms because, by selecting its business model, each organization defines the characteristics of the industry it will face (Demil et al., 2015). Next, I detail the innovations identified in each case (Table 16).

Using a market-based exchange mechanism, Fruta Feia's business model was

Table 16. Identification of BMI in Fruta Feia's and Re-food's business models

	Traditional retailers' food rescue model	Fruta Feia's model	Re-food's model	Traditional charity's food rescue model
Content	• Left-overs of diverse, standardized produce (core) or unstandardized products (sporadic) • Activities to decrease costs (eg. stock optimization) or increase revenues (transformation processes, tax-benefit donations) • Professional workers only	• Only seasonal produce that do not meet aesthetic standards • Exact fit of amounts bought and sold • Same day logistics eliminate stock and waste – food collected and sold the same day • Professional management + 2h-week volunteers (basket assembling)	• Prepared, perishable food mainly • Collection at local, micro food sources (pastry shops, restaurants, schools, hotels) • Direct distribution to local beneficiaries • 2h-week volunteers (for operational work) + 6h-week volunteers (management team)	• Unprepared food mainly • Collection at large food retailers and companies • Indirect distribution to social organizations that support final beneficiaries • Full-time professionals and volunteers
Structure	• Profit seeking price policy • Transactional relationships fitting profit goal	• Fair price policy • Relationships based on trust and close bonds	• Daily, local, micro model based on leveraging abundant, underutilized resources	• Centralized model based on corporate philanthropy and resource raising campaigns
Governan-ce	• For-profit companies • Hierarchical, professional governance	• Nonprofit consumption cooperative • Informal, auto-managed governance	• Nonprofit association • Local initiative with central entity for administrative activities	• Nonprofit association • National federation of regional associations, connected to international entities

compared to the existing food rescue models of large food retailers. I identified innovations at the content, structure and governance levels of Fruta Feia's business model. Concerning the *content*, Fruta Feia's most evident innovation is to distribute exclusively seasonal fruits and vegetables that are typically discarded by incumbents, because they do not meet aesthetic and normative retail standards although they are in perfect consumption condition. Some large retailers have also recently started buying and selling non-standardized produce, although these events are sporadic and not part of their core business model. However, Fruta Feia's most interesting innovation lies in its logistics process. Unlike existing models, Fruta Feia collects at local producers' premises the exact amount of product sold on the same day to a group of associated consumers using a pre-defined basket composition, eliminating stock and waste. In contrast, food retailers use a traditional push logistics model, which consists of buying a wide variety of fruit and vegetables that meet aesthetic standards from local and global producers, stocking the produce in regional/ local warehouses until they are displayed for unpredictable consumption. The products that get deteriorated and fail to meet freshness standards are then subject to food waste reduction processes. In terms of *Structure*, the relationship between Fruta Feia and its producers is based on trust and close bonds, which contrasts with a transactional relationship in food retailers' models. The exchange mechanism at Fruta Feia, although based on a market model as the one in incumbents' business models, promotes fair trade for both consumers and producers, who are the ultimate beneficiaries. The food rescue model at food retailers has ultimately a profit goal, either through decreasing costs by optimizing logistics and reducing waste, or increasing revenues through product transformation, tax benefit donations, or sale of unstandardized produce at significantly lower prices. In terms of *governance*, Fruta Feia adopted a combination of nonprofit status with a consumption cooperative form, contrasting with the for-profit status of incumbent models organized as traditional commercial firms. Governance at the Fruta Feia centers is informal and teams are mainly auto-managed, which contrasts with that of food retailer models, traditionally based on hierarchical control flows. Interestingly, management of volunteers at Fruta Feia leverages web-based schedules, in which each volunteer assumes weekly time slots matching self-availability with the amount of work needed to accomplish de activities.

Regarding Re-food, I compared its business model with that of traditional nonprofit organizations that rescue food, namely the Food Bank. *Content-wise*, the traditional charity model is a B2B organized in a ‘super urban’ model. This consists of collecting unprepared food at large retailers or corporations and delivering it to social organizations that then distribute it to their beneficiaries. Although collections and distributions are part of the day-to-day operations, they are often weekly or even monthly performed for each partner. In contrast, Re-food’s model has been coined by its founder as a ‘micro local’ model. Re-food collects prepared, excess meals at local, often small food sources, and mainly distributes them directly to local beneficiaries. In terms of *structure*, Re-food’s prepared meals require a daily collection at each food source, at the end of each working day, when excess food that cannot be sold the next day due to legal constraints is identified by food business owners. The exchange mechanism leverages abundant, underutilized resources, such as excess prepared food, voluntary work, and material and space resources from partners. Unlike traditional nonprofit models, Re-food neither conducts fundraising activities, nor depends on public subsidies. Perhaps the most innovative feature at Re-food lies on its volunteer management. This 100% volunteer-association requires only two hours of work per week from most its volunteers. Management team members, although volunteers as well, are typically involved with Re-food activities for about six hours per week. This reduced requirement of volunteer time promotes the involvement of the whole community and is potentially one of the reasons why Re-food was able to expand so quickly to so many geographic regions. *Governance* at

Re-food is decentralized and based on local initiative and empowerment, which once more promoted its rapid growth. The recent central team performs administrative and accounting activities to support the 38 local centers, disseminates best practices and promotes procedures to ensure food safety.

The findings described indicate that both Fruta Feia and Re-food present complex BMI, displaying innovations across several business model components and presenting “new to the industry” features (Foss and Saebi, 2017). Noteworthy, although some of the innovations here identified may currently exist in other models around the world, they either did not exist or were unknown by members of the projects at the time they were implemented. These results confirm initial assumptions about both business models’ innovations and thus validate the choice of the two cases.

2.3.4.2. Dynamic perspective: Understanding the business model design process

To understand how each business model emerged and developed, I built and analyzed a rich timeline of events for each case. Each event triggering a business model decision was carefully analyzed to determine both the decision-making logic used and the business model design antecedents that influenced the decision.

2.3.4.2.1. Fruta Feia business model design process.

From December 2012 until January 2018, I identified 99 events in the Fruta Feia entrepreneurial process, of which 57 resulted in business model design decisions (Figure 4). Based on the predominant decision-making logic at each period of time, I identified different stages in Fruta Feia’s business model design process. The initial stage started at the end of 2012, when Fruta Feia’s founder watched a documentary on TV about food waste and started thinking about an alternative.

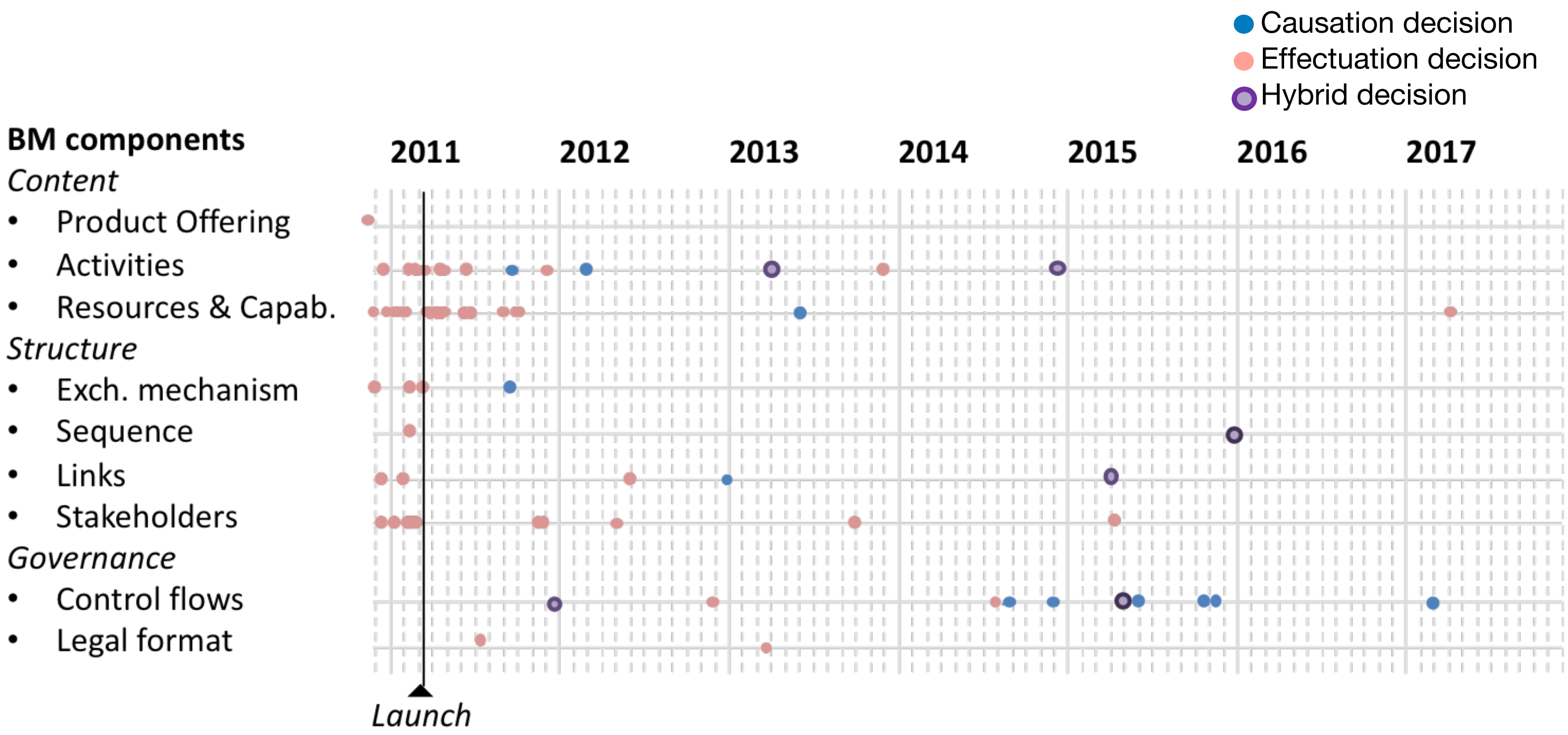

Figure 4. Timeline of key decisions in Re-food's business model design process

"And one day I'm at home in Barcelona and I see a documentary about food waste and then in this documentary there's a part that focuses on this problem that for me was totally unknown, that part of the food goes into the trash for mere aesthetic reasons. That seemed pathetic, I thought." Fruta Feia's founder

In this period, causation was the prevailing decision-making mechanism and goals and pre-defined templates were extensively used as business model design antecedents. During the first five months, most elements of the new business model were conceptualized.

"So, I thought, like, ah! It would be good if there were no intermediaries so that the price for the consumer would also be fair, that was something that… which directly linked the farmer to the consumer, also bringing the consumer closer to the reality of the countryside." Fruta Feia's founder on defining the structural elements of the business model

"So maybe the fact that I already belonged to [another] consumer group...That is, the basket format was no longer a strange thing for me, but it was already a familiar thing, another solution to consider because I had already been in contact with it." Fruta Feia's founder on using a template to design content elements of the business model

In April 2013, seven months prior to its launch in November 2013, when the Fruta Feia idea was selected as one of the ten finalists at a SE award – the Gulbenkian IOP contest – the initial business model was already largely designed.

"When we got to the Gulbenkian bootcamp, Fruta Feia was what it is today. The idea was already made, they did not help us at all... No." Fruta Feia's founder

Nevertheless, participating in the Gulbenkian IOP contest triggered a second stage in which effectuation logic flourished. From April 2013 until September 2014, almost one year after launching Fruta Feia (November 2013), extensive interactions with stakeholders and unexpected events constraining the means available drove important adaptations to the initial business model design, as for example, the resources and capabilities required, the stakeholders involved, and the exchange mechanism used.

> *"Those were easy, because they were also proximity relations."* Employee at Fruta Feia employee describing the establishment of initial partnerships with farmers based on own relationships at hand (effectuation).
>
> *"Meanwhile, the project started and there were many people writing to say 'Congratulations, beautiful project, need help?' There were people who showed up right there. And I thought if people want to help, if people want to come here to arrange baskets, who am I to say no? So, it's something that came up, it was not something initially thought out."* Fruta Feia's founder on including volunteer work in the business model based on means at hand and affordable loss heuristics (effectuation)
>
> *"A Mercedes Vito was no longer what we needed. I'm glad it burned down (laughs). I'm joking, but obviously sometimes bad things happen for a good reason, right? And that allowed us to realize that by delegation we could reach 300 [consumers]."* Employee at Fruta Feia explaining why 300 consumers is the maximum capacity per delegation, determined by larger size of the new van (effectuation)

The third stage emerged around September 2014, when causation mechanisms started to reappear, leveraging the knowledge accumulated with experience of running operations. Simultaneously, goals and templates became once again more relevant in re-designing the business model elements. For example, the governance model and control flows were reviewed based on the goal to expand the project geographically, leveraging previous experience accumulated in running the first three delegations in Lisbon.

> *"That I think was one of the things that changed the most. We thought it was going to be one [delegation] in each city, for example, one in Lisbon, then one in Porto, then*

one in Aveiro. But then we soon faced a very big problem that was one delivery point, one salary. So, if you open a single delivery point, you will have a person working alone and this is super demanding and it's a risk: (...) this person goes to the field alone to carry a ton and a half. So, it was like no, no, I cannot do it with one person in Aveiro, another in Coimbra, another in Porto. Every time I open [one delegation], I have to open two, to be able to hire at least two people." Fruta Feia's founder

Another example was the implementation of an online platform in November 2015 based on previous knowledge of consumers favoring flexibility coupled with the Fruta Feia's goal to ensure an automated lean process that could enable expansion. This resulted in adaptations to the activities performed and the resources and capabilities required.

"And that excel was always being redone, kind of every week we'd redo that excel. And nowadays, for example, it's a website, where people have... you have the consumer's interface and you have the employees' interface and the consumers can make their basket cancellations, suspend their basket, change the basket size from large to small or vice-versa…. this means the employees no longer have to do this. And this saved us a lot of work." Former employee at Fruta Feia

In sum, the business model design at Fruta Feia integrated different strategies along a process that extended beyond the project was launched. First, the initial conceptualization stage of Fruta Feia's business model leveraged its founder's previous knowledge from a similar consumer group and expertise as an environmental engineer, through generative cognition processes (Martins et al., 2015). Second, significant adaptations to the initial business model design occurred as soon as contacts with stakeholders and the environment started, even before the project was launched, through an evolutionary learning process (Chesbrough, 2010). Finally, one year after implementation, deliberate changes in the business model took place based on causation mechanisms and generative cognition practices and in the absence of exogenous shocks, as experience accumulated through running operations.

2.3.4.2.2. Re-food business model design process

During the eight-year period of Re-food's BMI process, I identified 110 events that led to 69 decisions on the business model design. In contrast with the Fruta Feia's conceptualization stage, which favored causation logics, at Re-food effectuation prevailed right from the beginning. Interestingly, similar to the Fruta Feia's case, causal decisions emerged one year after operations were launched, as a single decision-making logic or coupled with effectuation in hybrid decisions (Figure 5).

In December 2010, while having dinner with his daughter, Re-food's founder started to think about how to solve the food waste problem when he was confronted with that societal issue.

> *The impetus to start thinking about it was the dinner at the restaurant by the salad bar and I defended the people at the restaurant. My daughter was attacking them saying that they should give food to people. (...) And I said look I've already told you it's not their fault, because they don't have an alternative. And this was when the light bulb went off, when I said this alternative. And it was then that I sat down and wrote the first draft (...). I just wrote that there is all this food that you don't see and I don't see, we don't see it, she only saw it because she was working on the catering thing. (...) So it's kind of invisible, but it's universal. It's ubiquitous. Funny combination.* Re-food founder established the purpose of the project right from the start.

He immediately set out to test his idea of channeling excess food to those in need and to mobilize local restaurants and social organizations. Re-food's business model components

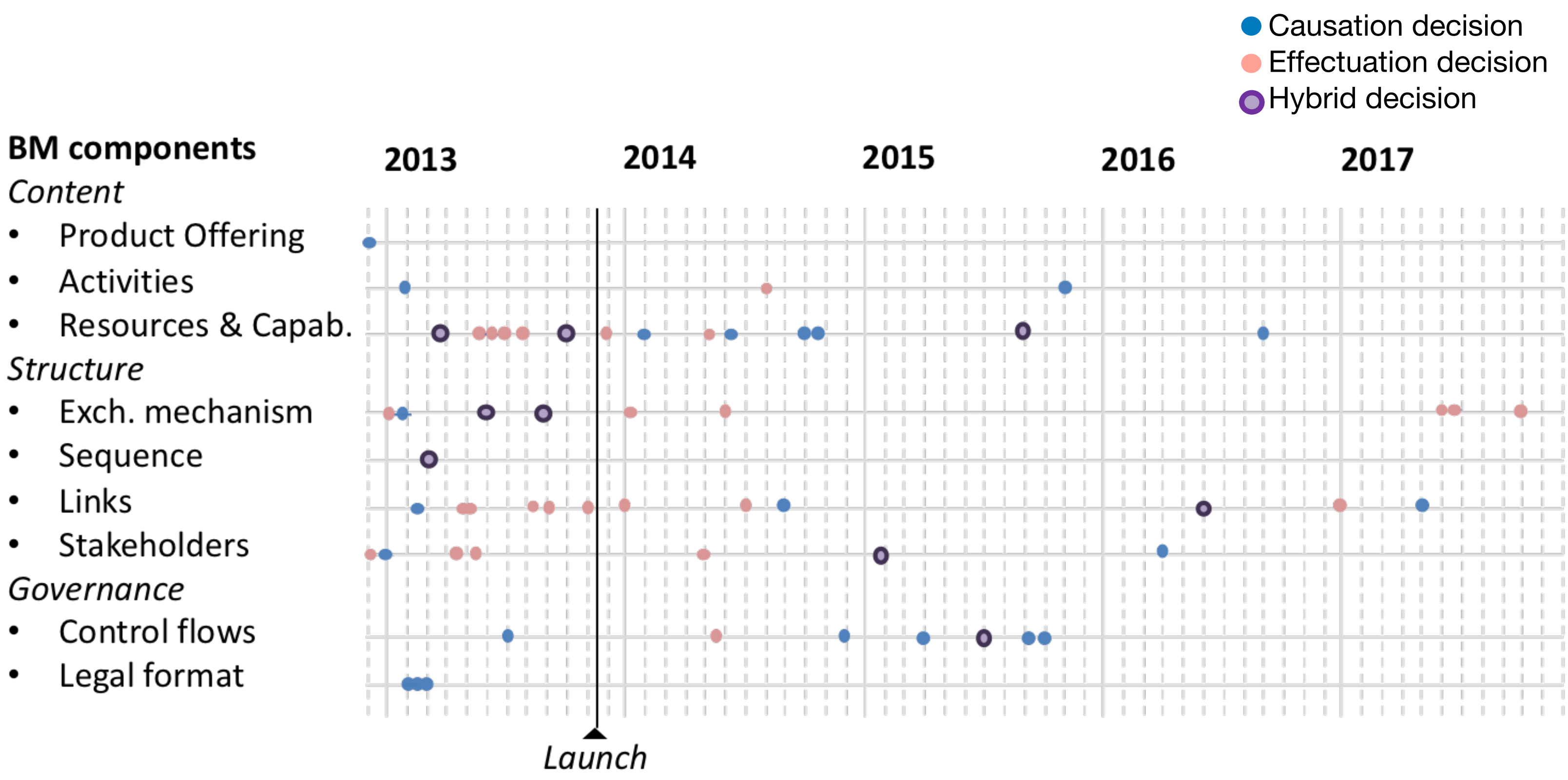

Figure 5. Timeline of key decisions in Fruta Feia's business model design process

started being designed pulled along by these initial conversations, significantly influenced by potential partners' existing activities and by the geographical and material specificities of its founder's neighborhood, where the project was first launched.

"I went to each one of these 45 [restaurants and pastries] and presented my case and 30 of them said yes. And this was when nobody knew what Re-food was, no, zero name, it didn't exist! (...) you have to mobilize people to accept some mission and put it in practice." Re-food's founder started reaching out to potential stakeholders to mobilize them and ensure their collaboration.

"Some of the thinking that went into it was you got to get the food, you got to give it to somebody you probably need a place to put it. So, then I asked for a meeting with priest Luís Alberto." Re-food's founder established alliances with the local church, co-creating activities related to beneficiaries and granting access to them.

"So, I start riding a bicycle. So, I start thinking about the logistics. I start thinking about the restaurants and the pastry shops and where they are and where I live. I live in the Nossa Senhora de Fátima neighborhood." Re-food's founder shaped the business model's activities and resources according to the specificities of his neighborhood.

"It happened that half of those fifteen [restaurants and pastries] were at the end of the day and fifteen were at night. So, I had two routes. That's where the two-hour-routes came from, with that. It wasn't that I said 'You know what? If we only asked for two hours, we'll get lots of people'. Not this genius thing, it was the fact the routes were two hours and there's time in between them for preparation. So, it was not like it was planned, it was there!" Re-food's founder designed Re-food's key activities shaped by existing stakeholder activities.

On March 9, 2011 Re-food was launched, but the business model was not fully designed yet. At that moment, some sub-components were not yet thought through, namely the governance model, and all sub-components that had already been designed went through significant changes. Governance flows emerged, as needed tools to organize activities with stakeholders and within the rapidly growing team, and the legal form was adopted as a required tool to move forward and establish formal partnerships. As previously, effectual mechanisms were extensively used and stakeholder activities, together with environmental constraints, continued to shape the business model.

> *"And so, I started thinking of what we had to do to win this prize. And what we had to do is we had to have a legal entity. So, if we don't have a legal entity, we can't do this. So that's why we formed Re-food for Good, to win that prize and we got it."* The legal format was chosen four months after launching Re-food, pulled along by and to fit the purpose of an external event, the Montepio Award.

In a second stage, almost a year after Re-food was implemented, the team's accumulated experience and knowledge enabled the emergence of causation reasoning, either as a stand-alone logic or in combination with effectuation. For example, Re-food defined its control flows not only based on previous knowledge (causation) of the tasks that require control, but also based on the number of volunteers available (effectuation).

> *"By the end of 2011 was the first replication. And then I had to think how you organize something from scratch, because I'd never thought about… because we were just doing it. And so, I do this, you do that. So, there was not a real division. So Telheiras was the first one... I have to talk to these people so I have to organize this thing some way, so I can talk about it. And so, we have to have volunteers and we need a volunteer manager… It's kind of emerged."* Re-food's founder

"One of the things that bothered me, besides the food waste, was the waste of boxes. There was a huge waste of packages, and I'm against it. I think we generate too much plastic. So, when we decided to open Telheiras, what did we think? Let's try not to replicate the Nossa Senhora de Fátima mistakes, let's try to improve it. So, everything was created anew." Head of Telheiras Re-food Center and former member of the National Re-food Center

When designing the National Meeting's purpose, one of Refood's key governance elements, the management team bore in mind not only the boundaries and principles that should be guiding the Re-food project based on previous knowledge (causation), but also the advantages of experimenting through the vast number of local centers available (effectuation).

"It had the thing like the ten commandments and the three pillars. The Principles Letter is an ancient document very badly written, full of typos... but that was [the] first attempt at defining... establishing some kind of uniform between... all centers." Re-food's founder

"There is no manual... and so we end up with 40 laboratories and that's where we have to leverage the fact that we have 40 laboratories to cherry-pick the best practices to send them the questionnaires to find out what they are doing what they think about it and what their innovations are, what they do that is really good. And so that's all the process that we are doing now, with all the questionnaires. It's kind of an internal audit of what's going on and what are the best practices. That's how the social franchise will be defined, it's through this process." Re-food's founder

In conclusion, after establishing its purpose, Re-food's business model was initially conceptualized and further adapted at the implementation stage to fit environment conditions predominantly through effectual reasoning. Re-food started making causal decisions based on accumulated knowledge and experience only after the first year of running operations, using generative cognition processes (Martins et al., 2015). Noteworthy, effectuation still played an important role at the expansion stage, namely to select best practices among the multiple number of local centers. This strategy of testing different business models at the same time to understand what works best has been identified as simultaneous experimentation strategy (Andries et al., 2013).

Contrasting Fruta Feia and Re-food design processes, I observe different strategies at the initial conceptualization of the business model, but surprisingly similar approaches at the implementation and expansion stages (Table 17), as discussed in the next section.

2.3.5. Discussion

2.3.5.1. Contrasting conceptualization strategies

At the conceptualization stage, when the social entrepreneur designs an emergent business model that was previously inexistent, Fruta Feia and Re-food exhibited contrasting strategies. The Fruta Feia case exemplifies the use of generative cognition processes (Martins et al., 2015) based on the founder's cognitive and deliberate practices (Snihur and Zott, 2020). However, at Re-food, the new business model was designed in the absence of industry expertise or accumulated knowledge that feeds analogical reasoning and conceptual combination, the cornerstones of cognitive strategies. After defining the purpose of the project, Re-food significantly employed effectual reasoning to create its innovative business model. Using a strategy I name *purposeful co-creation*, Re-food's founder started by defining the purpose of its project and then set out to engage stakeholders that could potentially collaborate in designing the new business model and provide the relevant means. BMI under this strategy occurs through action and is deeply path dependent and contingent to local

Table 17. Decision-making logics and BMI strategies used in each design process

			Predominant logic	**BMI strategy used**
Conceptualization of new business model		*Fruta Feia*	Causation	Generative cognition
		Re-food	Effectuation	Purposeful co-creation
Adaptation of existing business model	**Early stage** (During 1st year)	*Fruta Feia*	Effectuation	Evolutionary learning
		Re-food	Effectuation	Evolutionary learning
	Later stage (after 1st year)	*Fruta Feia*	Causation	Rational positioning
		Re-food	Causation (governance) Effectuation (activities and structure)	Rational positioning Simultaneous experimentation

environment conditions, which contrasts with the careful, laboratory-like thought-process driven by abstract goals and templates of the generative cognition approach.

Additionally, being triggered by action, the purposeful co-creation strategy may potentially have a quicker go-to-market approach than innovative business models conceptualized using cognitive strategies. Indeed, the duration of the pre-launch period was much shorter at Re-food (three months) than at Fruta Feia (one year). Causation reasoning pushes the entrepreneur to initially define the goals and then look out for the means to pursue those goals (Sarasvathy, 2001a). At Fruta Feia, its founder first conceptualized the new business model components on her own, leveraging goals and templates as the main business model design antecedents. The Fruta Feia team only engaged with stakeholders five months after its founder's initial thoughts, which required adaptations to the original business model design even before the project was launched. Additionally, causation reasoning drove Fruta Feia's team to make sure the required means to attain the previously defined goals were assembled before launching the project, carrying out a crowdfunding activity to complement the funding won at the Gulbenkian's IOP Contest. In contrast, at Re-food, stakeholders were engaged very early on to co-create the business model design and the project was launched acknowledging some of the means had not been assembled yet, as for example, the volunteers required to cover all the neighborhood's restaurants and pastries. These results are aligned with those evidenced in other models of open innovation used to solve tricky business issues in record time (Demil et al., 2015).

Purposeful co-creation may potentially benefit from and facilitate a better fit of the new business model with local environment conditions because they drive its design. At Fruta Feia, the original business model was developed in a 'contextual vacuum' through causation reasoning leveraging mental schema and analogies with other business models. Effectual decisions only emerged as the context (stakeholders and environment) constrained the initial idea and adaptations were key to ensure the viability of the project. At Re-food, effectuation was the driving logic to conceptualize the new business model. Interestingly, the collaboration with stakeholders in designing the new business model and the careful identification of the means they could provide promoted the integration of underutilized, abundant resources available, allowing the social entrepreneur to circumvent severe resource constraints. Some examples were the use of excess food from collaborating with restaurants and pastries, and space and volunteers from collaborating with the local church. Results reveal the importance of co-creating BMI with stakeholders in the SE context to respond to resource scarcity and lack of industry knowledge and are in line with previous research on value co-creation arguing that these approaches allow for the integration of mutual resources into value configuration (Ranjan and Read, 2016). These findings expand previous views suggesting that establishing co-development relationships among technology partners is an important mechanism for BMI (Chesbrough and Schwartz, 2007). The findings show that BMI may benefit from not only bringing consumers back to the spotlight (Demil et al. 2015), but also involving relevant stakeholders early on in the strategic co-creation process (Sun and Im, 2015).

Yet, the completeness of and consistency among business model components design is potentially less sound in a purposeful co-creation process than in a solution based on cognitive practices, because the latter benefits from abstraction and thoughtful control checks. Indeed, the number of BMI decisions and business model components designed previously to launching the project was higher at Fruta Feia than at Re-food. While Fruta Feia made almost half of the total BMI decisions mapped (27 out of 57) and designed all business model components before the project was launched, Re-food made one third of the identified BMI decisions (21 out of 69) and defined seven out of nine business model sub-components before implementation. The most significant difference relates to the business model governance component, which includes the legal format and control flows. Fruta Feia, using causal reasoning, designed the governance elements from the start to ensure the project would meet its goals of engaging consumers in the food waste problem and enable a market model that would value the non-standardized produce. As Re-food's business model was co-created with stakeholders and the governance elements were not relevant to implement the project at first, the legal format and control flows were only designed several months after Re-food's launch, when external and internal stakeholders required them.

The purposeful co-creation strategy is attuned with the creation theory of entrepreneurial action (Alvarez and Barney, 2007) and the opportunity co-creation perspective (Sun and Im, 2015), explaining how a previously inexistent business model is conceptualized based on effectual reasoning while clearly setting its purpose upfront. It thus differs from the 'pure' effectual strategy, in which goals emerge along the entrepreneurial process (Sarasvathy, 2001a; 2001b). In a purposeful co-creation strategy, what emerges along the process are the elements of the business model, that is, the way to reach that specific, pre-defined goal. Setting the purpose upfront is indeed a fundamental step for the social entrepreneur to "persuade, incentivize, and guide the ecosystem of stakeholders" (Zahra et al., 2014) that share the same purpose.

Sarasvathy (2001b) used the example of a chef cooking dinner to differentiate pure causation and effectuation approaches: when applying causation, the chef picks out the menu in advance and then shops for the necessary ingredients; when employing effectuation, the chef begins with given ingredients and utensils and focuses on preparing one of many possible desirable meals with them. Adopting the same cooking analogy, the purposeful co-creation strategy recalls the stone-soup folk story. In this legend, a monk without any means other than a stone arrives at a new village and mobilizes the neighbors by describing how an unheard-of stone-soup tastes and smells deliciously. Moved by curiosity and such vivid descriptions, the neighbors collaborate in the cooking by providing the ingredients they can spare. In the end, everyone shares the stone soup, prepared with whichever ingredients the villagers provided.

2.3.5.2. Similar patterns in contrasting cases

The matched-pair of projects privileging polar decision-making logics evidenced two strikingly similar patterns. First, at the adaptation stage of the design process, subsequent to the initial conceptualization of the inexistent business model, both projects predominantly displayed effectual decisions first and progressively introduced causal decisions later. This finding is aligned with previous studies of the entrepreneurial decision-making process demonstrating that "[…] overall, effectuation is more dominant in early phases, whereas causation is more dominant in later stages" (Reymen et al., 2015, p. 364). The transition from an effectual approach to a causal strategy became salient about a year after the projects were launched, both at Fruta Feia and at Re-food. Leveraging the experience and knowledge gained after several months of practice, both projects deliberately pushed process optimization and reviewed their governance model. Before accelerating expansion, Fruta Feia gathered resources to develop a technological platform to support processes. Additionally, based on previous knowledge, Fruta Feia realized that geographical expansion required at least two local delegations in each new region, instead of only one as initially planned. At Re-food, the geographic expansion process stabilized at the fifth replication, enabling an exponential growth afterwards. Following this, Re-food created a central team for administrative tasks and spreading best practices among its multiple local centers, pushing simultaneous experimentation (Andries et al., 2013) at the local level as a way to further develop its business model.

Second, the analysis of both cases at the decision-level revealed, as expected, that causation is strongly associated with the use of goals and templates as design inputs, while the adoption of effectuation is often associated with contributions from stakeholder activities and environment constraints in designing new business models (Table 18).

This finding indicates that the use of effectuation and causation not only influences the process by which a new business model emerges and how it evolves in time, but also shapes the substance of the business model itself. On one hand, business models emerging from effectual strategies will predominantly be designed to fit stakeholder activities and environment constraints. The resulting business model is thus permeable to its local context characteristics. For example, Re-food's innovative two-hour per week volunteer slots, which emerged from considering the means at hand (effectuation) – a bicycle and a single volunteer – to be used to geographically cover (environment constraints) the set of restaurants and pastries providing food at the same time slot (stakeholder activities). In another example, Fruta Feia adapted its business model activity of assembling baskets with volunteers who prompted to help and acted as the means at hand (effectuation) in face of a budget strain and limited access to additional funding (environment constraints). On the other hand, business models designed through causal strategies are mainly influenced by goals and templates and potentially less porous to their local context. At Fruta Feia, the founder deliberately adopted the fruit baskets she knew from another project she was involved with (template), in order to comply with the goal to provide a varied combination of produce with pre-defined quantities (causation). To ensure its environmental mission (goals), Re-food decided to eliminate plastic boxes and acquire re-usable food containers not available then (causation). Finally, effectual and causal reasoning also occurred simultaneously within the same decision, confirming the existence of a previously identified hybrid logic (Reymen et al., 2015; Welter and Kim, 2018). For example, Fruta Feia designed its innovative one-day logistics process through focusing on the goal to deliver fresh produce valued by consumers (causal reasoning) and

Table 18. Number of decisions made per decision-making logic and design antecedents used

	Single business model antecedent					
	Goals	Templates	Stakeholder activities	Environmental constraints	**2 or more business model antecedents**	**Grand Total**
Causation	**18**	**13**		**3**	**1**	**35**
Fruta Feia	12	10				22
Re-food	6	3		3	1	13
Effectuation	**3**	**4**	**38**	**25**	**6**	**76**
Fruta Feia	1	1	13	11		26
Re-food	2	3	25	14	6	50
Hybrid	**2**	**1**	**2**	**3**	**7**	**15**
Fruta Feia	1		2	3	3	9
Re-food	1	1			4	6
Grand Total	23	18	40	31	14	**126**

simultaneously acknowledging that stocking the produce would require investing in equipment the team could not afford to lose (effectual reasoning). At Re-food, the implementation of the food traceability process was also a result of a hybrid decision-making mechanism. Food safety procedures were triggered not only as a way to engage with strategic stakeholders and control potential future issues (effectual reasoning), but also by leveraging expert, previous knowledge from a food security volunteer (causal reasoning).

2.3.5.3. The BMI Strategic Framework

The BMI Strategic Framework synthesizes the findings and explains the key differences among distinct strategies that drive BMI (Figure 6). The framework distinguishes two different levels of analysis within the BMI design process: the *strategy* level, which results from the set of decisions made to conceptualize, choose or adapt a business model along a specific period; and the *decision-making* level, which corresponds to a unique decision about an element of the business model at a given moment in time. As such, I differentiate the 'pure' effectual strategy (Sarasvathy, 2001a; 2001b), which results from employing effectual decisions to conceptualize a new business model, from effectuation at the decision-making level, which is identified through the heuristics described in the literature (section 2.3.3.4).

The purposeful co-creation strategy, in a nutshell, is the set of predominantly effectual decisions to mobilize local stakeholders in collaboratively conceptualizing a previously inexistent business model that aims at a specific societal purpose that benefits all. This strategy complements previously identified conceptualization approaches, specifically the 'pure' effectual strategy, which starts with given means to imagine potential effects (Sarasvathy, 2001a; 2001b), and generative cognition approaches (Martins et al., 2015; Snihur and Zott, 2020), which use causal thinking to conceptualize a new business model. It

BMI strategy	**Description**	**Conceptualize new BM**	**Adapt existing BM**	
			Deliberate	**Reactive**
Generative cognition (Martins et al., 2015; Snihur and Zott, 2020)	Ideation of new cognitive schema in absence of shocks	√	√	
Rational positioning (Amit and Zott, 2001; Teece, 2010)	Analysis and choice of new elements in face of shocks			√
Evol. learning (Chesbrough, 2010)/ *trial and error* (McGrath, 2010; Sosna et al., 2010)	Experimentation and adaptation to environmental changes			√
Simultaneous experimentation (Andries et al., 2013)	Deliberate search and development of series of related BMs		√	
'Pure' effectual strategy (Sarasvathy, 2001a; 2001b)	Acknowledgment of means available to produce emergent goals	√		
Purposeful co-creation	Mobilization of stakeholders to collaborate with means and knowledge to tackle a shared purpose	√		

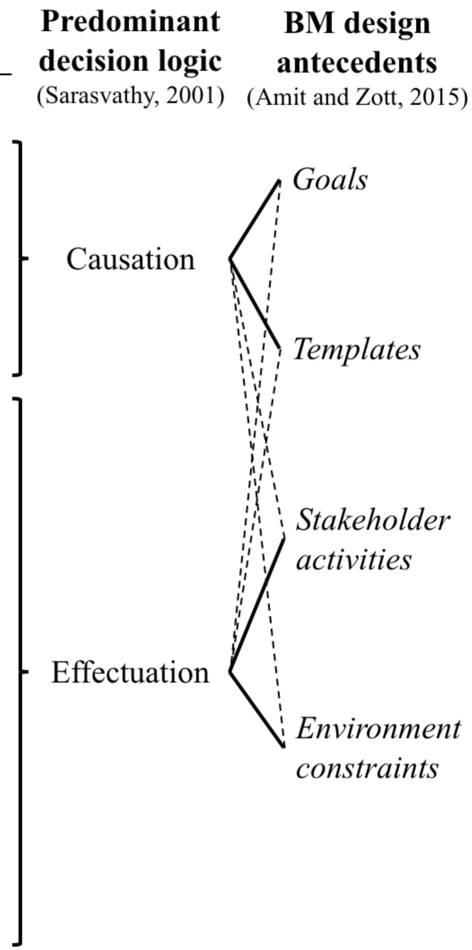

Figure 6. The BMI Strategic Framework.

also differs from other effectual strategies, namely evolutionary learning (Chesbrough, 2010), trial-and-error (McGrath, 2010; Sosna et al., 2010), and simultaneous experimentation (Andries et al., 2013) because it does not assume adaptations of or choices among pre-existing business models.

The framework also synthesizes the relationship between decision-making logics employed and BMI design antecedents privileged: while BMI strategies based predominantly on an effectual decision-making logic tend to be permeable to existing stakeholder activities and environment constraints, those based on causation, namely generative cognition and rational positioning, seem to favor goals and templates in designing the new business model.

2.3.6. Conclusions

Intrigued by how SE projects tackle the grand challenges of our time, I explored how social entrepreneurs use distinct strategies and leverage contrasting decision-making logics to design innovative business models.

To the business model literature, this study offers a map – the BMI strategic framework – of how distinct BMI strategies contribute to design innovative business models in different situations, leveraging distinct decision-making logics, and privileging specific design inputs. The BMI framework clarifies that under an effectual logic, entrepreneurs promote or allow stakeholder activities and environment constraints to shape the business model. When using a causal logic, entrepreneurs tend to guide the design of their business model using goals and industry templates to feed their cognitive approach.

Additionally, at the conceptualization stage, I describe the purposeful co-creation strategy and identify its effects in the BMI design process, expanding the opportunity co-creation perspective (Sun and Im, 2015) to the BMI field. Social entrepreneurs using this strategy mobilize local stakeholders very early on, motivated by a common shared purpose, to collectively design the components of the business model, rather than conceptualize them on their own based on previous knowledge and industry templates. By enabling the collaborative incorporation of stakeholders' abundant, underutilized resources in the business model design, social entrepreneurs circumvent the lack of resources and the difficult access to their traditional sources. Furthermore, social entrepreneurs following this strategy may potentially increase speed to market and benefit from a better fit of the new business model with local environment conditions. Furthermore, during the adaptation stage, results also confirm that, business model design seems to follow a pattern, in which decisions are made using effectuation in earlier stages and causation in later ones.

To the SE literature, I complement previous cross-sectional studies on SE business model typologies and explain how SE's unique characteristics of severe resource constraint, collaborative behavior, focus on a specific purpose towards value creation, and deep knowledge of local needs influence the emergence of innovative business models.

Beyond theoretical contributions, this research has important managerial implications for practitioners. In the absence of specific expertise and abundant resources, social entrepreneurs may develop innovative business models engaging stakeholders early on and mobilizing them to collaboratively share their underutilized resources. This approach to BMI may contribute to decrease the period prior to implementation and facilitate a contextual fit when the project is launched. The findings reinforce the importance of both effectuation and causation logics in designing innovative business models. Results stress the relevance of complementing the classic causation view with the effectuation perspective in entrepreneurship and SE education, explaining that both logics may be useful to develop innovative business models. Practitioners, in particular incubators, when supporting entrepreneurial efforts, social or otherwise, would benefit from complementing their portfolio of causal tools, such as the business model canvas, with others that generate awareness and lead to the application of an effectual logic.

Limitations include the use of a two-case theoretical sample and the use of historical data to obtain a longitudinal perspective. Considering the first limitation, while a pair of contrasting cases is effective at exposing a previously unobserved strategy, the general use of the purposeful co-creation strategy may require further research, namely exploring contexts other than social impact driven organizations. Despite the limited number of cases studied, the embedded design provided a vast array of evidence at the decision-making level of analysis, allowing for comfortable conclusions at this level. Concerning the second limitation, I believe that by gathering data at different stages, triangulating evidence from multiple sources, and collecting abundant data, I provide a sound support to the findings that social entrepreneurs use multiple effectual and causal approaches when designing innovative business models.

3. DISCUSSION AND CONCLUSIONS

The number of scholars and publications in SE has been increasing over the last two decades, providing evidence for the growing maturity of SE as a research field (Gupta et al., 2020). Nevertheless, academics recognize that SE knowledge is dispersed on a rather fragmented literature without dominant frameworks, and with prevailing controversies on the meaning of the concept (Saebi et al., 2019) and scarce empirically based theorization (Sassmannshausen and Volkmann, 2018). In addition, despite the critical role that SE is promising to play in addressing grand challenges (Dees, 1998), business model innovation addressing societal issues is still under researched (Foss and Saebi, 2017). These research gaps motivated the work described in this dissertation, which aims to establish conceptual and operational foundations of SE, in order to clarify the boundaries of the phenomenon and enable empirical research based on quantitative methodologies with generalizable findings, and to launch exploratory work on innovative business models addressing societal issues.

In this chapter, I discuss the main findings, limitations, and potential future avenues for academic inquiry. Table 19 presents a synthesis of the key issues, main findings, theoretical contributions, and practical implications of the work developed. In a nutshell, this work contributes to the literature by providing a new theoretical structure for the concept of SE, presenting empirical evidence for the three different SE conceptual subtypes identified, offering a validated 13-item scale to assess Social Development Entrepreneurial Orientation (SDEO), and offering a map of how distinct BMI strategies contribute to design innovative business models in the context of SE. Next, findings and contributions are detailed for each of the research questions investigated.

Table 19. Synthesis of key issues, findings, theoretical contributions, and practical implications

	Research question and sub-issues	Main findings	Theoretical contributions	Implications for practice
Study I	***Which attributes identify SE phenomena and how are they organized?*** • Which are the key attributes of SE? • How are the attributes organized?	• SE as a family resemblance concept • 3 main SE subtypes: business, developmental, and benefactor • 6 key SE attributes: wellbeing improvement goals, innovativeness, proactiveness, transformational change, commercial activities, and professional accountability	• Establish conceptual foundation of SE: identify SE attributes and uncover 3 SE subtypes, untangling fallacy of using same label for different phenomena and allowing for knowledge to accumulate • Pioneer the use of family resemblance conceptual structure in management	• Illuminate why disagreement may occur and build bridges between individuals or groups that unconsciously carry different institutional logics
Study II	***How should SE be operationalized?*** • Are subtypes empirically confirmed? • What is the operational definition for SDEO (*developmental* subtype)? • Are theoretical relationships validated?	• Relationships among 6 key SE attributes diverge, empirically confirming distinct SE subtypes • 13-item scale for SDEO validated • Relationships with other theoretically relevant and related constructs confirmed	• Propose operational model for SE • Empirically validate a 13-item 2nd order scale for SDEO with 4 1st order variables • Validate theoretical nomological network relating SDEO with compassion to others, perceived performance, and work engagement	• Suggest that by employing innovative and proactive practices to address social issues, social entrepreneurs may not only have a positive effect on the level of work engagement, but also increase social impact and performance
Study III	***How do social entrepreneurs leverage decision-making logics to strategically design innovative business models?*** • Which strategies are employed in designing new business models? • How do social entrepreneurs employ effectuation and ensure they don't harm society?	• BMI framework as a map of how entrepreneurs employ distinct strategies in different situations • Purposeful co-creation as an effectual strategy to design new business models, setting goal upfront to ensure social benefit	• Establish links among BMI strategies, prevailing decision-making logics, and business model design inputs • Characterize and identify effects of purposeful co-creation strategy in BMI • Complement cross-sectional research on SE business models with longitudinal view	• Provide social entrepreneurs with BMI strategy that circumvents resource and knowledge scarcity and simultaneously speeds time-to-market and facilitates contextual fit • Reinforce the importance of effectual and causal logics in BMI, confirming pattern in adaption stage

3.1. THEORETICAL CONTRIBUTIONS

Study I: Which attributes identify SE phenomena and how are they organized?

Contribution to the SE literature by clarifying key attributes and uncovering different subtypes. Although SE literature acknowledges conceptual controversies (Saebi et al., 2019) and scholars recognize the essentially contested nature of SE (Choi and Majumdar, 2014), SE is often treated as a classical concept, defined with a universally accepted set of attributes. By exposing consensual and controversial attributes of the SE concept and exploring how they are differently organized in theory and practice, this study reveals the conceptual fallacy of using the same SE term to label different phenomena and suggests a framework to organize three identified subtypes. First, the *business* subtype conceptualizes SE as the process of starting a commercial organization to address wellbeing improvement goals. The *business* subtype is increasingly popular among academics and practitioners, who may define SE as "[t]he process of employing market-based methods to solve social problems" (Grimes et al., 2013, p. 460). Second, the *developmental* subtype understands SE as the process of embracing the challenging task to contribute to social development, irrespective of the funding mechanism supporting the social mission. The *developmental* subtype stresses innovativeness, proactiveness, and a transformational change as central attributes of SE. Scholars within this subtype may define SE as "a process involving the innovative use and combination of resources to pursue opportunities to catalyze social change and/or address social needs" (Mair and Martí, 2006, p. 37). Finally, the *benefactor* subtype is less common than the previous two subtypes. This perspective assumes a "'popular' understanding of entrepreneurship, [where] the entrepreneurial element in social entrepreneurship is linked closely with borrowing from the outlook and methods of market-driven enterprise" (Peredo and McLean, 2006, p. 58). As each subtype results from a unique grouping of different attributes, this study cautions researchers against assumptions of causal homogeneity across subtypes of a family resemblance concept (Barrenechea and Castillo, 2019), that is, different SE subtypes may not share the nomological net just because they are part of the same conceptual SE family. As such, researchers need to acknowledge different subtypes and should explicitly state the subtype under study to allow for disclosure of core assumptions and knowledge accumulation in the SE field.

Contribution to the management literature by pioneering the application of the family resemblance conceptual structure. To the best of my knowledge, this study pioneers the use of the family resemblance conceptual structure in the management field. This structure may be successfully applied to other complex managerial concepts that struggle to fit the classical approach of being defined through a set of universally accepted attributes.

Study II: How should the SE family concept be operationalized?

Contribution to the SE literature by providing empirical evidence that supports the existence of distinct subtypes. Results from this piece of research empirically confirm that the six key attributes of SE previously identified hold different relationships among each other. Attributes referring to the *developmental* subtype – *wellbeing improvement goals*, *innovativeness*, *proactiveness*, and *transformational change aspirations* – correlate strongly with each other, suggesting they are manifestations of a second-order reflective construct I labelled Social Development Entrepreneurial Orientation (SDEO). However, the levels of *professional accountability* and *commercial activities* present weak or no correlations with the previous four attributes. This evidence points in the direction that the two uncorrelated attributes belong to different sub-domains of the SE conceptual space, supporting the existence of distinct SE subtypes.

Contribution to the SE literature by providing a validated 13-item scale to assess Social Development Entrepreneurial Orientation, within the developmental subtype. Following literature recommendations for scale development (MacKenzie et al., 2011) and building on recent exemplar works (Cardon et al. 2013; Chandler et al., 2011; Strese et al., 2018; Tang, Kacmar and Busenitz, 2012), this study contributes to SE literature by validating a 13-item scale to assess SDEO. This study taps methodological concerns identified in previous research, by (a) acknowledging conceptual controversies and relating key SE attributes identified through a thorough literature review, (b) applying a complete set of rigorous procedures for scale development, (c) adopting the social project as the level of analysis in accordance with recommendations to measure social performance at this level, and (d) validating results using a cross-sectorial sample of social projects.

Contribution to the SE literature by presenting support to theoretically described relationships with SDEO. Based on theoretically plausible relationships and on established measurement instruments, results confirm compassion to others as an antecedent of SDEO. Additionally, findings also provide evidence of a positive effect of SDEO on the levels of work engagement and of perceived performance, manifested in satisfaction with goal attainment and perceived comparative performance with other projects aiming at a similar social goal.

Study III: How do social entrepreneurs leverage decision-making logics to strategically design innovative business models?

Contribution to the business model literature: the BMI strategic framework. This study offers a map of how distinct BMI strategies contribute to the design of innovative business models in different situations, leveraging distinct decision-making logics, and privileging specific design inputs. Under an effectual logic, entrepreneurs promote or allow stakeholder activities and environment constraints to shape the business model. When using a causal logic, entrepreneurs tend to guide the design of their business model using goals and industry templates to feed their cognitive approach.

Contribution to the business model and SE literatures by identifying and describing the effects of the purposeful co-creation strategy. This study describes and identifies the effects of the purposeful co-creation strategy in designing new business models, expanding the opportunity co-creation perspective (Sun and Im, 2015) to the BMI context. Social entrepreneurs using the purposeful co-creation strategy mobilize local stakeholders early on, motivated by a common shared purpose, to collectively design the components of the business model, rather than conceptualize them on their own based on previous knowledge and industry templates. Under this approach, social entrepreneurs enable the collaborative incorporation of stakeholders' abundant, underutilized resources in the business model design, circumventing the lack of resources and the difficult access to their traditional sources. Similar to the 'pure' effectual strategy (Sarasvathy, 2001a), the purposeful co-creation strategy is based on effectual decisions to design the new business model, but departs from the former in that it is bounded by a specific social purpose defined upfront, which is particularly relevant in the context of SE.

Contributions to the SE literature by providing a longitudinal perspective on business model design process. This study complements previous cross-sectional studies on SE business model typologies by providing a longitudinal perspective of the design process of innovative business models. Findings explain how SE's unique characteristics of severe resource constraint, collaborative behavior, focus on a specific purpose towards value creation, and deep knowledge of local needs may influence the emergence of innovative business models.

3.2. IMPLICATIONS FOR PRACTICE

Beyond the theoretical contributions previously described, the three empirical studies conducted present relevant practical implications. First, by mapping three different subtypes of SE, the family resemblance structure illuminates why disagreement sometimes occurs among different groups of practitioners. The SE field has a particular complex institutional context, with disparate interests, identities, values, and assumptions. Competing institutional logics explain different beliefs and behaviors that, in turn, may fuel distinct SE conceptualizations based on different sets of attributes considered. Individuals following different logics are predictably mutually suspicious and may benefit from taking stock of other perspectives on SE, building bridges and benefitting the SE ecosystem to which all contribute.

Second, findings from Study II suggest that social projects that employ innovativeness to pursue opportunities to catalyze social change and/or address social needs will benefit from higher levels of work engagement in team members, which refers to "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al., 2002, p. 74). Additionally, irrespective of the adoption of commercial activities to fund the social mission, such practices may also lead to higher levels of perceived performance of social projects when compared to other projects aiming at similar social goals.

Third, the research herein described indicates that, in the absence of specific expertise and abundant resources, social entrepreneurs may develop innovative business models engaging stakeholders early on and mobilizing them to collaboratively share their underutilized resources. This approach to BMI may potentially contribute to decrease the period prior to implementation and facilitate a contextual fit when the project is launched.

Additionally, results show practitioners that, in developing entrepreneurial activities, social or otherwise, they can benefit from employing means that drive an effectual logic to complement the use of more popular causal tools, such as the business model canvas. Indeed, results confirm that both effectuation and causation are relevant decision-making mechanisms in designing new business models: while the former is more frequent in earlier stages of BMI design, the latter is more often found in later stages of BMI adaptation.

3.3. LIMITATIONS

The empirical studies described present noteworthy limitations, already described in the respective study and synthesized as follows. In Study I, the attributes identified reflect the conceptualizations presented in a vast sample of academic definitions. The subtypes emerged from a purposefully diverse sample of SE experts describing specific combinations of central attributes of SE. Despite efforts to obtain distinct perspectives on the SE concept, I acknowledge that results from the qualitative interviews conducted may not be generalizable to a larger group of SE actors. Specifically, other combinations of attributes, namely with those that were less frequently found in the sample of SE definitions, are possible and may form distinct SE subtypes not referred to but worth exploring in future research.

In Study II, it is important to note that research based on surveys may be affected by sampling error, resulting from an increased difficulty of finding a truly representative sample (Bryman, 2008). Acknowledging that SE projects are particularly difficult to select through an easily identifiable legal format or explicit characteristic, the databases used attempted at reducing potential biases based on project goals or legal form. To that end, I used a database of respondents that have signaled their potential work in the SE field, irrespective of the economic sector they worked in, and contacted them to filter out respondents that did not fit the sample frame. However, respondents were still limited to the Portuguese nationality. Additionally, despite efforts to expand potential responses and to increase the response rate, the final number of valid responses in each stage was narrow. The sample size, although acceptable for the analyses conducted (Hair et al., 2010) and described in this dissertation, restricted statistical tests that could provide additional conclusions, such as multi-group analyses requiring sample splitting or a more complete SEM analyses with other theoretically related constructs.

Finally, Study III used a two-case theoretical sample and historical data to obtain a longitudinal perspective. While a pair of contrasting cases proved effective at exposing the interplay of different strategies in BMI design, the generalizability of the findings requires further research, for example, exploring contexts other than food waste or even social impact driven organizations. Another limitation of this study is the use of historical data to obtain a longitudinal perspective. To circumvent this constraint, Study II used abundant data at different stages and triangulated evidence from multiple sources to provide a sound support to the findings that social entrepreneurs use multiple effectual and causal approaches when designing innovative business models.

3.3. FUTURE RESEARCH

SE is a burgeoning research field, rich in opportunities for further inquiry. From the conclusions in Study I, different streams of research can be pursued as academics focus on distinct conceptualizations of SE. Recently, the *business* subtype has received enormous attention from researchers investigating social enterprises, which are hybrid organizations developing commercial activities to pursue social goals (Pache and Santos, 2013). By bringing attention to other SE subtypes, namely the *developmental* subtype, academics may focus on using innovativeness as a means to pursue opportunities to achieve social transformation and wellbeing improvement goals. Scholars started to explore social change related issues, such as opportunity co-creation processes (Sun and Im, 2015), the locus where social change takes place (Lumpkin et al., 2018), and impact measurement techniques (Rawhouser et al., 2019). Moving forward, researchers may venture into new avenues that further explore how social change occurs, such as (a) how solutions to specific social issues are crafted in order to achieve a new, stable equilibrium, or (b) how these solutions are contributing to social impact at large and to close the gap vis-à-vis United Nations Sustainable Development Goals, or (c) how SE brings different stakeholders, namely beneficiaries, to measure its impact offering new insights on the effectiveness of SE. Finally, scholars can bring existing lenses from the broader entrepreneurship literature, such as entrepreneurial learning, to shed light on how social entrepreneurs and SE organizations build and interpret feedback loops to continuously change and adapt their activities, ensuring that they contribute to solve the social problems identified.

From Study II, new and exciting avenues open up to explore the SE field at scale using quantitative methodologies. Academics acknowledge that performance measurement is key in SE research (Rawhouser et al., 2019) and Study II suggests that SDEO may indeed predict the performance of a social project. However, performance assessment is still limited and requires additional research to increase rigor and expand financial and subjective indicators. Future research may place more emphasis on social goal attainment, using a logic model (Wry and Haugh, 2018) to explain achievement at different levels (outputs, outcomes, and impact), or assessing performance at the beneficiary level (Kroeger and Weber, 2014). Another important avenue of research could validate a parsimonious formative index to assess the overall SE construct, including the variables here presented to measure the levels of commercial activities and professional accountability. Such construct may be useful, for example, to assess the effect of commercial activities in the performance of social projects, both at the social impact and financial sustainability levels. Finally, exploring the intersection of SE and Human Resources (HR) management offers tremendous opportunities. Study II presented evidence that SDEO has a positive effect on the level of work engagement. However, future studies may further investigate how HR practices in the SE context differ from those in the commercial entrepreneurship field. Questions on how to motivate, train, evaluate and retain SE employees and volunteers are still insufficiently explored. Another important avenue for future research is to understand the negative effects of SDEO in social entrepreneurs' wellbeing, as for example, burnout as a side-effect of the multiple strains related to SE, such as resource scarcity. This topic can shed light on an undesired consequence of SE, usually associated with positive outcomes.

Business models offer another fruitful opportunity for further inquiry in the SE field. Study III ventures in that direction but new research is needed to shed light in this hot topic. In following this stream, researchers may shift academic discussion from intra-organizational issues to a systemic supra-organizational unit of analysis, which is particularly relevant in the SE context because business models in SE may potentially leverage on the collaborative work with stakeholders sharing a common social mission. Exploring existing configurations of SE business models is still at its infancy. Research may venture into identifying templates that are repeatedly used to solve distinct social issues. Additionally, future studies may also attempt at identifying the role of technology in SE business models or validate the relevance of developing earned-income strategies in attaining financial sustainability vis-à-vis other sources of income. This knowledge is crucial to provide support to future social entrepreneurs in one of the most important choices along the entrepreneurial process. The time is also ripe to assess the influence of the complex institutional logic context that characterizes SE in adopting specific business models. To this end, researchers may test previously suggested hypotheses concerning how the social entrepreneur's background and experience may influence the choice of the business model (Saebi et al., 2019).

3.4. CONCLUSIONS

The increasingly relevant role of SE in contributing to solve intricate societal issues is inspiring researchers to embrace this burgeoning research field. Yet, SE still struggles with definitional ambiguity and lack of dominant frameworks. This dissertation explores SE phenomena in order to establish conceptual and operational foundations and to uncover strategies social entrepreneurs use when designing innovative business models to tackle grand challenges. By proposing the family resemblance as the underlying conceptual structure of SE, this dissertation accommodates distinct and prevalent perspectives on the meaning of SE. While a significant group of actors view SE as the process of creating a commercial enterprise to ensure financial sustainability, other groups understand it as the use of innovativeness to pursue opportunities to catalyze social change and ensure a sustainable impact, or as the professionalization of management activities to increase accountability in nonprofits. Based on this conceptual structure, the work developed further specifies a model to operationalize SE and provides a 13-item validated scale to assess Social Development Entrepreneurial Orientation (SDEO). Findings support theoretically described relationships between SDEO and compassion to others, work engagement, and performance. Results further reveal that, in order to address the grand challenges, social entrepreneurs design innovative business models employing different strategies and decision-making logics. Specifically, to achieve a societal purpose defined upfront, social entrepreneurs may employ the purposeful co-creation strategy to conceptualize an inexistent business model, through mobilizing local stakeholders early on to collaboratively design business model components and to contribute with their underutilized resources. I hope the findings of this dissertation will help researchers navigate in the exciting topic of SE, support social entrepreneurs in designing new models to tackle societal grand challenges, and build bridges between different groups of academics and practitioners contributing to this promising academic field.

REFERENCES

Alarifi, G., Robson, P., and Kromidha, E. 2019. "The manifestation of entrepreneurial orientation in the social entrepreneurship context". *Journal of Social Entrepreneurship*, 10(3): 307–327.

Alegre, I., Kislenko, S., and Berbegal-Mirabent, J. 2017. "Organized chaos: mapping the definitions of social entrepreneurship". *Journal of Social Entrepreneurship*, 8: 248–264.

Alvarez, A.S., and Barney, J.B. 2007. "Discovery and creation: alternative theories of entrepreneurial action". *Strategic Entrepreneurship Journal*, 1: 11–26.

Amit, R., and Zott, C. 2001. "Value creation in e-business". *Strategic Management Journal*, 22: 493–520.

Amit, R., and Zott, C. 2012. "Creating value through business model innovation". *MIT Sloan Management Review*, 53(3): 41–49.

Amit, R., and Zott, C. 2015. "Crafting business model architecture: the antecedents of business model design". *Strategic Entrepreneurship Journal*, 9(4): 331–350.

Anderson, B. B. and Dees, J. G. 2006. "Rhetoric, reality and research: building a solid foundation". In A. Nicholls (Ed.), *Social entrepreneurship: new models of sustainable social change*: 144–168. Oxford: Oxford University Press.

André, K. and Pache, A. C. 2016. "From caring entrepreneur to caring enterprise: Addressing the ethical challenges of scaling up social enterprises". *Journal of Business Ethics*, 133: 659–675.

Andries, P., Debackere, K., and Van Looy, B. 2013. "Simultaneous experimentation as a learning strategy: Business model development under uncertainty". *Strategic Entrepreneurship Journal*, 7(4): 288–310.

Austin, J., Stevenson, H., and Wei-Skillern, J. 2006. "Social and commercial entrepreneurship: same, different or both?" *Entrepreneurship: Theory and Practice*, 30: 1–22.

Bacq, S. and Janssen, F. 2011. "The multiple faces of social entrepreneurship: a review of definitional issues based on geographical and thematic criteria". *Entrepreneurship and Regional Development*, 23: 373–403.

Baldauf, A., Cravens, D. W., and Wagner, U. 2000. "Examining determinants of export performance in small open economies". *Journal of World Business*, 35(1): 61–79.

Barrenechea, R. and Castillo, I. 2019. "The many roads to Rome: family resemblance concepts in the social sciences". *Quality and Quantity*, 53: 107–130.

Bartholomew, S., Smith, A. D. 2006. "Improving survey response rates from chief executive officers in small firms: The importance of social networks". *Entrepreneurship: Theory and Practice*, 30(1): 83–96.

Battilana, J. and Dorado, S. 2010. "Building sustainable hybrid organizations: the case of commercial microfinance organizations". *Academy of Management Journal*, 53: 1410-1440.

Battilana, J., Lee, M., Walker, J., and Dorsey, C. 2012. "In search of the hybrid ideal". *Stanford Social Innovation Review*: 51–55.

Behr, D. 2017. "Assessing the use of back translation: The shortcomings of back translation as a quality testing method". *International Journal of Social Research Methodology*, 20(6): 573–584.

Brislin, R. W. 1970. "Back-Translation for Cross-Cultural Research". *Journal of Cross-Cultural Psychology*, 1(3): 185–216.

Bornstein, D. 2004. *How to change the world: social entrepreneurs and the power of new ideas*. Oxford: University Press.

Boschee, J. and McClurg, J. 2003. "Toward a better understanding of social entrepreneurship: some important distinctions". Last retrieved on 14 March 2015 from www.opra.org

Bosma, N. S., Schøtt, T., Terjesen, S. A., and Kew. P. 2015. "Global Entrepreneurship Monitor 2015 to 2016: Special Report on Social Entrepreneurship". Global Entrepreneurship Research Association. Last retrieved on 25 November 2020 from https://www.gemconsortium.org/file/open?fileId=49542

Britt, T. W., Adler, A. B, and Bartone, P. T. 2001. "Deriving benefits from stressful events: The role of engagement in meaningful work and hardiness". *Journal of Occupational Health Psychology*, 6: 53–63.

Britt, T. W., Dickinson, J. M., Moore, D. M., Castro, C. A., and Adler, A. B. 2007. "Correlates and consequences of morale versus depression under stressful conditions". *Journal of Occupational Health Psychology*, 12: 34–47.

Bruder, I. 2020. "A social mission is not enough: Reflecting the normative foundations of social entrepreneurship". *Journal of Business Ethics*.

Bryman, A. 2008. *Social research methods* (3rd Ed). Oxford: University Press.

Cardon, M. S., Gregoire, D. A., Stevens, C. E., and Patel, P. C. 2013. "Measuring entrepreneurial passion: Conceptual foundations and scale validation". *Journal of Business Venturing*, 28(3): 373–396.

Certo, S. T. and Miller, T. 2008. Social entrepreneurship: Key issues and concepts. *Business Horizons*, 51: 267–271.

Chandler, G. N., and Lyon, 2001. "Issues of research design and construct measurement in entrepreneurship research: The past decade". *Entrepreneurship: Theory and Practice*, 25(4): 101–113.

Chandler, G.N., DeTienne, D.R., McKelvie, A., and Mumford, T.V. 2011. "Causation and effectuation processes: A validation study". *Journal of Business Venturing*, 26: 375–390.

Chell, E. 2007. “Social enterprise and entrepreneurship: towards a convergent theory of the entrepreneurial process”. *International Small Business Journal*, 25: 5–26.

Chell, E., Spence, L. J., Perrini, F., and Harris, J. D. 2016. “Social entrepreneurship and business ethics: does social equal ethical?” *Journal of Business Ethics*, 133: 619–625.

Chesbrough, H. 2010. “Business model innovation: Opportunities and barriers”. *Long Range Planning*, 43(2/3): 354–363.

Chesbrough, H., and Schwartz, K. 2007. “Innovating business models with co-development partnerships”. *Research-Technology Management*, 50(1): 55–59.

Chliova, M., Mair, J., and Vernis, A. 2020. “Persistent Category Ambiguity: The case of social entrepreneurship”. Organizations Studies, 41(7): 1019–1042.

Choi, N. and Majumdar, S. 2014. “Social entrepreneurship as an essentially contested concept: opening a new avenue for a systematic future research”. *Journal of Business Venturing*, 29: 363–376.

Corner, P.D. and Ho, M. 2010. “How opportunities develop in social entrepreneurship”. *Entrepreneurship: Theory and Practice*, 34(4): 635–659.

Dacin, P. A., Dacin, M. T., and Matear, M. 2010. “Social entrepreneurship: why we don’t need a new theory and how we move forward from here”. *Academy of Management Perspectives*, 24: 37–57.

Dart, R. 2004. “The legitimacy of social enterprise”. *Nonprofit Management and Leadership*, 14: 411–424.

Davies, I.A. and Doherty, B. 2019. “Balancing a hybrid business model: The search for equilibrium at Cafédirect”. *Journal of Business Ethics*, 157: 1043–1066.

Dees, J. G. 1998. “The meaning of social entrepreneurship”. Last retrieved on 25 April 2020 from http://www.redalmarza.cl/ing/pdf/TheMeaningofsocialEntrepreneurship.pdf

Demil, B., and Lecocq, X. 2010. "Business model evolution: In search of dynamic consistency". *Long Range Planning*, 43(2/3): 227–246.

Demil, B., Lecocq, X., Ricart, J.E., and Zott, C. 2015. "Introduction to the SEJ special issue on business models: Business models within the domain of strategic entrepreneurship". *Strategic Entrepreneurship Journal*, 9(1): 1–11.

Defourny, J. and Nyssens, M. 2008. "Social enterprise in Europe: recent trends and developments". *Social Enterprise Journal*, 4: 202–228.

Dess, G. G. and Robinson, R. B. 1984. "Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit". *Strategic Management Journal*, 5(3): 265–273.

DeVellis, R.F. 2017. *"Scale development: Theory and applications"* (4th Ed.), Thousand Oaks: SAGE.

Dew, N., Read, S., Sarasvathy, S.D., and Wiltbank, R. 2009. "Effectual versus predictive logics in entrepreneurial decision-making: Differences between experts and novices". *Journal of Business Venturing*, 24(4): 287–309.

Doherty, B., Haugh, H., and Lyon, F. 2014. "Social enterprises as hybrid organizations: A review and research agenda". *International Journal of Management Reviews*, 16: 417–436.

Downs, E., Bowman, N. D., and Banks, J. 2019. "A polythetic model of player-avatar identification: Synthesizing multiple mechanisms". Psychology of Popular Media Culture, 8(3): 269–279.

Drayton, W. 2002. "The citizen sector: becoming as entrepreneurial and competitive as business". *California Management Review*, 44: 120–132.

Dutta, S. 2019. "Seeing parochially and acting locally: Social exposure, problem identification and social entrepreneurship". *Journal of Business Venturing*, 34(6): 1–26.

Dwivedi, A. and Weerawardena, J. 2018. “Conceptualizing and operationalizing the social entrepreneurship construct”. *Journal of Business Research*, 86: 32–40.

Ebrahim, A. and Rangan, V. K. 2014. “What impact? A framework for measuring the scale and scope of social performance”. *California Management Review*, 6(3): 118–141.

Edwards, J.R. 2001. “Multidimensional constructs in organizational behavior research: An integrative analytical framework”. *Organizational Research Methods*, 4(2): 144–192.

Eisenhardt, K.M. 1989. “Building theories from case study research”. *Academy of Management Review*, 31: 543–576.

Eisenhardt, K. M. (*forthcoming*). “What is the Eisenhardt method, really?” *Strategic Organization*

Eisenhardt, K.M. and Graebner, M.E. 2007. “Theory building from cases: Opportunities and challenges”. *Academy of Management Journal*, 50(1): 25–32.

Eisenhardt, K.M., Graebner, M.E., and Sonenshein, S. 2016. “Grand Challenges and Inductive Methods: Rigor without rigor mortis”. *Academy of Management Journal*, 59: 1113–1123.

Fan, X., Thompson, B., Wang, L. 1999. “Effects of sample size, estimation method, and model specification on structural equation modeling fit indexes”. *Structural Equation Modeling*, 6: 56–83.

Foss, N.J. and Saebi, T. 2017. “Fifteen years of research on Business Model Innovation: How far have we come, and where should we go?” *Journal of Management*, 43(1): 200–227.

Fowler, A. 2000. “NGDOS as a moment in history: beyond aid to social entrepreneurship or civic innovation?” *Third World Quarterly*, 21: 637–654.

Gerring, J. 2012. *“Social science methodology: a unified framework”*, 2nd Edition. Cambridge: Cambridge University Press.

Gilbert, P., Catarino, F., Duarte, C., Matos, M., Kolts, R., Stubbs, J., Ceresatto, L., Duarte, J., Pinto-Gouveia, J., Basran, J. 2017. "The development of compassionate engagement and action scales for self and others", *Journal of Compassion Health Care*, 4(4): 1–24.

Gioia, D. A., Corley, K. G., and Hamilton, A. L. 2012. "Seeking qualitative rigor in inductive research: notes on the Gioia methodology". *Organizational Research Methods*, 16: 15–31.

Goertz, G., and Mazur, A. G. 2008. "Mapping gender and politics concepts: Ten guidelines". In Goertz, G., Mazur, A.G.(Eds.) *Politics, Gender, and Concepts: Theory and Methodology* (1st Ed.): 14–46. Cambridge: Cambridge University Press.

Grant, R. M. 1991. "The resource-based theory of competitive advantage: implications for strategy formulation". *California Management Review*, 33: 114–135.

Grimes, M. G., McMullen, J. S., Vogus, T. J., and Miller, T. L. 2013. "Studying the origins of social entrepreneurship: Compassion and the role of embedded agency". *Academy of Management Review*, 38(3): 460–463.

Gupta, P., Chauhan, S., Paul, J., and Jaiswal, M. P. 2020. "Social entrepreneurship research: A review and future research agenda". *Journal of Business Research*, 113: 209–229.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., 2010. *"Multivariate data analysis"*, 7th Ed. Edinburgh: Pearson Education.

Harding, R. 2004. "Social enterprise: the new economic engine?" *Business Strategy Review*, 15: 39–43.

Haugh, H. 2006. "Social enterprise: beyond economic outcomes and individual returns". In J. Mair, J. Robinson J, and K. Hockerts (eds.), *Social Entrepreneurship.* London: Palgrave Macmillan.

Haynes, S. N., Richard, D. C. S., and Kubany, E. S. 1995. "Content validity in psychological assessment: A functional approach to concepts and methods". *Psychological Assessment*, 7(3): 238–247.

Hibbert, S. A., Hogg, G., and Quinn, T. 2005. “Social entrepreneurship: understanding consumer motives for buying The Big Issue”. *Journal of Consumer Behaviour*, 4: 159–172.

Hinkin, T. R. 2005. “Scale development principles and practices”. In R. A. Swason, E. F. Holton III (eds.), *Research organizations: Foundations and methods of inquiry*. San Francisco, CA: Berrett-Koehler Publishers.

Hockerts, K. 2006. “Entrepreneurial opportunity in social purpose business ventures”. In J. Mair, J. Robinson J, and K. Hockerts (eds.), *Social Entrepreneurship*. London: Palgrave Macmillan.

Hockerts, K. 2017. “Determinants of social entrepreneurial intensions”. *Entrepreneurship: Theory and Practice*, 41(1): 105–130.

Homburg, C., Klarmann, M., Reimann, M. and Schilke, O. 2012. “What drives key informant accuracy?” *Journal of Marketing Research*, 49(4): 594–608.

Hota, P.K., Subramanian, P., and Narayanamurthy, G. 2020. Mapping the intellectual structure of social entrepreneurship research: A citation/co-citation analysis. *Journal of Business Ethics*, 166: 89–114.

Hu, L. and Bentler, P. M. 1999. “Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives”. *Structural Equation Model*, 6: 1–55.

Hu, X., Marlow, S., Zimmermann, A., Martin, L., and Frank, R. 2020. “Understanding opportunities in social entrepreneurship: A critical realist abstraction”. *Entrepreneurship: Theory and Practice*, 44(5): 1032–1056.

Hughes, M. and Morgan, E. M. 2007. “Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth”. *Industrial Marketing Management*, 36(5): 651–661.

John, O. P., and Benet-Martínez, V. 2014. "Measurement: Reliability, construct validation, and scale construction". In H. T. Reis and C. M. Judd (eds.), *Handbook of research methods in social and personality psychology*, Cambridge: Cambridge University Press.

Jarvis, C. B., MacKenzie, S. B., and Podsakoff, P. M. 2003. "A critical review of construct indicators and measurement model misspecification in marketing and consumer research". *Journal of Consumer Research*, 30(2): 199–218.

Kahn, W. A. 1990. "Psychological conditions of personal engagement and disengagement at work". *Academy of Management Journal*, 33(4): 692–724.

Kannampuzha, M. and Hockerts, K. 2019. "Organizational social entrepreneurship: Scale development and validation". *Social Enterprise Journal*, 15(3): 290–319.

Kellogg, K.C. (2012). "Making the cut: Using status-based countertactics to block social movement implementation and microinstitutional change in surgery". *Organization Science*, 23(6): 1546–1570.

Klassen, R. D. and Jacobs, J. 2001. "Experimental comparison of web, electronic and mail survey technologies in operations management". *Journal of Operations Management*, 19: 713–728.

Komatsu, L. K. 1992. "Recent views of conceptual structure". *Psychological Bulletin*, 112(3): 500-526.

Korosec, R. L. and Berman, E. M. 2006. "Municipal support for social entrepreneurship". *Public Administration Review*, 66: 448–462.

Kraus, S., Niemand, T., Halbertsadt, J., Shaw, E. and Syrja, P. 2017. "Social entrepreneurship orientation: Development of a measurement scale". *International Journal of Entrepreneurship Behavior and Research*, 23(6): 977–997.

Kroeger, A. and Weber, C. 2014. "Developing a conceptual framework for comparing social value creation". *Academy of Management Review*, 39: 513–540.

Lages, L. F., and Lages, C. R. 2004. "The STEP scale: A measure of short-term export performance improvement". *Journal of International Marketing*, 12(1): 36–56.

Lages, L. F., Jap, S. D., and Griffith, D. A. 2008. "The role of past performance in export ventures: A short-term reactive approach*"*. *Journal of International Business Studies*, 39: 304–325.

Langley, A. 1999. "Strategies for theorizing from process data". *Academy of Management Review*, 24(4): 691–710.

Lasprogata, G. M. and Cotten, M. N. 2003. "Contemplating 'enterprise': The business and legal challenges of social entrepreneurship". *American Business Law Journal*, 41: 67–113.

Lehner, O. M., and Kansikas, J. 2012. "Opportunity recognition in social entrepreneurship: A thematic meta analysis". *The Journal of Entrepreneurship*, 21(1): 25–58.

Lepoutre, J., Justo, R., Terjesen, S. and Bosma, N. 2013. "Designing a global standardized methodology for measuring social entrepreneurship activity: The Global Entrepreneurship Monitor social entrepreneurship study". *Small Business Economics*, 40: 693–714.

Lumpkin, G. T., Bacq, S. and Pidduck, R. J. 2018. Where change happens: community-level phenomena in social entrepreneurship research, *Journal of Small Business Management*, 56(1): 24–50.

Lumpkin, G. T. and Dess, G. G. 1996. "Clarifying the entrepreneurial orientation construct and linking it to performance". *Academy of Management Review*, 21: 135–172.

Macke, J., Sarate, J. A. R., Domeneghini, J., and Silva, K. A. 2018. "Where do we go from now? Research framework for social entrepreneurship". *Journal of Cleaner Production*, 183(10): 677–685.

MacKenzie, S. B., Podsakoff, P. M., and Jarvis, C. B. 2005. "The problem of measurement model misspecification in behavioral and organizational research and some recommended solutions". *Journal of Applied Psychology*, 90(4): 710–730.

MacKenzie, S. B., Podsakoff, P. M., and Podsakoff, N. P. 2011. “Construct measurement and validation procedures in MIS and behavioral research: Integrating new and existing techniques”. *MIS Quarterly*, 35(2): 293–334.

Mair, J., Battilana, J., and Cardenas, J. 2012. “Organizing for society: A typology of social entrepreneuring models”. *Journal of Business Ethics*, 111: 353–373.

Mair, J. and Martí, I. 2006. “Social entrepreneurship research: A source of explanation, prediction, and delight”. *Journal of World Business*, 41: 36–44.

Mair, J. and Noboa, E. 2006. “Social entrepreneurship: How intentions to create a social venture are formed”. In: Mair J., Robinson J., Hockerts K. (Eds.) *Social Entrepreneurship*. London: Palgrave Macmillan.

Martin, R. L. and Osberg, S. 2007. “Social entrepreneurship: the case for definition”. *Stanford Social Innovation Review*: 30–39.

Martins, L.L., Rindova, V.P., and Greenbaum, B.E. 2015. “Unlocking the hidden value of concepts: A cognitive approach to business model innovation”. *Strategic Entrepreneurship Journal*, 9(1): 99–117.

Massa, L., Tucci, C.L., and Afuah, A. 2017. “A critical assessment of business model research”. *Academy of Management Annals*, 1: 73–104.

Masseti, B. L. 2008. “The social entrepreneurship matrix as a ‘tipping point’ for economic change”. *Emergence: Complexity and Organization*, 10: 1–8.

McGrath, R.G. 2010. “Business models: A discovery driven approach”. *Long Range Planning*, 43(2/3): 247–261.

McMullen, J. S. 2018. “Organizational hybrids as biological hybrids: Insights for research on the relationship between social enterprise and the entrepreneurial ecosystem”. *Journal of Business Venturing*, 33(5): 575–590.

Meade, A. W and Craig, S. B. 2012. “Identifying careless responses in survey data”. *Psychological Methods*, 17(3): 437–455.

Miles, M. B. and Huberman, A. M. 1994. “*Qualitative data analysis: An expanded source book*”, 2nd Edition. Thousand Oaks: Sage.

Miller, T., Grimes, M. G., McMullen J. S., and Vogus, T. J. 2012. “Venturing for others with heart and head: How compassion encourages social entrepreneurship”. *Academy of Management Review*, 37: 616–640.

Molecke, G. and Pinkse, J. 2020. “Justifying social impact as a form of impression management: Legitimacy judgements of social enterprises’ impact accounts”. *British Journal of Management*, 31(2): 387–402.

Molloy, J. C. and Ployhart, R. E. 2012. “Construct clarity: Multidisciplinary considerations and an illustration using human capital”. *Human Resources Management Review*, 22: 152–156.

Moroz, P.W. and Hindle, K. 2012. “Entrepreneurship as a process: Toward harmonizing multiple perspectives”. *Entrepreneurship: Theory and Practice*, 36(4): 781–818.

Morris, H. M., Webb, J. W., and Franklin, R. J. 2011. “Understanding the manifestation of entrepreneurial orientation in the nonprofit context”. *Entrepreneurship: Theory and Practice*, 35: 947–971.

Morris, M., Schindehutte, M., and Allen, J. 2005. “The entrepreneur’s business model: toward a unified perspective”. *Journal of Business Research*, 58: 726–735.

Morse, J. M. 2015. “critical analysis of strategies for determining rigor in qualitative inquiry”. *Qualitative Health Research*, 25(9): 1212–1222.

Mort, G. S., Weerawerdena, J., and Carnegie, K. 2003. “Social entrepreneurship: Towards conceptualization”. *International Journal of Nonprofit and Voluntary Sector Marketing*, 8: 76–88.

Nason, R., Short, J., Williams, T., Wolfe, M., and Graebner, M. 2020. "Reframing social entrepreneurship research: Embracing a strategic perspective". Retrieved from https://onlinelibrary.wiley.com/pb-assets/Social%20Entrepreneurship%20SI%20Call%20for%20Papers-1591804194157.pdf

Newman, D. A. 2003. "Longitudinal modeling with randomly and systematically missing data: A simulation of ad hoc, maximum likelihood, and multiple imputation techniques". *Organizational Research Methods*, 6(3): 328–362.

Nicholls, A. 2008. *Social entrepreneurship: New models for social change*. New York: Oxford University Press.

Nicholls, A. 2010. "The legitimacy of social entrepreneurship: Reflexive isomorphism in a pre-paradigmatic field". *Entrepreneurship: Theory and Practice*, 34: 611–633.

Nunnally, J. C. 1978. *Psychometric Theory* ,3rd Edition. New York: McGraw-Hill.

Pache, A. C. and Santos, F. 2013. "Inside the hybrid organization: selective coupling as a response to competing institutional logics". *Academy of Management Journal*, 56: 972–1001.

Peredo, A. M. and Chrisman, J. J. 2006. "Toward a theory of community-based enterprise". *Academy of Management Review*, 31: 309–328.

Peredo, A. M. and McLean, M. 2006. "Social entrepreneurship: A critical review of the concept". *Journal of World Business*, 41: 56–65.

Perry, J.T., Chandler, G.N., and Markova, G. 2012. "Entrepreneurial effectuation: A review and suggestions for future research". *Entrepreneurship: Theory and Practice*, 36(4): 837–861.

Phillips, W., Lee, H., Ghobadian, A., O'Regan, N., and James, P. 2015. "Social innovation and social entrepreneurship: A systematic review". *Group and Organization Management*, 40(3): 428–461.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., and Podsakoff, N P. 2003. “Common method biases in behavioral research: A critical review of the literature and recommended remedies”. *Journal of Applied Psychology*, 88(5): 879–903.

Podsakoff, M. P., MacKenzie, S. B., and Podsakoff, N. P. 2016. “Recommendations for creating better concept definitions in the organizational, behavioral, and social sciences”. *Organizational Research Methods*, 19: 159–203.

Presser, S., Couper, M. P., Lessler, J. T., Martin, E., Martin, J., Rothgeb, J. M., Singer, E. 2004. “Methods for testing and evaluating survey questions”. *Public Opinion Quarterly*, 68(1): 109–130.

Ramus, T. and Vaccaro, A. 2017. “Stakeholders matter: How social enterprises address mission drift”. *Journal of Business Ethics*, 143: 307–322.

Ranjan, K.R. and Read, S. 2016. “Value co-creation: concept and measurement”. *Journal of the Academy of Marketing Science*, 44: 290–315.

Rawhouser, H., Cummings, M., and Newbert, S. L. 2019. “Social impact measurement: Current approaches and future directions for social entrepreneurship research”. *Entrepreneurship: Theory and Practice*, 43(1): 82-115.

Rey-Martí, A., Ribeiro-Soriano, D., and Palacios-Marqués, D. 2016. “A bibliometric analysis of social entrepreneurship”. *Journal of Business Research*, 69(5): 1651-1655.

Reymen, I.M.M.J., Andries, P., Berends, H., Mauer, R., and Stephan, U., and Van Burg E. 2015. “Understanding dynamics of strategic decision making in venture creation: A process study of effectuation and causation”. *Strategic Entrepreneurship Journal*, 9(4): 351–379.

Rosch, E., and Mervis, C. B. 1975. “Family resemblances: Studies in the internal structure of categories”. *Cognitive Psychology*, 7: 573-605.

Saebi, T., Foss, N. J., and Linder, S. 2019. “Social entrepreneurship research: Past achievements and future promises”. *Journal of Management*, 45: 70–95.

Santos, F. M. 2012. “A positive theory of social entrepreneurship”. *Journal of Business Ethics*, 111: 335–351.

Santos, F., Pache, A.C., and Birkholz, C. 2015. “Making hybrids work: Aligning business models and organizational design for social enterprises”. *California Management Review*, 57(3): 36–58.

Sarasvathy, S.D. 2001a. “Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency”. *Academy of Management Review*, 25(2): 243–263.

Sarasvathy, S.D. 2001b. “What makes entrepreneurs entrepreneurial?” *University of Virginia Darden School Foundation*, Charlottesville, VA.

Sassmannshausen, S. and Volkmann, C. 2018. “The scientometrics of social entrepreneurship and its establishment as an academic field”. *Journal of Small Business Management*, 56(2): 251–273.

Schaufeli, W.B., Shimazu, A., Haraken, J., Salanova, M., De Witte, H. 2019. “An ultra-short measure for work engagement: The UWES-3 validation across five countries”. *European Journal of Psychological Assessment*, 35(4): 577–591.

Schaufeli, W.B., Salanova, M., González-Romá, V., and Bakker, A. B. 2002. “The measurement of engagement and burnout: A two sample confirmatory factor analytic approach”. *Journal of Happiness Studies*, 3: 71–92.

Seelos, C. and Mair, J. 2005. “Social entrepreneurship: Creating new business models to serve the poor”. *Business Horizons*, 48: 241–246.

Sharir, M. and Lerner, M. 2006. “Gauging the success of social ventures initiated by individual social entrepreneurs”. *Journal of World Business*, 41: 6–20.

Shepherd, D. A., Williams, T. A., and Zhao, E. Y. 2019. “A framework for exploring the degree of hybridity in entrepreneurship”. *Academy of Management Perspectives*, 33(4): 491–512.

Short, J. C., Moss, T. W., and Lumpkin, G.T. 2009. “Research in social entrepreneurship: Past contributions and future opportunities”. *Strategic Entrepreneurship Journal*, 3: 161–194.

Simmering, M. J., Fuller, C. M., Richardson, H. A., Ocal, Y., and Atinc, G. M. 2015. “Marker variable choice, reporting, and interpretation in the detection of common method variance: A review and demonstration”. *Organizational Research Methods*, 18(3): 473–511.

Smith, W. K., Gonin, M., and Besharov, M. L. 2013. “Managing social-business tensions: A review and research agenda for social enterprise”. *Business Ethics Quarterly*, 23(3): 407–442.

Snihur, Y. and Zott, C. 2020. “The genesis and metamorphosis of novelty imprints: How business model innovation emerges in young ventures”. *Academy of Management Journal*, 63(2): 554–583.

Sosna, M., Trevinyio-Rodriguez, R.N., and Ramakrishna-Velamuri S. 2010. “Business model innovation through trial-and-error learning: The Naturhouse case”. *Long Range Planning*, 43(2/3): 383–407.

Sousa, C. M. P. 2004. “Export performance measurement: An evaluation of the empirical research in the literature”. *Academy of Marketing Science Review*, 9: 1–22.

Steger, M. F., Dik, B. J., Duffy, R. D. 2012. “Measuring meaningful work: The work and meaning inventory (WAMI)”. *Journal of Career Assessment*, 20(3): 322–337.

Stephan, U., Patterson, M., Kelly C., and Mair, J. 2016. “Organizations driving positive social change: A review and an integrative framework of change processes”. *Journal of Management*, 42(5): 1250–1281.

Stevens, R., Moray, N., and Bruneel, J. 2015. “The social and economic mission of social enterprises: Dimensions, measurement, validation, and relation”. *Entrepreneurship: Theory and Practice*, 39: 1051–1082.

Strahan, R. and Gerbasi, K. C. 1972. “Short, homogeneous versions of the Marlow-Crowne social desirability scale”. *Journal of Clinical Psychology*, 28(2): 191–193.

Strauss, C., Taylor, B. L., Gu, J., Kuyken, W., Baer, R., Jones, F., and Cavanagh, K. 2016. “What is compassion and how can we measure it? A review of definitions and measures”. *Clinical Psychology Review*, 47: 15–27.

Strese, S., Gebhard, P., Feieraband, D., and Brettel, M. 2018. “Entrepreneur’s perceived exit performance: Conceptualization and scale development”. *Journal of Business Venturing*, 33(3): 351–370.

Suddaby, R. 2010. “Construct clarity in theories of management and organization: Editor’s comments”. *Academy of Management Review*, 35: 346–357.

Sun, S. L. and Im, J. 2015. Cutting microfinance interest rates: An opportunity co-creation perspective. *Entrepreneurship: Theory and Practice*, 39(1): 101–128.

Tang, J., Kacmar, M., and Busenitz, L. 2012. “Entrepreneurial alertness in the pursuit of new opportunities”. *Journal of Business Venturing*, 27(1): 77–94.

Teece, D.J. 2010. “Business models, business strategy and innovation”. *Long Range Planning*, 43(2/3): 172–194.

Thompson, J. L. 2002. “The world of the social entrepreneur”. *International Journal of Public Sector Management*, 15: 412–431.

Thornton, P.H. and Ocasio, W. 2008. "Institutional logics". In R. Greenwood, C. Oliver, R. Suddaby, and K. Sahlin (Eds.), *The Sage handbook for organizational institutionalism*, London: Sage.

Uebersax, J. and Grove, W. 1989. "Latent structure agreement analysis". *RAND Publication* Series: Santa Monica, CA.

United Nations. 2020. "Goal 12: Ensure sustainable consumption and production patterns". Retrieved from https://www.un.org/sustainabledevelopment/sustainable-consumption-production/

Voronov, M. and Vince, R. 2012. "Integrating emotions into the analysis of institutional work". *Academy of Management Review*, 37: 58–81.

Waddock, S. A. and Post, J. E. 1995. "Catalytic alliances for social problem solving". *Human Relations*, 48: 951–973.

Weerawardena, J. and Mort, G. S. 2006. "Investigating social entrepreneurship: A multidimensional model". *Journal of World Business*, 41: 21-–35.

Welter, C. and Kim, S. 2018. "Effectuation and risk under uncertainty: A simulation model". *Journal of Business Venturing*, 33: 100–116.

Williams, L. J., Hartman, N., and Cavazotte, F. 2010. "Method variance and marker variables: A review and comprehensive CFA marker technique". *Organizational Research Methods*, 13(3): 477–514.

Wittgenstein, L. 1953. *Philosophical investigations* (Trans., G. E. M. Anscombe). Oxford, UK: Basil Blackwell.

Wry, T. and Haugh, H. 2018. "Brace for impact: Uniting our voices through a social impact frame". *Journal of Business Venturing*, 33: 566–574.

Wry, T. and York, J. G. 2017. "An identity-based approach to social enterprise". *Academy of Management Review*, 42: 437–460.

Yeung, J. F. Y., Chan, A. P. C., and Chan, D. W. M. 2012. "Defining relational contracting from the Wittgenstein family-resemblance philosophy". I*nternational Journal of Project Management*, 30(2): 225–239.

Yin, R.K. 2009. *Case study research: Design and methods*, 4th Edition. London, U.K.: Sage.

Yunus, M., Moingeon, B., and Lehmann-Ortega, L. 2010. "Building social business models: Lessons from the Grameen Bank". *Long Range Planning*, 43(2/3): 308–325.

Zahra, S. A., Gedajolvic, E., Neubaum, D. O., and Shulman, J. M. 2009. "A typology of social entrepreneurs: Motives, search processes and ethical challenges". *Journal of Business Venturing*, 24: 519–532.

Zahra, S. A., Newey, L. R., and Li, Y. 2014. "On the frontiers: The implications of social entrepreneurship for international entrepreneurship". *Entrepreneurship: Theory and Practice*, 38(1): 137–158.

Zahra, S. A. and Wright, M. 2016. "Understanding the social role of entrepreneurship", *Journal of Management Studies*, 53 (Special Issue): 610–629.

Zhao, E. Y. and Lounsbury, M. 2016. "An institutional logics approach to social entrepreneurship: market logic, religious diversity, and resource acquisition by microfinance organizations". *Journal of Business Venturing*, 31: 643–662.

Zott, C., Amit, R., and Massa, L. 2011. "The business model: Recent developments and future research". *Journal of Management*, 37(4): 1019–1042.

APPENDIX

Characteristics of Interviewees and Interviews (Study I)

Interviewee		Interviews		Professional background		
#	*Profile*	*# A4pg*	*Duration*	*Nonprofit*	*Business*	*Public Sector*
1	Serial award-winner social entrepreneur	17	01:04:59	Volunteer, social worker	Marketing Education	
2	Business strategy consultant and marketeer at internationally reputed companies and social entrepreneur	14	01:19:38	Volunteer	Multinationals, Business School	
3	Assistant professor (adjunct) of SE and social entrepreneur	20	01:12:06	Social entrepreneur, volunteer	Telecom, Entrepreneur, Business School	
4	Social and public worker	21	01:10:17	Social worker, volunteer		Municipality
5	Owner of international business consultancy company and philanthropist	15	01:00:11	Association	Consulting firm, Start-ups, CSR	
6	Entrepreneur and award-winning social entrepreneur	19	01:07:31	Social entrepreneur, volunteer	Serial business entrepreneur	
7	Social worker	16	01:07:40	Social worker, researcher		
8	Assistant professor (adjunct) and academic researcher in social sector, and social entrepreneur	16	01:10:42	Researcher, Social institution, Volunteer	Business school	Research on public policy in social sector
9	Ashoka fellow and serial social entrepreneur	11	00:44:27	Social entrepreneur, Social institutions	Business entrepreneur, Business School	Several public agencies
10	Vice-president of the largest national institute supporting nonprofits	17	01:06:45	Volunteer, Social Worker	Medical technician	Public Hospital, Public agency
11	Impact investor and Ashoka Fellow	6	00:21:56	Social entrepreneur	Consulting, Impact investing	
12	Head of corporate responsibility at a Bank	15	00:47:26	Associations	CSR, Philanthropy	Public administration
13	Head of the largest national institute supporting nonprofits	14	00:58:06	Social institution		Several public agencies, municipality
14	Assistant professor and researcher on SE and social entrepreneur	16	01:06:10	Social entrepreneur	Telecom, Entrepreneur, CSR	

Interviewee		Interviews		Professional background		
15	Associate professor and researcher on social innovation	13	01:01:57	Volunteer	Scholar at Business School	
16	Academic researcher in social enterprises	17	00:50:45		Post doc at Business School	
17	Academic researcher and social worker	18	00:50:01	Social worker, researcher		
18	MBA manager at large international philanthropy foundation	13	01:00:17	Foundation	Business school	
19	Ashoka fellow, Social and Business Entrepreneur	14	01:01:50	Foundation, social entrepreneur	Business entrepreneur	
20	Academic, corporate agent and head of Portuguese largest public SE funding	28	01:26:12	Academic, Volunteer	Business graduate	Public agency
21	Founder, head and volunteer at award-winning social enterprise	23	01:06:56	Volunteer at social enterprise	Manager at a family business	
22	Manager at an award-winning social enterprise	47	01:31:32		Business school, Banking, Strategic consultant	
	Total	390	23:07:24			